



Changing Horizons in Geography Education

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PART ONE

Exciting Geography

How to design and implement exciting geographical learning experiences in the classroom

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Abstract

This paper deals with the design and implementation of exciting geography's learning experiences in secondary schools. First of all we discuss some theoretical and methodological aspects involved in the design of what the exciting geographical learning experiences can be and what we need to do to achieve success in its implementation in our schools. Secondly we describe the process step by step and then we present a Portuguese experience developed by novice teachers in a teacher training program at Lisbon University.

Key words: exciting geography, learning experiences, discovery learning, constructivism, fieldwork

Introduction

This paper deals with aspects of *Exciting Geography*. It concerns the problem of how it is possible to design innovative and exciting learning experiences, which are able to stimulate the interest of students. This should promote the discovery and the exploration of the world around us, and therefore, to establish a real and meaningful geographical education in secondary schools. In theory, Geography has a huge formative potential (Geographical Association, 2000), but in practice, due to several factors, geographers, both researchers and teachers, have experienced great difficulty in mobilising this formative potential in student's education. Geography is often considered a boring and useless subject concerned with memorising less interesting facts.

There are three main issues:

(i) What is the meaning of exciting geography? The question suggests what does exciting geography mean and what can we do to make geography an exciting subject in our schools? Concerning this topic a number of viewpoints were expressed at the 2004 HERODOT Conference in Nicosia, and so, this paper seeks to reconsider some of the ideas presented there (Cachinho, 2004);

(ii) There should be items present in the learning experience so that it becomes exciting to students. The answer to this issue implies a brief thought about the contents, teaching methods and the environment for learning;

(iii) How to put theory into practice? An example of this will be explained with a Portuguese experience developed by novice teachers in a teacher training program at Lisbon University.

Exciting geography! What does this mean?

Exciting may signify several things. In the Oxford Advanced Learners Dictionary of Current English (2000), we can find the following:

Exciting: adj. = causing great interest or excitement. **Interest:** i) Wanting to know more = the feeling that you have when you want to know or learn more about sb/sth; ii) attraction = the quality that sth has when it attracts sb's attention or makes them want to know more about it

Excite: i) to make sb feel very pleasure, interested or enthusiastic, especially about sth that is going to happen; ii) to make sb feel a particular emotion or react in a particular way

Oxford Advanced Learners Dictionary of Current English (2000), Sixth Edition

In this context what does exciting geography mean and what can we do to make geography an exciting subject in our schools? In fact it may signify many things, even if our thinking is composed by multiple convictions, intuitions, and doubts. Perhaps it is not too controversial to state that Geography will be exciting if it manages to be interesting to students, feeding and stimulating their interest in knowing more about the world, whether we are talking about their neighbourhood or the most distant country, and so helping them to solve real-life problems.

In my opinion, to make geography an exciting topic, it will imply several changes, namely:

- (i) **Turn geography into an open window for knowledge of the world around us, and the learning experience into an adventure.** To attain such a goal we need to intervene at two levels: the level of substantive and procedure contents, on one hand, and learning/teaching methods, on the other hand. As to content, it is necessary to anchor teaching in the learning of basic concepts, and key questions in which geography builds its identity (Figure 1). In what concerns the methods, Saint-Exupéry (1946) shows us a possible way. In his book *Le Petit Prince*, this writer tells us about geographers and explorers, making a clear distinction between them. The former are concerned with the location of the most important elements of the planet Earth:

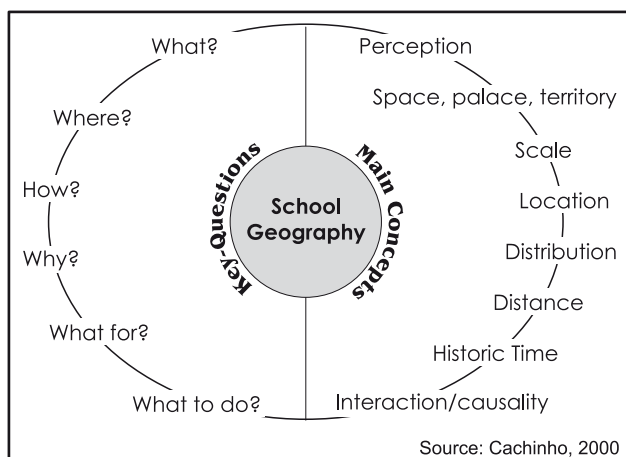


Figure 1. Key-questions and main concepts of geography

oceans, rivers, cities, mountains and deserts. The latter are mainly concerned with the discovery of those elements. So, even if we disagree with the idea of geography of this writer, it seems that the best way to involve students in the process of learning is to turn them into explorers. Explorers in the sense of someone who tries to discover, who searches for, examines or observes to understand the world and its problems. Allowing students to perform the role of explorers, teachers, not

only increase their motivation to learn but also make it possible for them to be aware of how limited their knowledge is about worldwide problems, thus finding a real sense in geography education.

- (ii) **We need geography classes to “give us wings not cages”** (Alves, 2004). In cages, birds unlearn the ability to fly. They are no longer birds. Because flying is in their nature. An exciting geography doesn't love caged birds, it creates wings for them. It exists to give birds the courage to fly. This means that geography must offer food and entertainment to students, or if we prefer the Rubem Alves metaphor, we need to offer students **tools** and **toys**. “Tools” are sources of knowledge that allow us to solve everyday problems. Considering geography, tools are the knowledge and skills that teach us to “think about the space and place” and so, that we can “understand the world around us” and “act in it” in a conscious way. “Toys” are those things without real utility, but give pleasure and joy to the soul. Toys create the incitement and predisposition to find the tools and mobilise them in the right way trying to solve daily problems.
- (iii) **We need classrooms to become effective learning places.** In our schools, a lot is taught but little is learned. Teaching spaces are focused on the teacher, but learning places depart from the student, considering several dimensions: their ideas, their potential, and their limitations... So if we want classrooms to deepen their dimension of learning places it is fundamental to intervene in three domains closely connected: a) recentre the learning/teaching process; b) reposition students and teachers in pedagogical practices; and c) change classroom environments and its ambiances.

How to design exciting geographical learning experiences

Geography will become more exciting if learning experiences offered to the students improve. It is through these innovative experiences that students will find sense in what they learn, and consequently, in geography education. Several items must be present in the design of an exciting geographical learning experience. It must put together interesting themes, innovative working methods and techniques, enjoyable working environment and the discussion of real-life problems, as these are the ones students face and in fact what motivates them to learning. In Figure 2 we present, in a scheme, the methodology, step by step, for the design of experiences we consider exciting both for teachers and students. Our methodology is based on the scientific work methodology. These experiences are also likely to be exciting to teachers, as while investigating about the subjects that will be explored in the classroom they are creators and not just reproducers of geographical knowledge. The experiences are also exciting to students, as their role in the classroom changes from spectators to actors. In face of real social and environmental problems to which it is necessary to find solutions, students, using investigation methods, and helped by their teachers, start having the main role in the discovery of the most appropriate solutions. The teacher, now freed from the main role in action, may observe the performance of the students and use it as a way of investigation. This investigation will allow the teacher to know the “ideas” and levels of performance of students, and work from

mistakes and obstacles to learning. Only this way the teacher can design and plan good experiences and involve students in its development.

With these learning experiences students may develop the capacity of going from perceived and experienced space to rational and thinking space, developed through data analysis and investigation, to reach integrated space and action space, in which they will be asked to show their newly achieved geographical skills and competences.

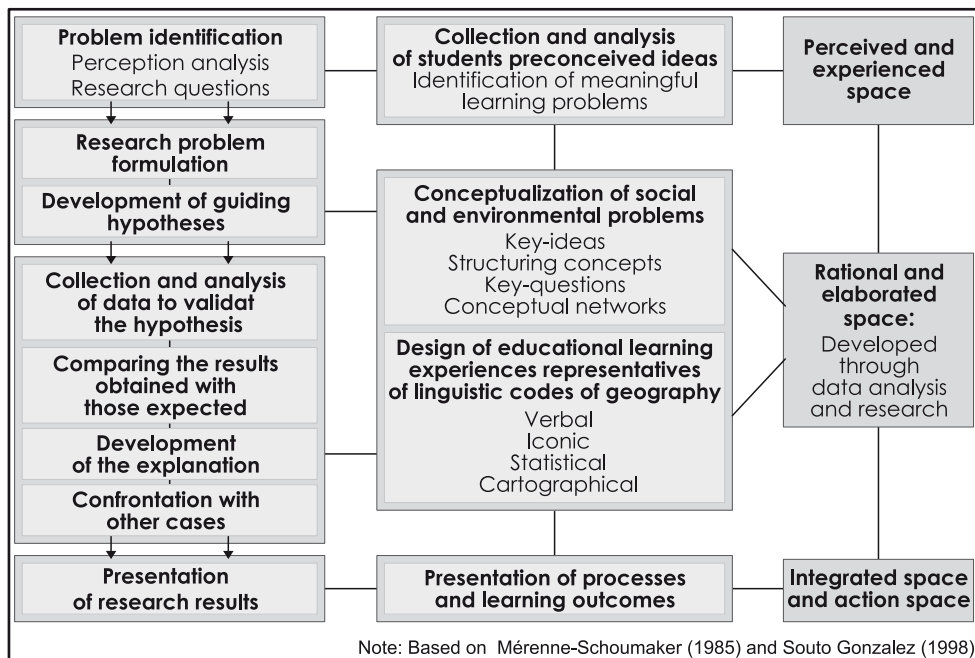


Figure 2. Scientific methodology and design of exciting geographical learning experiences

Theory into practice: a Portuguese experience

During 2004 we had the opportunity to put theory into practice. At the annual seminar on “Geography didactics” twenty trainee teachers designed educational projects and implemented them in the classroom with Key-Stage 3 (12–14 years old) students, during the school term. These projects involved the analysis of social and environmental problems in the area of Lisbon or its surroundings. They included as examples:

- The role of river Tagus in the organization of economic activities in the axe of Vila Franca de Xira,
- Impacts of tourism in Castelo de Bode Dam,
- Sustainable development of National Park of Aires and Candeeiros,
- Effects of urban pressure and beach tourism in changing land use in Costa de Caparica and
- The localization of a regional shopping centre in an area of extreme ecological vulnerability in southern margin of the metropolitan area of Lisbon.

The approach of these problems were designed in the context of the Portuguese National Curriculum, and took into consideration the flexibility allowed by the

Ministry of Education. Having in mind the development of geographical knowledge, competencies and skills, the investigation projects involved a varied range of activities implemented in the **classroom** and **outdoors**, such as: first hand investigation of places, environments and human behaviour through fieldwork; use of new technologies, like Internet search engines, digital cameras, database and desktop-publishing packages; drawing and interpretation of maps, plans and graphs; gathering, recording and presentation of evidences; carrying out of geographical enquiries; exploration of textbooks, newspaper and magazine articles and other writing resources; or involvement of role playing to illustrate the different points of view about the subject of the different groups.

It is important to bring together the traditional learning activities developed in the classroom with fieldwork because the “outside” environment is, par excellence, the geographer’s laboratory. It is outdoors where, from direct experience, students can investigate people, places, their interactions, patterns, process, and environmental issues – the true nature of geography. Besides, places exist within our hearts and minds. We audit them through sight, smell, sounds and touch. So, only “outside” students can develop a personal “sense of place”; maybe one of the most meaningful dimensions of life.

Due to problems of limited space it is not possible to make here an evaluation of the research projects. Still, considering the opinion of students and teachers involved, we have no doubt that we must continue to explore its potential. As a matter of fact, some of the experiences presented here will be published on the website of the project INTERFACES that we expect to develop in the near future as a place of creation, diffusion and promotion, among Portuguese society, of good practises in geography education.

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The use of ICT in Geography departments in European higher education

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Abstract

Geography is a very visual and contemporary area of study in higher education. It has a critical role to play in providing lifelong learning skills and competencies for society, including those concerning information and communication technologies (ICT). This paper reviews some of the results of a survey undertaken at the birth of the HERODOT Thematic Network for Geography in higher education in late 2002. It considers the use and implementation of ICT by academics, the student learning approaches encouraged and the professional development needs of academics. The lack of implementation of modern ICT, especially elearning, and low level of integration of ICT in Geography are reported on. The paper then assesses some of the issues involved in encouraging change and concludes with the members' perceived role of network.

Key words: ICT, elearning, Bologna, professional development, HERODOT network

Introduction

In Europe, higher education systems are in a state of great change and as higher education organisations experience massive reform it is likely that those involved will need to work in many different ways. Higher Education institutions across Europe are undergoing significant changes, not only of their layout and structure, but also their own approaches to education (Sangra, 2002). The comparative analyses of such systems can lead to benchmarking and standardisation of approach, through for example the TUNING Project (Haug, 2001).

One significant development has been the rise of a computer technology that has the power to transform education into innovative learning and teaching situations. Innovation in the use of information and communications technology (ICT) has a huge potential for widening access and supporting learners as and when they need it (Richardson, 2001). So higher education should be responding to new kinds of students, those who want 'anytime-anywhere' courses which suit them rather than what the teachers want to deliver. The significance of this has yet to be realised.

The affordability and wider access to today's powerful information technologies should promote the widespread development of modern education (Wagner and Szacs, 2000). An interactive computer-based approach to teaching and learning should be matching the powerful changes that are taking place in our rapidly evolving information culture.

eEurope and the Bologna agenda

In higher education terms, the European goal is to become the most competitive and dynamic knowledge base in the world capable of sustainable economic growth with more and better jobs and greater social cohesion (Commission of the European Communities, 2004). This will be achieved partly through the use of new technologies where eEurope is the European action which actively promotes the information society to all in Europe (Commission of the European Communities, 2002). Some of its core priorities have been identified as eLearning, eWorking skills and eInclusion (Oliveira, 2002). The European Commission thus strongly advocates the use of ICT in education and training in order to bring access to educational opportunities in a more equally distributed fashion throughout an enlarging Europe. There should be a greater emphasis on the types of cooperation and collaboration in learning brought about by communication and information technologies throughout Europe (Reding, 2000). ICT for education has become very significant in political and financial terms, with increasing investment from powerful organisations that often have little real knowledge of education.

The Bologna process is not simply about transforming structures and educational content; it is connected with lifelong learning and to the needs of society. Higher education institutions are now expected to be actively involved in lifelong learning and to include the new information and communication technologies. Bologna provides common standpoints for all higher education institutions where a relevant curriculum is needed to answer the needs of society. Across Europe Geography seems to have been enslaved in a disciplinary curriculum, Bologna should not encourage us to simply transfer the old curriculum into a changed format. Geography has the potential to be the subject that can address the needs of Europe, so we need to create new learning opportunities that are relevant to the students. These students are also making new demands on higher education: They increasingly require tailor-made, learner centred courses that focus on their needs and their demands. The resultant education will thus need to develop the learning skills of the student, such as critical thinking, teamwork, inter-cultural awareness, problem solving and co-operation. The significance role and of ICT and particularly elearning in delivering this should not be underestimated.

e-Learning

There is no simple definition of what constitutes elearning. The term could describe the use of software that is designed to manage or administer various aspects of learning which are decided upon and implemented by a tutor (Resnick and Resnick, 1992). eLearning software might consist of a core set of features which would include the delivery of learning materials, administration of learners including the tracking of progress, assessment of learners, different forms of communication, planning, organisation and timetabling facilities, searching tools and online help (Milligan, 2000).

Most elearning software appears to offer the same set of solutions. Many of these products claim to provide an integrated learning space, which is well suited to the

support of student-centred learning, a core mission of Bologna. Laurillard's (2002) mapping of methods with educational activities, are support for the fact that it is not the environments themselves that support or enhance learning, but the ways in which they are used if suitable learning is to take place (Donert, 2004). Simms (2000) maintains that it is through the active engagement with learning that elearning can enhance the student experience. The major dimensions being characterised by:

- Learners – the *who* of the learning process
- Content – the *what* of the learning process
- Pedagogy – the *how* of the learning process
- Context – the *when* and *where* of the learning process.

HERODOT Members Survey

In late 2002, the 81 members of the HERODOT thematic network for Geography in higher education were asked to complete an in-depth questionnaire about the state of Geography in their institutions, their work and in their countries. In all 65 partner

Table 1. ICT and teaching Geography in higher education

Activity	%HE departments	
Teaching about ICT	GIS	71%
	Remote Sensing	60%
	IT in Geography	52%
Teaching with ICT	Computer assisted learning	45%
	Distance learning	12%
	Online learning	9%
Research	GIS	48%
	Remote Sensing	35%
	IT in Geography	22%

institutions responded based in 31 different countries. Of these 12 organisations were only involved in teacher training, not offering undergraduate or post-graduate Geography degrees. Table 1 shows the proportion of departments teaching about ICT, with ICT and doing research in ICT in Geography at that time. Over half of the departments offered distinct courses in ICT in

Geography; however few used either distance learning or elearning to deliver courses for their students. Technology-oriented Geography courses have thus been developed in most academic departments but using online learning opportunities or multimedia was not well developed.

IT and GIS practicals were taught in most higher education Geography departments. There were two types of courses identified, introductory courses which were commonly developed for study in years 1 and 2, these courses were often followed by more advanced, detailed or specialist courses in later years (Donert, 2004).

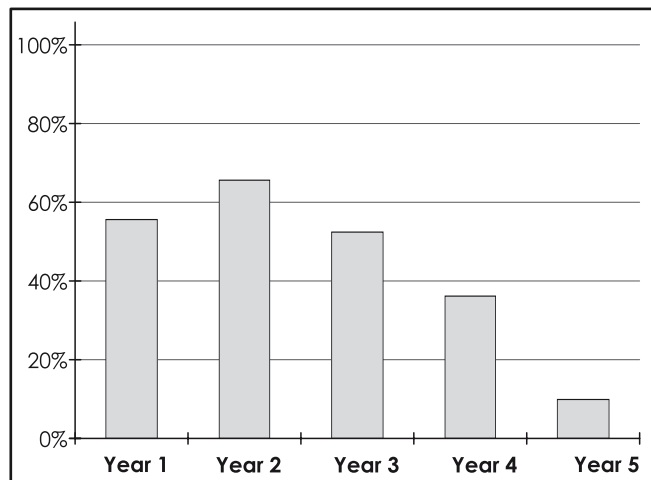


Figure 1. IT and GIS practicals by year of study

The main learning approaches encouraged by academics and used by students were also defined in the survey (Figure 2). Surprisingly, only just over one-half of the departments (56%) considered that they developed, as a main theme, student-centred learning approaches, this was fewer than those promoting teacher-organised approaches. The teacher-centric models appeared to prevail with traditional lecture-seminar-practical activities dominant with little concern for the student experience or real needs.

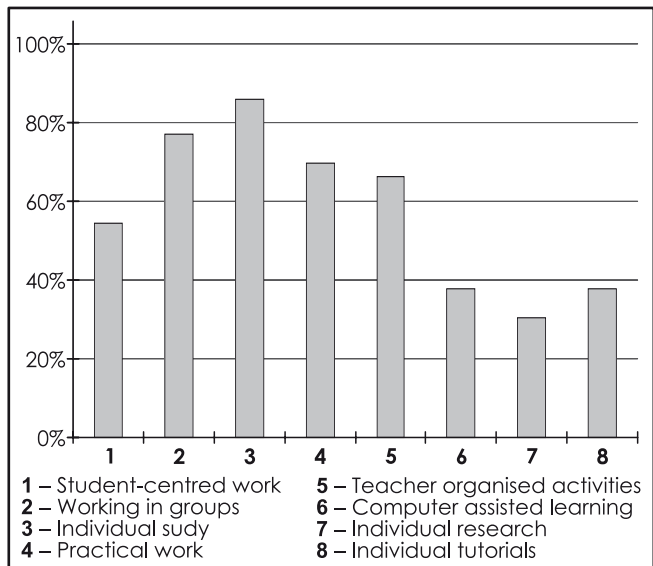


Figure 2. Main learning methods used by students – percentage of departments

Concerning the use of ICT, in all only 38% encouraged

students to use computer assisted learning. This suggests that although geographical studies are strongly related to contemporary issues, current affairs and visual information sources, the value of information acquisition and the opportunities for communications through ICT in the learning process are greatly undervalued, It would thus appear that few European geographers have been at the forefront in developing courses and materials which incorporate or embed new technologies.

It was noticeable that the range of main student learning approaches suggested by geographers varied significantly (Table 2). Most departments encouraged many different approaches and several included all those mentioned in the survey, but in one-third of the replies traditional teacher-orientated activities seemed to dominate with little variety encouraged. These were not just found in higher education institutions from EU countries nor were they only from new member states; but the approaches favoured seemed to depend mainly on local circumstances and individual preferences. With the ongoing implementation of Bologna in European institutions this pattern is likely to significantly change in future years. The approaches to implementing and managing such change will also need consideration.

Number of main learning approaches	% institutions
1–2	10%
3–4	42%
5–6	34%
7–8	15%

The issues involving IT-based practical work were also researched and this revealed the existence of three main situations. More than one-quarter (27%) of the institutions considered themselves to be technologically well-equipped. They mentioned the wide range of facilities they had available for both study purposes and research. In some cases the laboratory facilities had become self-funded by income-

generating activities, which included research contracts, EU projects, running professional development courses for others or through national funding. In other cases there was central funding available to support these activities.

More than half of the institutions (55%) were facing difficulties in maintaining the quality and technical relevance of the ICT-based courses they were trying to run. They identified the main issues as a lack of up-to-date equipment, having too few useful resources (including readily available data), financial shortages and low levels or even no technical support. A final group of institutions (18%) indicated that they were unable to offer any IT-based activities due to inadequate or non-existent facilities, too many students to practically cope with and the lack of training or expertise of staff. One-third of the responses also noted that, despite the scientific and technological nature of many geographical courses, the obvious needs for employability and in some cases the student demands for geo-technology rich learning opportunities, the status of Geography at an official level is still considered to be a non-technical or non-scientific discipline. Hence the levels of funding and support for laboratory courses do not realistically reflect the needs of the subject, the students and the workplace. Institutions thus need to be supported at national (and European) policy level if they are to have the right conditions to develop suitable courses for their students.

The use of ICT in higher education has experienced rapid growth in recent years. However in the universities surveyed, the technology appeared to be mainly used by academics to prepare courses (Table 3), rather than to be implemented or integrated into the courses themselves. Nor were there any plans in most departments to do this, as of 141 subject-based initiatives identified in the survey, only 28 were related to ICT, 12 of these were concerned with GIS developments and only 8 associated with elearning. Specific software developments in geography were hardly mentioned at all. So, the involvement of geography departments and geographers in the use of ICT is relatively low and the profile of online activities and innovative learning is limited. This was borne out by the activities at the HERODOT workshop on *Exciting Geography* held in Cyprus in June 2004. Of the 30 members of the network who attended and presented papers, 12 were teacher trainers and 16 were specialists in geoinformation or GIS. As the workshop was offered openly to all members of the network, it was clear that few ‘academic’ geographers appear to have embraced the importance or significance of innovation in learning and teaching Geography. It was also surprising that only five of the papers addressed the use of ICT and only two were about using elearning in geography. This is worrying if geography is to be delivered

Table 3. Main resources used to develop teaching

Amount of use in developing courses	Online learning sources	World Wide Web	Electronic Books	On-line Journals
High	6%	38%	0%	5%
Average	17%	46%	8%	29%
Low	15%	11%	8%	34%
No use	62%	5%	85%	32%

as a vibrant exciting subject at university. New tools, techniques and pedagogies have to be developed implemented and researched. This indicates the need to raise the profile and importance of ICT within the subject through Herod activities and beyond if the learning opportunities afforded by ICT are to be achieved. The significance of professional development of academics cannot be over-stated.

Continuing Professional Development (CPD)

As ICT is becoming increasingly pervasive, in the home and the workplace, the need for training and continuing professional development (CPD) has never been so great (Sandelands, 1998). The speed of change in ICT also necessitates that we reorganise the present education system. So, though ‘traditional’ courses in Geography will still be a major part of university provision, clearly there are many other types and forms of training required to meet the expanding demands. It is expected that the most likely growth will be in providing professional courses and updates offered through distance learning or via elearning (Blake *et al.*, 2003, Mooney and Martin, 2003; Sorensen, 1998).

In Europe, apart from some notable exceptions, there appears to be very few professional development opportunities available for academic Geographers in higher education and so there are very few which allow academics to learn about new technologies and innovative teaching strategies (Donert, 2003). Respondents to the HERODOT survey cited that a total of 75 CPD events had been attended in the previous two years (Table 4). While some academics had been well off in CPD course provision and two of the UK respondents were CPD expert trainers for the LTSN-GEES Geography Subject Centre, most European academics had either not attended any professional development, or else had only been to one session in the previous two years. This shows the paucity of local and national provision. Of the courses attended, 28 (36%) were ICT-related but only 7 were linked to e-learning. This is of greater concern when only one of the elearning courses was considered to be of high quality. The ICT CPD mainly appeared to focus on the technical aspects without much concern for pedagogy, practical needs or implementation. The HERODOT survey also highlighted the professional needs, which showed that more than one-third of the academics wanted to have further ICT training and 20% required elearning training. However, CPD opportunities remain largely unavailable to geographers or else are not taken up by geographers working in European higher education. Geography in many countries has

Table 4. Professional training events in past 2 years (65 replies)

Number of CPD activities	% replies	Type of CPD activity	% replies
0	38%	GIS	13%
1	31%	e-learning course	9%
2	14%	specific computer course	4%
3	8%	basic ICT course (Office)	5%
>3	6%	web page development	4%
CDP trainers	3%	Others, non-IT	64%

perhaps been over-concerned with its own subject content, status, situation and context, leading to two-thirds of the CPD being subject specific training activities. Research priorities also dominated over

teaching needs in terms of CPD. So, the European thematic network for Geography in higher education (HERODOT) has been established in part to address these concerns and to support academics in their implementation of the Bologna process. Hence the delivering change through Bologna is not being matched by the necessary support for those involved. The significance of innovation and change is dealt with partly in the next section.

Professional development and change

ICT challenges our 'traditional' educational system and its eminence has significant implications for the future. Organisations react to change in many different ways and they will take up possible new opportunities at different rates, but understanding the process of change is important for implementation. The degree of inertia or resistance to change will be related to many factors. In Geography much opinion, including that shown in the papers for this HERODOT Conference, appears to suggest that we need well-defined reform, new bachelor and masters courses, not just changed in name only, which are integrated with relevant ICT with pedagogical approaches to support good materials for learning. While there are many good examples of pioneers that demonstrate that change using ICT is possible and practical, the issue that we need to address is what professional development is necessary to enable the geography community to transform its European education space and populate it with exciting, relevant and vibrant new courses.

In total, the 65 institutions identified only ten creative initiatives involving the use of ICT in Geography. There were some major developments, for example in creating digital landscape models equipped with logically integrated data for various purposes in 2D, 3D and 4D event modelling, the development of major new courses using elearning software and the establishment of a Geography education portal. Several other initiatives reported on planned action research for example in the use of the Web, digital portfolios or presentation software in classes. However, most of them only appeared to involve teacher education courses in Geography rather than academic geography courses. So it seems like Geography was, with only a few exceptions, at a very early phase in the adoption of new technologies for learning and teaching. So we should be considering how and why eLearning, multimedia and geo-software opportunities should be implemented so that academics can focus on how to construct courses based on the learning requirements of the students rather than the teaching approaches we want to offer. In a higher education increasingly governed by market forces our courses need to match the expectations of the learners, hence useful quality guidelines in terms of technical issues, pedagogical approaches and content should be established and used.

Conclusions

If the perceived role of a Thematic Network like HERODOT is to stimulate and support change (Figure 3) by providing examples that are retrievable by tutors/teachers and give access to best practise and the state of the art, then its actions must relate to the activities of a knowledge society. Today we are all expected to

include ICT as part of the educational approaches we promote. However, much Geography education in Europe has not yet embraced these needs. It remains largely dominated by traditional teaching activity, which is fairly resistant to the adoption of new approaches. As a result geographers are not, except in the case of GIS, in a position to take advantage of the potentially positive impacts of ICT. It is likely that many Geography departments will soon seek to offer online courses in the near future in order to expand their provision and more importantly increase income generation rather than doing it to in meet the educational needs of computer-

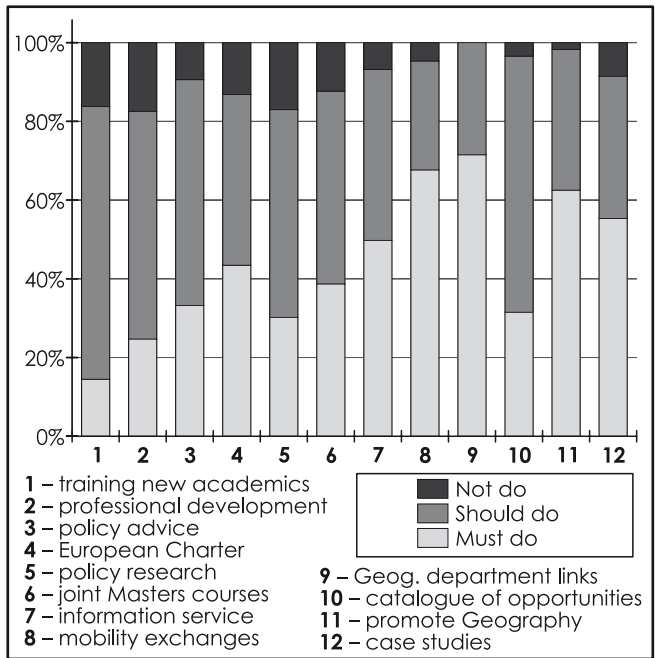


Figure 3. Perceived role of the HERODOT network (Cooper, 2000)

literate students

Online learning provides opportunities for significant levels of interaction (Zell, 2001). eLearning has been shown to be an excellent facility for the development of collaborative skills including cooperative problem solving and teamwork activities (Simms, 2000). Therefore, integrating eLearning within Geography courses would encourage deeper, more reflective and student centred learning approaches, meeting the core goals of Bologna. The support mechanisms can be used to help most students reach their goals. So, as a high priority, HERODOT must consider the potential of new technologies in geographical education as we develop our educational structures through the Bologna process. In many countries, geography as an academic subject is at risk and yet geography and geographers do not seem flexible enough to integrate and incorporate multimedia, the Web and e-learning into our university courses. We need to embrace these new technologies, but new pedagogies which are more relevant to the 21st century will need to be employed. So, we should focus on the meaningful embedding of computer-based activities that will offer enhanced learning opportunities. These will help develop learner autonomy and encourage the establishment and building of professional communities of geographers.

There are strong implications that e-learning should change the way that higher education is delivered. This research thus suggests that a more in-depth survey of opinions and attitudes are required towards the use of new technologies. This survey is currently being undertaken by members of the HERODOT network.

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Primary Childrens' Understanding of Fieldwork Experiences

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Abstract

Fieldwork activities in England are currently under threat owing to concern over the safety of pupils. It is therefore essential for geography educators to have clear evidence of the benefits of fieldwork in being able to develop primary children's understanding of the world. The research was based on field visits made to the coast by children aged 10–11 years in 2004. The purpose of the visits was to develop their understanding of coastal processes. Following the fieldwork, pupils were asked to represent what they had learnt and how they thought they understood coastal processes. Analysis of the children's work provided a number of insights into their understanding: these are discussed within the paper, along with some implications for fieldwork design and justification.

Key words: Primary Education, Geography, fieldwork, Teacher Training

Introduction

Fieldwork is viewed as an essential part of geography by many English primary teachers but there is increasing pressure on them to justify its presence in the curriculum (Revell, 2002). There is also concern from some teacher unions and senior management about the legal issues surrounding fieldwork (Clare, 2004). They can refer to theoretical sources (Smith, 1987:209) to find backing for their position. Practical texts on developing and leading fieldwork provide more evidence to support their case (Richardson, 1998). There is, however, little research evidence at primary school level which examines how and what children actually learn through fieldwork. Nundy (1999) is an exception to this and provides us with some interesting starting points for further research. In particular he noted the positive impact on long term memory as a result of pupils being in memorable places. Rickinson (2001) presents a review of research on outdoor learning but this contains relatively few references to fieldwork undertaken by primary aged children. The research discussed in this paper offers some evidence of what pupils learn through fieldwork and how fieldwork design may affect their understanding.

Pilot research

A pilot project was established in 2003. The teachers had devised a programme of practical activities for each child to experience during their field day. These were based on concepts such as sea defences, longshore drift and coastal erosion. The author attended this day as an observer. These were then followed up back at school. Soon after, 150 pupils in five classes were asked to represent their learning and understanding of coastal processes. Five teachers were asked to do this with their

class using identical instructions and resources. Analysis of the 150 pieces of work provided some evidence of pupils' understanding. However, it was noted that there were significant variations between the classes, even though they had very similar preparation, outdoor activities and follow-up. It was decided that although a large amount of data was available, few conclusions could be drawn as the teachers had somehow influenced how classes approached the task. It was therefore decided to revise the research process for 2004 (Orion *et al.*, 1997).

Research method

In 2004 the next cohort of 10–11 years old pupils at the same school took part in the programme of coastal fieldwork, but with 120 children in four classes. The author attended this day as an observer. As in 2003, one day of follow-up activities was also observed in each class. A short time after the fieldwork the headteacher agreed that a research assistant could visit the school to administer the activity to each class without the teachers being present. She gave the same verbal instructions used in 2003 and classes were provided with similar materials for expressing their understanding of coastal processes. They all had the same amount of time to complete the task. Pupils were asked to write their age and gender. The instructions encouraged pupils to use any format to complete the activity: drawing, notes, poems, maps, diagrams and prose were all acceptable. Field notes were taken while the pupils completed the activity.

The research assistant coded pupils' papers so that each class could be identified. Reflections on the data collection process were discussed. Each of the 120 samples of pupil work was then analysed. This was based on the set of activities experienced by each pupil at the coast and observations made during the fieldwork process.

Research findings

It was apparent that the use of a research assistant to collect the data provided much greater consistency across the four classes of their understanding of what they were being asked to do. Many individual approaches were used by the children but the 2004 data enabled comparisons and generalisations to be made from this large data set. Field notes on how individual pupils and groups approached the task provided further insights to aid the analysis of pupils' work. Matthews (1992) talks of children having a 'lens of experience' through which they develop ways of environmental knowing. The teachers provided a range of lenses in the various activities undertaken.

Sea defences

Pupils were asked to study the landscape to identify a variety of methods used to protect the land from erosion. Over 90% of pupils included some reference to this and many drew accurate representations of how each was constructed and what its purpose was. 35% annotated their drawings in some way with comments such as "sea defence helps defend the beach and Skegness" (girl, 11). This is an interesting example as it shows an understanding of how groyne protect the beach and concrete structures protect the land. 10% of pupils also showed they had seen how wood,

natural boulders and concrete were used in different ways as sea defences. Four pupils drew simple plans to show how these features were located at different places on the length of coast they had studied. Four pupils from one class drew plans to show the angles at which waves hit the beach and how longshore drift works. This may well have been discussed by their teacher as the practical work on longshore drift was almost non-existent. In future trips it may be worthwhile to include simple experiments to show children how the movement of water along the coast actually takes place.

50% of pupils recorded in some ways one of the most potentially powerful activities undertaken on the visit. They were put into groups (Dunne and Bennett, 1990) and each one way given an identical small piece of wood. Their task was to design and build a sea defence to stop the in-coming tide from getting hold of their piece of wood. This activity created great excitement and much team co-operation and social learning. It had been planned to time it so that the groups could then observe how the in-coming tide attacked their defence. Pupils used sand, mud, pebbles, drainage channels, seaweed and the slight variations in the topography of the beach to construct their defence. Video data from 2003 includes detailed explanations of their structures and how effective they were against the in-coming tide. The 2003 paper data contains many detailed diagrams and descriptions of this activity because they pupils were able to watch the in-coming tide destroy their structure and compare theirs with other group designs. The data includes many examples of very clear understanding of how different materials and designs withstood the power of the waves. Unfortunately, in 2004 the teachers had mis-read the tide time charts on the web and arrived just as the tide was going out. The 2004 pupils still built their structures, but those 50% pupils who did record the building experience used much simpler sketches and vocabulary to explain the task and why it had been undertaken. By comparing the 2003 data with that from 2004, it appears that pupils who had the vivid experience of watching how the sea destroyed their defence were able to demonstrate more examples of the concepts they now understood.

Transportation of material

One activity required pupils to collect a sample of sea water and seal it in a plastic bottle. The teachers' objective was to show how sea water transports solid material along the coast and how this load is made up of a variety of materials. It was also designed to reinforce the concepts of erosion, transportation and deposition. Three pupils demonstrated some understanding of these concepts through sketches and writing. The predominant misconception by pupils was that the purpose of the activity was that they "collected water to see how the water would settle" (girl, 10). The word 'settle' was used by over 30% of pupils. Apart from one boy who wrote "we learnt about the waves carrying pebbles" there was very little evidence of how this activity helped develop a clear understanding of transportation processes. Back in the classroom pupils were able to see how the load did settle out into layers in their bottles. It is possible that the way in which water handles a variety of particles is too complex a concept for primary age children and that some awareness of water's

ability to hold and move a load is sufficient for that age range. It does, however, raise issues of progress and continuity in fieldwork experiences.

Erosion

In preparatory work, all pupils had discussed coastal erosion, seen a video clip and used the same textbook on the coast: this contained very clear diagrams and explanations. Indeed, the 2003 data provided many examples of how pupils had remembered the diagrams and were able to reproduce them from memory in order to show how cliffs are eroded by the sea. About 20% of the 2004 cohort drew similar diagrams. It would be interesting to ask teachers if they had made less use of the textbook, as the 2003 data gave evidence of how pupils could relate classroom learning to what they saw in the field. This whole area of how different learning resources are linked with the actual fieldwork experience in the mind of children perhaps deserves further research.

The stretch of coast visited by the school does not include cliff features that clearly demonstrate classic features such as caves, stacks etc. That part of the east coast of England is much more an example of soft rocks being eroded and materials moved along the coast. It is therefore interesting that about 20% of pupils did want to include notes and diagrams based on their classroom activities, perhaps indicating some ability to see an overall concept of ‘coasts’ and how they vary around the English coastline.

About 15% of pupils did draw diagrams to show how material was eroded from a coast, whether from hard or soft rocks gradually developed into smaller and smaller particles. Some of these drawings matched the diagrams in the textbook while others were much more individual and creative. In many cases the linked words indicate an understanding of how particles reduce in size. Another activity had been to collect samples of sand and pebbles at different distances from the sea and study them in detail back in school. One pupil explained that before the fieldwork “I didn’t know that the waves come and take all the rocks and stone and turn them into sand” (girl, 11).

Beachcombing

All pupils had the supervised opportunity to collect items found at different places on the beach. It was to “find out what types of objects get left behind by people and the sea” (girl, 11). Her writing and drawing give evidence of how she understands the difference between natural and human items and indeed this was represented by many pupils in a variety of ways. Some were also able to show how the sea deposited different materials depending on where pupils looked. Throughout the fieldwork, very little use was made of map reading or map drawing skills. This activity may have been an effective way of showing how map making could have helped pupils record where they found their collection of objects. Pupils had also been asked to look out for pebbles, shingle, sand and mud as they carried out their activities. This was included to provide a further example of how rocks are eroded and how the sea moves and deposits materials on various parts of the beach: again, some mapping activities may have further reinforced these concepts.

Environmental perception

Palmberg and Pupu (2000) consider how outdoor activities may support the development of environmental responsibility in young people. For the first time in 2004 teachers included an activity where children had time to quietly sit on the beach to look, listen and think. They had prepared for this in literacy lessons and back in school used the experiences of this quiet time to write a poem. Comparing the 2003 and 2004 data, there is a clear trend to more accurate descriptions, wider use of geographical vocabulary and a greater sense of involvement in the fieldwork (Greig, 2000). This is another aspect of the research that could be followed up in more depth. Observation of the fieldwork did not provide evidence of teachers forcing environmental issues on pupils, but one pupil wrote, when describing his drawings of creatures found on the beach “this is a sea creature that have a habbitat on the beach thats why we have to pick up rubbish and look after this butiful place” (boy.10). It may be difficult to measure, but perhaps fieldwork can raise pupils’ awareness of the environment and their own feelings about places.

Implications for teacher training

Analysis of the 2004 data suggests that primary school pupils are aware of some of the varied experiences they have when taking part in geographical fieldwork. A parallel research project (Halocha, 2005) into geography student teachers’ understanding of fieldwork supports these findings in that they report greater awareness of both what and how pupils learn in education outside the classroom. However, few students currently on initial teacher training courses in England have the opportunity to experience, let alone analyse, the teaching and learning that can occur. If time constraints continue on such courses, it may be appropriate for tutors in subjects such as geography, history and science where fieldwork is used, to provide some experience of some generic activities and discussion of research to ensure that future generations of primary school teachers are aware of how fieldwork can help pupils develop both intellectually and socially.

Conclusion

The 120 pieces of pupils’ ideas offer a fascinating insight into both what they may have learned from the visit and how they choose to express this. Although they were given an open-ended task, the research assistant did note that some pupils may have preferred to talk about their understanding of the visit. There is no sense in which this paper suggests that the research method described is a complete and accurate means of evaluating pupils’ understanding of fieldwork activities. Rather, it raises questions about how we can begin to understand how pupils living in the twenty first century who constantly experience versions of the world presented to them via electronic, virtual images, whether they be TV, video, computer games, camera phones or websites, actually perceive and interpret real world fieldwork opportunities provided for them (Matthews, 1992).

Observations in the field and analysis of pupils’ work suggests that pupils may develop more complex map reading and making skills if these can be planned into

the range of practical activities. Many of their diagrams and cross sections drawing show they have the technical skills to achieve this. The field notes made while pupils were expressing their ideas on paper suggest that the type of follow-up activities undertaken after fieldwork may also have an influence on pupil understanding. The children were able to discuss ideas with each other. The research assistant noted that they were asking each other many questions and trying to work out the answers in a social way. Future research may benefit from investigating how helping pupils to continue their geographical enquiries after fieldwork may help them to understand more from their first hand experiences. This might involve teachers moving away from follow-up work which simply exists to presents findings, but rather sees the fieldwork experience as one part of the process of geographical learning. This may have implications for how schools plan fieldwork into their schemes of work, but the spin-offs may result in even deeper understanding of experiences gained out of the classroom.

Overall, the data suggests that pupils do increase their understanding of the world through fieldwork. The phrase ‘what I saw...’ was used by many of the pupils, suggesting that the opportunity to see real world structures and processes is important in developing their geographical understanding.

Geographical fieldwork in England is being challenged by time, curriculum demands, costs, management perception and trade union concerns. As geographers we need to have more evidence to match these challenges. In addition to evidence from pupils, it may be worthwhile to research the perceptions and values of those headteachers and school governors who do believe that fieldwork and outdoor learning is an essential part of primary school education. The headteacher of the school in which the research was based sets very high standards in all aspects of school life. He expects fieldwork to take place in a variety of curriculum subjects. He accepts responsibility for pupils being on a beach during an incoming tide in order to have first hand experience of coastal erosion. The result of this commitment to fieldwork by school management is perhaps best summed up by this piece of writing from a ten year old girl who took part in this rich fieldwork experience “By doing this we have remembered a lot A VERY LOT!!”

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Multimedia learning of geographical subjects

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Abstract

The promotion of 'contact-free learning methods' is a possible response to the Action Plan for the European education initiative 'Learning in the Information Society'. It is connected with the use of Internet based technologies on the one hand and geoinformation technologies on the other hand. This paper presents extracts of the WWW pages devoted to the multimedia learning of Landscape ecology and Regional physical geography of the Czech Republic, including e-learning technologies supported by the Information system of Masaryk University Brno.

Key words: ICT in geographical education, multimedia learning, www presentation

Introduction

Information and Communication Technology (ICT) may be a term that has only become popular in the past few years, but the notion of ICT has a long history within the teaching and learning of geography. The use of ICT as a tool for teachers and learners has never had such prominence and this is something that must be addressed by all phases of education, reaching across formal and informal education. Despite the importance of the technology, there are many issues for all geographers, ranging from access to the technology, to identifying its effective use and application. More importantly it could be claimed that ICT is changing geography continually, be it in the patterns of work that geographers study or the formal understanding of how the subject can and should be taught (Hassell 2000).

ICT in geographical education

Lambert and Balderstone (2000) highlight the belief that ICT has the potential to enhance students' skills of geographical enquiry. To meet this potential often requires two conditions to be met:

1. Geography teachers need to improve their own understanding and competence in the power of information technology to support enquiry methods (such as collecting, recording, analysing and presenting data in a variety of forms – text, maps, tables and diagrams).
2. Students need to develop their ICT skills beyond the basics of data handling (such as an ability to conduct a sound geographical enquiry utilizing information skills such as selection, evaluation, interpretation and presentation of appropriate data).

Computer literacy can be considered as one of the standards of education in the modern society. It enables us to cope with increasing amounts of information as well as to solve even very difficult task with the help of computers. The use of ICT at school is very multiple, computer based learning is increasingly being put into practice. Slavik and Novak (1997) give the following alternatives:

- multimedia programmes
- simulation programmes, modelling
- testing programmes
- learning programmes
- information resources
- videoconferences
- distant forms of learning
- virtual reality

As stated in Hassell (2000), the learning process can be improved in a number of ways when using ICT:

- ICT can provide a safe and non-threatening environment for learning with the flexibility to meet individual needs and abilities of each student;
- ICT gives students immediate access to richer source materials;
- difficult ideas are made more understandable when information technology makes them visible;
- ICT can affect the power to try out different ideas and take risks, encouraging analytical and divergent thinking.

According to Manak and Svec (2003) a computer is used mostly to present learning programmes when a student works on his own or under a teacher’s supervision. This situation is also known from other learning models (Figure 1). Teachers help a student gradually to attain student’s full independence. This is, for that matter, a final aim

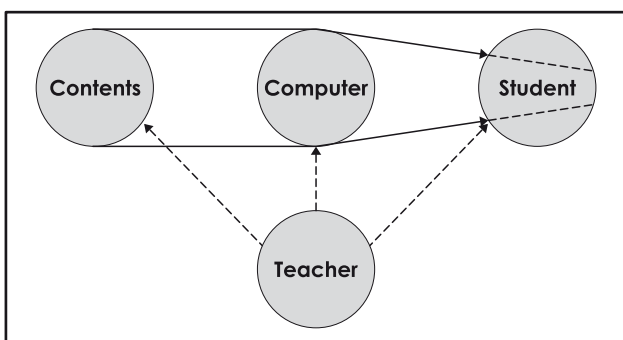


Figure 1. Computer-based learning

of the entire education – like the training of new drivers. This is a computer that individualizes and accelerates the process of student’s growing independence and adopts it to the current condition of every single student. On top of that, it is necessary to learn to recognize relevant information, to select the data that are both functional and easy to manage.

A teacher has a variety of software products at his/her disposal, e.g. programmes for practising, simulation programmes and games, electronic textbooks, encyclopaedia, atlases, various expert systems and learning programmes on the basis of artificial intelligence, geographical information systems, etc. The model of a traditional way of learning has been changing with the coming of modern educational technologies. According to Manak (1999) there appear new roles of a teacher, these are:

- an organizer and manager of a learning process
- a student's partner, assistant and adviser
- an educational programmer
- a technologist of educational processes
- a researcher in teaching and learning methods

The learning society requires considerable knowledge to understand more and more complicated and interconnected world. It also is a precondition of economic success in a global competitive society. The model of an active individual that is able to use acquired knowledge and skills and make adequate decisions in personal and professional situations, as well as to receive incentives from around, to anticipate new complex situations, to search for variant solutions and analyse their consequences is considered to be a conceptual starting point. The active individual person is creative and studies for all his / her life. A school provides him / her with the tools, necessary methods and learning mechanisms. He / she disposes of a complex of universally used skills, so-called key competencies.

The European Action Plans – Learning in the Information Society and eEurope 2005 are, apart from other things, aimed at the support of educational innovations by means of multinational network and at the studies based on multimedia to guarantee effective integration of ICT to education.

The principles, strategies and actual steps characteristic of the development of modern educational systems of some EU countries have entered Czech geographical education. Educational projects established at the Institute of Geography at Masaryk University Brno use the alternatives of geoinformation technologies based on the World Wide Web to create various learning materials, for example that of Landscape Ecology (Fig. 2) and the Physical Geography of the Czech Republic (Herber 2004). Great emphasis is put on the presentation of the dynamics of various matters for which the series of satellite images are used. The data for each issue are generally structured as follows:

- Introduction to the issue
- Present state of the issue knowledge
- Data resources

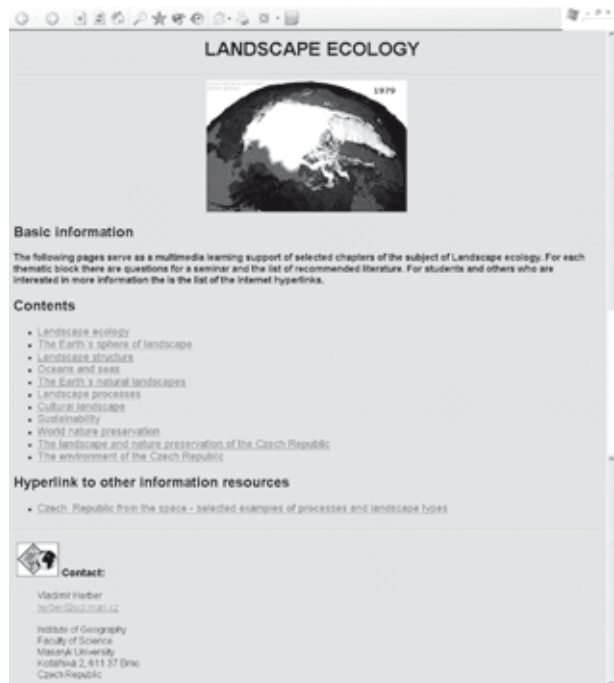


Figure 2. The main page of Landscape Ecology learning resource

- Analysis of the issue – a landscape component approach
- Synthesis and evaluation of the existing or traditional media presentation of the issue
- Evaluation of understanding of the studied issue in the form of questions and tests.

Conclusion

Electronic support of teaching and learning processes is necessary in the current conditions of increasing number of Geography students in the Bachelor's degree programmes at the Faculty of Science of Masaryk University Brno. It is the indirect result of the affiliation of the Czech Republic to the Bologna Process. As far as the state of the ICT equipment and the level of the ICT skills of the academic staff are concerned, Masaryk University has got all the pre-requisites for the use of e-learning methods. The aim of Masaryk University for the forthcoming period is the shift to the stage in which e-learning tools can be easily used by every teacher. The electronic study resources which are available to students by means of the Information System of Masaryk University (<http://is.muni.cz>) are also used within lifelong education, for example by the teacher-trainees of the Summer Geographical School.

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Geographical fieldwork in forests

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Abstract

General and regional geographic knowledge allows us to understand better many spatial questions related to the forest, its position, extension, composition, differentiation, margins, and especially the functions, etc. The forest serves as an indicator of many phenomena hidden to common eyes. Schools researching information, about forests helps pupils to understand them. Fieldwork in forest areas and the consequent processing of data about the forest improves respect for forests among pupils, and contributes to the environmental care and protection as well.

Key words: forest, research, fieldwork, field centre

Introduction

Geographical knowledge allows us to better understand many spatial questions. The right studies support not only a better orientation of the land use, understanding the internal and external relationships, but also an the explanation of local and regional situation. The forest serves as an indicator of many phenomena hidden to common eyes, so studying it and understanding the processes involved is very important.

The Czech Republic is a landlocked country located in Central Europe. Woodlands cover approximately 33,4% of Czech territory. The territorial distribution of forests reflects the spatial structure of the country and the mountains specifically causing the right sort of climatic and soil conditions for forest growth. Its area of forestry has grown since the 16th and 17th century, when it only covered about 5% of the surface. The largest forest areas cover the border mountain ranges of Bohemia and Moravia as this land has colder climate, steeper slopes and poorer soils. The larger inland forest areas are located on isolated mountains. Other large forest areas cover steep and deep river valley systems and poor sandy soils on sandstones and also on wind blown and fluvial sands. The rest of the country is covered with a pattern of smaller forest patches, pasture and field areas. The proportion of woodland generally increases from lowlands into mountains. As might be expected, forests cover less valuable soils or less useable sites unless the forest serves special purposes.

Schoolteachers thus need to explain to pupils that the woodland is not distributed randomly in the landscape and its position in any region also reflects regularities given both by the needs of the human community and also by natural conditions. The forest is thus a good indicator of human and natural factors.

Fieldwork in forest areas

In the Czech Republic school excursions are commonly heading into forested areas. The excursion field work program routinely deals with forest canopy cognition, usually its living segment. Pupils are being taught to recognise individual tree species, parts of tree bodies, their flowers and fruits. The pupils are learning about the relationships of forests and trees with animals. Pupils learn to identify individual forest herbs (Barányová, Novák, 2004). The specialized ecological education makes pupils familiar with forest ecosystems as a whole, their structures and dynamics, relationships between their compounds, their roles and functions. The spatial aspects of the forest – its territorial differentiation – remains only marginal. Geography studies presents an opportunity to explore and explain such spatial aspects of nature and in this way will help its understanding.

Geographer's view on the forest

Woodland plays many important roles in the European cultural landscape. Wood production was the original forest function for humans. The present understanding of forest functions is quite different because of deep changes in the production technologies in industry, housing, construction, heating, etc. as well as better knowledge about other important abilities of woodland. Other forest functions include:

- protecting the soil against soil erosion,
- climatic influences like air humidification, cooling and wind speed reduction,
- hygienic functions such as dust absorption, noise reduction
- aesthetic aspects like the psychological role of green colour and diverse horizon
- recreational and health features where the input of chemicals has a positive effect
- ecological aspects where biodiversity protection of species and societies
- water protection supporting water accumulation and filtration
- educational through teaching in and about forests and
- scientific issues with a study of various aspects of forest ecosystems.

Many of these functions are hidden not only from the broad public but also to education and research specialists as well. Developing opportunities that will increase the awareness of the importance of and opportunities to understand forested area is thus very important.

Role of an integrated terrain education centre

The problem of forest teaching lies in the question of how to explain the importance and significance of forests to pupils in primary schools. Field and class education offers opportunities to involve pupils in the subject. If the objective is to encourage active pupil participation it is important to apply attractive educational methods in a series of stages of forest study. These stages can be represented by the collection of data about forest functions (in field, literature, maps, aerial and satellite imagery) and data processing and presentation of results to other schoolmates. The most attractive teaching approaches can best be achieved in the field and in computer-assisted classes. The establishment of an “integrated terrain education centre“ can be used successfully for both these purposes.

One of these field study laboratories belongs to the Department of Geography, Faculty of Education, Masaryk University in Brno. It is located nearby the Jedovnice village in the beautiful landscape on the border of Moravian Karst and Dražanská vrchovina Highland about 35 km to the North from the city Brno centre.

The purpose of the integrated terrain education centre is to integrate various field study practices carried out by individual science branches. The environmental education and professional preparation of future teachers (presently students of the Faculty of Education) were the linking forces between natural science (namely geography, biology and chemistry) and humanistic science (represented by citizen education) (Hofmann, Rychnovský and Plucková, 2003). The centre thus serves as a terrain school for one-week pupil field courses for primary schools in Czech Republic, and partially also for the Slovak Republic during the summer season (May, June, September).

Various progressive teaching methods are being applied here groupwork, project and problem solving education. The instruction emphasises the co-operation of all participants (teachers, students and pupils) to solve practical tasks. The inter-subject links play a very important role in improving the importance of teacher co-operation and the application of team-based education. The outdoor education is comparable to the types of “fieldwork“ which are commonly undertaken in English/American schools.

Fieldwork is understood as a complex educational form consisting of progressive teaching methods, such as experiments, centre research, short-term and long-term observations, project solving, co-operative methods, experiential methods, etc.. It consists of various organisational education forms (including jaunts, field experiments, excursions, thematic school visits, expeditions, etc.. The focus of this kind of education is based on outdoor activities – outside the school area and out-of doors. These activities support the development of necessary lifelong skills of pupils.

The integrated terrain education centre has an accommodation facility, research laboratory, library and depot. The classroom and laboratory do not simulate the normal school environment. The distribution of mobile furniture and other equipment depends on the requirements of the visiting school. There are microscopes, stereo lenses, chemical laboratory, GPS instruments, TV sets, video recorders, thematic maps, etc. at their disposal here.

Geographical fieldwork in the forest about the forest

There is a varied local geographical environment around the integrated terrain education centre in Jedovnice (village, pastures and meadows, fish ponds, forests in hilly karstic and non karstic areas with an elevation between 450 and 550 m a.s.l.). This makes the study of various aspects of the territorial distribution and functionality of the forest area possible (Figure 1).

The fieldwork for pupils (grade 5 of the primary school and above) usually consists of (Kolejka, 2005):

1. *Forest functionality mapping* (topographic map at the scale of 1:10000 is available, orthophotomap at same scale as well, community master plan, black-and-white base

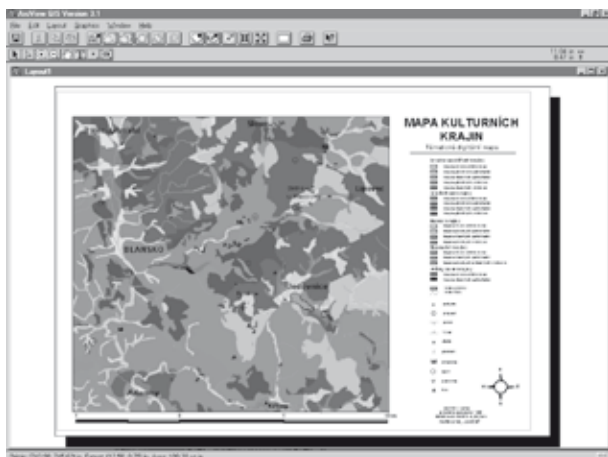


Figure 1. Digital map of present landscape compiled by geography students and pupils

maps for colour childrens' mapping of forests with various features). The children can be inspired with the above mentioned overview of forest functions. They can identify forest areas with specific functions in maps, in the field and/or in aerial imagery by themselves (such as wood productional forest – coniferous woodland without any other function, soil protectional forest – on steep slopes, water protectional forest – along the banks of water bodies, streams and springs, protected forest – in preserved areas of all classes, ecologically important

forest – predominantly deciduous forest with nature near canopy species composition visible in orthophoto), recreational forest – with dense network of walking routes, pick-nick areas, small architecture, watch points, hienical forest – bordering production facilities and busy roads, educational forest – equipped with learning pathes and tables, aesthetic forest – hidening various „cicatrices“ in the landscape (fresh minning areas) or improving views on important landmarks (castles, mansions, etc.), climatical forest – protecting housing areas and dividing large agricultural segments of open landscape. This way, children can realize that the most of forest areas are multifunctional (Figure 2).

2. Consequent *discussion about fitness of territorial distribution of forests* with identified functions. Children can assess if the present functions of multifunctional forest areas are complementary or competitive. They can identify priority functions governing individual forest areas either excluding other functions or supporting them. Such supervised discussion teaches children to understand the forest in functional and spatial relationships, in any case from the viewpoint forest utility for humans. The respect to the forest can be being developed this way better than by demonstration its features.
3. *Jaunt into functional forest samples* is used to demonstrate the best behavioural practices. This way, children can understand what type of behavior is harmful to the forest and its functioning, and which are not.
4. *A team competition* can be arranged based on different types of forest activity in diverse areas. These can include searches, innumerical and/or word games.

Potential field work teachers in the forest

Trainee geography teachers and those of biology or ecology can gain valuable pedagogical experience by working in the field centre. They need to be supervised by experienced expert teachers and be aware of the safety and other issues associated with outdoor education. It is essential for them to prepae and undertake “forest

learning“, to develop and then introduce essential teaching materials, to raise issues with qualified teaching staff and experience and learn key principles of fieldwork organisation. Using the laboratory processing equipment is another positive aspect, this includes personal computers with GIS software. It is evident that GIS technology represents a very effective teaching tool, as forest field work linked with GIS is a very attractive alliance opening new horizons to the geography teaching (Mahel and Svatoňová, 2003).

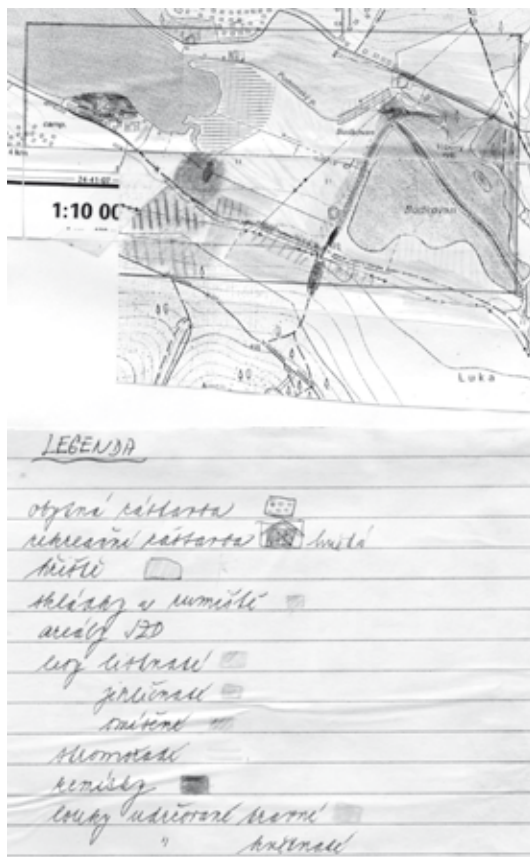


Figure 2. Example of results of the forest mapping done by field work

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A pupils' approach to a judicial conflict between rivers and humans

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Abstract

This paper presents the idea, the steps, the implementation and the results of a primary school project. The project was based on the personification of a river which complained to the humans about the way they treated its water and basin and finally had to prosecute the humans in court. Because of the seriousness of the charges the court had consisted of a “public prosecutor” (sixth form pupils of the 1st pilot primary school) a “counsel for the defence” (sixth form pupils of the 2nd pilot primary school) and the “jury” (sixth form pupils of the 3rd pilot primary school). Then, the pupils were asked to gather evidence from books, newspapers and the Internet to support the rivers (pupils from the first primary school) and humans (pupils from the second primary school). The evidence was based on environmental issues, recreation, emergency (like fire), agricultural needs etc. The trial lasted three hours. All pupils followed the rules like being in a real court, providing evidence for the support of their “client” (the river or the humans) and the “jury” were taking notes on the evidence. Finally, the “jury” announced their verdict and the “judge” sentenced the humans.

The project and the followed procedure showed that the pupils respond better whenever the teacher gives them the chance to get an active role and simulate real life while learning. Many pupils acted like real lawyers and searched intensively for information in order to support their ideas.

Key words: environmental geography, trial, rivers, humans, active learning

Introduction

During the school year 2001-2002 a pilot project named “supple zone of multi-thematic actions”, was applied in Greek primary schools (Greek Official Gazette 1366, 2001). This project was based on creating a free zone of school subjects (2–4 hours a week), where teachers and students were able to deal with various subjects of their own interest. One of the proposed subjects was environmental education (EE) through a student’s social and physical environment and also their contact with the local environment. A very important element of the “supple zone” project was that teachers were at last free to apply new teaching methods instead of concentrating on the old traditional ones.

The next step that followed towards the new perspective on the content of school subjects, was the so called Cross Curriculum Program (Greek Official Gazette 1375, 2001) which became law in early 2002 (without being clear when its application will

begin). It is referred to the inter-disciplinary approach of all cognitive subjects taught at school. This, along with the supple zone, gave a perfect opportunity to connect environmental education to geography.

According to the above mentioned new curriculum, the aim of environmental education is “To make students... be sensitized about the problems arising from bad management of the environment. In addition, through EE students... will be active members in decision taking and materialization process...”

Our project was based on the above aims. Our intention was to make the pupils search for environmental impacts taking into consideration the fact that geography contributes greatly in understanding 1) the degree of the impact and 2) the reasons of being disastrous, in some cases.

Methodology

In order to do so we had to “invent” a story which could introduce the pupils in real life and give them an active role. The idea was to make the pupils work in small teams which were parts of a large team (the whole class), make them think about rivers and humans and their interconnection and discuss and support their ventures with data in front of an audience. So, the whole idea was based on a typical debate between teams.

The “story”

The “story” started in March 2002, when the rivers “sued” the humans for inappropriate and impetuous use of their water and ask for justice. The “judge” (who may be a teacher) asked grade six pupils of the 1st pilot primary school of the School of Education to be the “public prosecutor”, the sixth form pupils of the 2nd pilot primary school of the School of Education to be the “counsel for the defence” and, because of the seriousness of the accusation, the sixth form pupils of the 3rd pilot primary school of the School of Education to be the “jury”. So, this project involved the pupils of three sixth form classes of three primary schools.

The “public prosecutor”, the “counsel for the defence” and the “jury” had their advisors, student teachers of the department of Primary Education, Aristotle University of Thessaloniki. The venue of the trial was the main auditorium of the department of Primary Education, Aristotle University of Thessaloniki, Greece and the date of the trial was fixed in June 7, 2002.

The gathering of evidence

Each party was organized into five teams and each team was responsible for the gathering of evidence on a specific topic for the support of their “client” (table 1). Thus, 10 teams of pupils were formed which were supervised by five groups of student teachers. Each student teacher group was responsible for one team from each party because the students wanted to participate in both. That was done under the condition that they wouldn’t reveal any of the evidence gathered by each team of pupils against the others.

The teams had three months to gather and discuss with their supervisors all the evidence they needed. They met once a week for a couple of hours maximum. During the meetings the student teachers acted as advisors. They helped the pupils get the information they needed from geography magazines, newspapers, books and the Internet. Whenever they realized that the evidence was not sufficient or appropriate they explained to the pupils the problems that may arise and encouraged them to look for new and stronger arguments.

The pupils of grade six of the 3rd pilot primary school, acting as the “jury”, were asked by their teacher to do a “preliminary investigation” on the relationship between humans and rivers, so they would be prepared to listen to the evidence of both parties. In fact, it would have been fairer if the “jury” had known nothing about the case but the pupils wanted to be more active and do something for the project.

Table 1. The structure of the trial

Public Prosecutor		Student teachers	Counsel for the Defense	
	Topics covered by the pupils			Topics covered by the pupils
1 st Pilot School	<ul style="list-style-type: none"> • the destruction of the natural river bed and the discontinuity of the channel • the pollution and contamination of the river • the destruction of fauna and flora • the reduction of water discharge • the reduction of delta formation 	1 st team	<ul style="list-style-type: none"> • recreation (sailing, fishing etc.) 	2 nd Pilot School
		2 nd team	<ul style="list-style-type: none"> • transportation of goods and passengers 	
		3 rd team	<ul style="list-style-type: none"> • electrical power production, dams 	
		4 th team	<ul style="list-style-type: none"> • irrigation, water supply 	
		5 th team	<ul style="list-style-type: none"> • public works against flooding 	
The Jury – 3 rd Pilot school				
The Judge – a teacher from any of the schools (in this case the writer of the article)				

The trial

The date of the trial was fixed in June 7, 2002 at 08:30 a.m. The venue was the main auditorium of the department of Primary Education, Aristotle University of Thessaloniki, Greece. The writer of this article was appointed to be the judge, given that the teachers of the three schools were already engaged in the procedure and they had also asked for it. Each party was positioned at a different place; the public prosecutor to the left of the bench, the counsel for the defense to the right of the bench and the jury at the right of the bench, at the side of the parties, facing the two parties and the judge. The public – the rest of the pupils of the three schools and their parents – were sited behind the two parties.

The trial began with the announcement of the accusation from the judge and after that the public prosecutor asked to support the evidence. Each team revealed their evidence using various ways. They gave speeches, recited poems, used posters, displayed photographs and diagrams, they even performed a drama to play that they wrote for the occasion. Both parties had many objections against each other, some

overruled by the judge and some sustained. The trial ended almost three hours after its commencement.

The foreman of the jury announced that the jury found the humans guilty on all charges and the judge sentenced them accordingly.

Conclusions

If we divide this project in two parts, one being the pre-trial part and the second the trial itself then, we can distinguish the advantages and disadvantages that derive from the theme (pre-trial part) and the procedure (trial).

The pre-trial part: The pre-trial part was a very productive period for the pupils. A two-way relationship was established between the teacher and the pupils. They learned how to use the available sources, extract the appropriate information and even how to present them to an audience in a more attractive way. They learned how to work in teams and what were the benefits from working as a member of a team. They found out that they can acquire more knowledge when working as a team, learning from what the rest of the members have found. So all the members think about and discuss everyone's findings.

The trial part: The pupils respond better whenever the teacher gives them the chance to have an active role and simulate real life while learning. Many pupils acted like real lawyers and searched intensively for information in order to support their ideas. The pupils learned how to debate and to respect the opinion of the others even if they don't agree. That means they learned to listen to the arguments of the opposite side, and find evidence to invert this. They learnt that they have to filter each piece of information they read or hear before they form their own opinion or take a decision.

Disadvantages: The trial lasted too long. That was due to the many topics and teams that were involved (ten topics and ten teams). Each team wanted to present its evidence, which was very reasonable. The schedule of a project such as this should foresee this problem and put from the beginning time restrictions on the teams. The teams and the topics could be fewer, and they could be asked to focus on their evidence instead of making long introductions. The pupils didn't make a summary of what they read, they copied whole pages from books and read them in the trial. This, combined with no time restrictions, made the trial last too long.

The student teachers: The student teachers involved in the project found the procedure very interesting, innovative and productive. The pupils, in their effort to support their findings, came closer to the teacher. The teacher co-operated with each of the students and had the opportunity to realize which pupil is interested in what and how the pupil works in order to achieve his/her objectives.

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Observation and presentation of phenomena in Geography Education

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Abstract

Contemporary geography is treated as a science studying and explaining the causes and effects of the natural and socio-economic diversification of geographical space. Understood in this way as a subject taught at school irrespective of the education level, including academic training, it offers great cognitive, practical and instructional insights. The teaching of geography should help the student to seek an answer to the question of the meaning or cause of existence of individual geographical objects and phenomena and their role in the environment, as well as their rational use. Of great significance in the cognitive process is the ability to make keen observations. Geographical education is thus one of the pillars of the development of a knowledge-based economy.

Apart from the choice of the contents of geographical instruction, the role of this subject in the school structure, and its importance in the education of modern man, reflection is also due to the mode of observation and presentation of geographical knowledge. The way in which the teacher passes on information, tries to make the student interested in the geographical environment and moulds his imagination, has a decisive effect not only on his learning progress, but also on the perception of the subject itself (Piotrowska, 2003). In many works the didactic effort of the teacher is treated as a teaching art. Hence, it seems justified to approach the teacher's demonstration, discussion or explanation of geographical processes and objects as another art – that of presentation. Even more so as presentation is considered today to be a skill that is a fundamental part of one's professional competence and a condition for one's personal development (Łasiński, 2000).

Key words: geography, presentation, observation, teaching, conditions of effective presentation

Presentation

Presentation in the teaching and communication process is a planned and systematic method of acting upon a defined group of students, during which it is crucial to inform, convince and motivate listeners (Łasiński, 2000). Apprehension about being evaluated combined with satisfaction from positive reception is inherent to any presentation (Pijarowska and Seweryńska, 2002). This is also easily observed in teacher's didactic work, in which emotional input significantly influences students' perception of geographical data. In terms of schoolwork, presentation is continuously present in every lesson while discussing various geographical features, phenomena, proc-

esses or their reciprocal relationships. The proper method of presentation determines how successfully the didactic aims are implemented and influences the efficiency of teaching.

Preparation for presentation includes a thorough analysis of its aim, method and the recipients involved. The most important element of each presentation is to determine its objective. Thus presentation is a task-oriented activity and not spontaneous and unprepared (Łasiński, 2000). Good reception is dependent upon the audience. Consequently, it is the student who decides in what way geographical input is taken in, understood and memorized.

Many authors (Jay and Jay, 2000; Łasiński, 2000; Pijarowska and Seweryńska, 2002) agree that the following factors influence good reception of presentation:

- Clear structure of presentation
- Contents as well as expression of the topic
- Body language, i.e. author's image, body posture and eye contact
- Method of presenting contents using visuals or creating a whole set, if necessary.

Every presentation, regardless of its subject matter, consists of the following elements which must be clearly visible to recipients: introduction (topic presentation, engaging listeners' interest and preparing them for reception), development (subject discussion, presentation of main points, conclusions and acknowledgment of attention). It is the presenter who decides when to move on to the next part of the presentation and how to end it. One of the basics of presentation is confidence resulting from profound knowledge of the subject and realistic self-esteem (Pijarowska and Seweryńska, 2002). As for timing of individual parts of presentations, the introduction takes on average 15% of time allotted, development about 75% and ending about 10%. The basic elements of presentation to which particular attention should be given are listed below (Pijarowska and Seweryńska, 2002).

Introduction

- first impression determines the success of the whole undertaking
- non-verbal communication occurs throughout the entire presentation
- eye contact with listeners as well as awareness of facial expression and gestures
- introduction should be a conscious presentation
- a plan – script – is essential.

Development

- excellent knowledge of the subject as well as logical sequence and clarity of the message
- visuals that make the subject easier to comprehend and also add interest
- managing symptoms of nervousness
- maintaining contact with listeners
- keeping track of time
- approaching the finishing stages of development should create an impression of completeness and clarity of the message.

Ending

This part aims at formulating the main theme running through entire presentation and summarising its contents in demonstrated theses as well as finishing it off with adequate delivery.

Efficacy and attractiveness of the message

Effective presentation aims at conscious implementation of an anticipated goal. Its effectiveness is influenced by elements such as accumulated knowledge, contents, skills, strategy and methods of presentation (Pijarowska and Seweryńska, 2002).

Knowledge

While selecting the subject it is essential to analyse the aim of presentation. In order to accumulate and then make use of knowledge a lot of features, facts or phenomena must be remembered and logically associated. The familiarity with memorizing processes on the side of both teacher and student may facilitate learning. It is important to realize that memorizing is made much easier by: comprehension of all elements of input, frequent revising of contents and the ability to apply the contents to problem solving and putting them to practical use (this results from basic principles of the teaching process – principle of linking theory with practice and principle of durability of results, Okoń, 1987).

Contents of presentation

The very method of formulating the subject suggests the form of its presentation. Therefore, a topic selection determines the concept of its presentation. While selecting the subject matter to be presented it is crucial to understand well the selected topic (the main thought), to balance all the elements and to construct a feasible plan of presentation.

Skills

They are understood as aptitude and readiness to perform in public. Not everyone has the benefit of this skill. However, it may be developed in the course of preparing and giving a lot of presentations if some prerequisites are present.

Strategy

It is a plan which takes into account contents, structure, form and listeners. A logical, well ordered plan facilitates presentation.

Presentation methods

The message is easier to understand, memorize and watch if didactic tools, or media, are used: pictures, slides, transparencies, posters, models, films, computer and multi-media programs as well as Internet resources (Strykowski *et. al.* 2003). They should all relevantly illustrate the presentation, without distracting viewers. Their importance is particularly pronounced in teaching geography, which was pointed out by the great Czech pedagogue active in Poland Jan Amos Komeński, (1592–1670) who

formulated one of key principles in teaching geography – the principle of visualization (Okoń, 1987). As much as 83% of all information is assimilated through the sense of sight (Łasiński, 2000). Therefore visualization should underlie all presentation. According to Jay (2000) an image acts better than words since it is faster, saves time, is more efficient and easier to memorize at the same time enabling indirect observation of the questions discussed.

Verbal and non-verbal communication

Nowadays a lot of attention is given to communication. Communications, or people talking to each other, is made up of verbal and non-verbal messages. A school is a place particularly suited for this purpose. Both teachers and students send various messages. Strykowski *et. al.* (2003) suggest extending teacher's competencies by communication, media and technology competencies. Ignorance and the inability to interpret messages may create a number of difficult didactic situations.

The first of these messages discussed, verbal, is of a linguistic variety. The language register may be literary, colloquial or scientific. Besides language other crucial elements include associations, choice of words and correct syntax (Łasiński, 2000). Depending on educational level and the syllabus the teacher conveys information of geographical environment adjusting it to the perception potential of students. Łasiński (2000) believes that the method of lecturing influences the process of communication up to 30%, its elements being intonation, force and speed of speech as well as pauses between sentences, the pitch of voice, articulation and any dialects, if applicable. Many different methods may be used in order to emphasize the character of presentation: strengthening or weakening the volume of voice, suspending, accelerating or slowing down the speed of reading, modulating intonation or lengthening words. The speech must be loud and clear, intonation should be melodious, the tempo and volume of voice diversified; mumbling, shortening syllables or speaking through the nose are not recommended; also vocabulary should be varied. Presentation becomes then more expressive both to listeners and the speaker.

Pauses play an interesting and important role in presentations (Detz, 2004; Heigl, 2004). Moments of silence are recommended in the course of the lecture to make it possible for listeners to absorb contents and, at the same time, to observe the visuals shown. It is the pauses that make the presentation suggestive and vivid. On the other hand, a non-verbal message is an integral process which, according to Pease (2004) and Łasiński (2000), involves body language, which consists of:

- facial expression
- gestures
- body posture
- eye contact
- non-verbal aspect of speech; tone of voice, rhythm, stress, speed of speech
- involuntary physiological reactions
- physical appearance
- personal distance and
- space (physical surroundings)

Studies have shown that the aforementioned type of communication clearly prevails in interpersonal communication. Pease (2004) maintains that verbal component of speech makes up to 35% of communication whereas the rest occurs at a non-verbal level; Łasiński (2000) suggests it is about 50%. From a teacher's perspective the ability to read and interpret non-verbal messages coming from students, sometimes termed intuition or perception, seems to be exceptionally important (Wołowik, 1998). Ignoring signals coming from students during a lesson may result in a situation in which the planned method of presentation does not adapt and thus the educational effect is impaired.

In the course of presentation another factor, mentioned earlier, appears i.e. distance, defined as personal distance from other people, something that Pease (2002) calls 'territory' and the 'speaker's safety zone', whereas Hall (after Pease, 2004) names it 'speaker's own space'. In the course of studies on non-verbal expression (called *proxemics* after Hall) considerable significance was given to distances people who engage in interaction tend to keep between them as well as their reciprocal arrangement. Pease (2004) lists four types of spacing zones: private (15–46 cm), personal (46–120 cm), social (120–360 cm) and public (more than 360 cm). Inevitably, each individual zone may determine the method of presentation as well as its adequate reception as they define the distance to listeners- students.

Perception of presentation – natural barriers

In the course of every presentation there appear to be many disturbances that may make it difficult or even impossible to communicate. Such situations are especially troubling for beginners, young inexperienced teachers. Łasiński (2000) points out to the following barriers of efficient communication that may have an impact on perception of presentation (Table 1)

Table 1. Barriers to effective communication (Łasiński (2000), modified)

Semantic	Psychological	Physical and external
<ul style="list-style-type: none"> • Lack of professional preparation • Distorted information • Multitude of information • Incomprehensible subject matter • Incomprehensible terminology or language • Speaker's speech defect 	<ul style="list-style-type: none"> • Negative attitude • Shyness • Lack of interest in the subject • Excessive emotional involvement • Disregard for listeners • Dogmatic thinking • Lack of concentration • Monotonous speech • Inability to focus on listening • Tiredness 	<ul style="list-style-type: none"> • Noise • Whispering • Temperature • Venue • Time of day • Power cut or computer break-down • Too many listeners • Inadequate room arrangement • Time pressure

Dress rehearsal

How should a presentation be prepared so that set goals are achieved? The only solution seems to undertake perfect preparation both of its subject matter and of its methodological aspects as well as having a 'dress rehearsal' to test full readiness for delivery. Such a rehearsal allows for final corrections and helps boost confidence in its success. It is also an opportunity to assess the teacher's skills and the extent of preparation.

The following factors are helpful in rehearsing a presentation (Pijarowska and Seweryńska, 2002):

- reading the entire presentation aloud
- practicing in front of the mirror using notes; and
- speaking in a normal and/or louder voice (voice experiments)

An element which is extremely important in achieving success both in rehearsal and in real-life presentation is success visualization, or projecting an image of a successful presentation. A good presentation is easy to understand, visual, interesting, vivid and prepared with competence (Łasiński, 2000), and, if prepared well, it may considerably enrich educational system and geography teaching.

In schools in the 21st century, in the time of unprecedented development of information technologies, GIS and the Internet, enormous importance is given to presentation skills of geography teachers regardless of the elected methods and techniques of geography instruction.

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Constructing the world through the curriculum

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Abstract

Concerns have been expressed about misleading impressions of the world conveyed by various map projections. In this paper I argue that the world studied in the geography classroom by 11–14 year olds in England is equally distorted by the curriculum itself. Although the UK Geography National Curriculum provides a framework for teaching, choices about which places are studied are made by teachers. An investigation into which places were studied and why was carried out through a questionnaire survey and through interviews in case study schools. The findings revealed significant patterns of attention and neglect both at a world scale and at a European scale. A range of factors affected curriculum choices. The study raised questions about how the curriculum is constructed, about the way places were represented and studied and about the use of case studies.

Key words: curriculum, maps

Introduction

Concerns have been expressed about the distorting influence of the use of particular map projections in schools (Wright, 2003). The world is represented to pupils, however, not only through maps but also through what is studied in school. The focus of this paper is on the shape of the world constructed through the geography curriculum at Key Stage 3 (11–14 year olds) in England, the last stage in which geography is compulsory. It reports on and discusses a small research study which investigated which places were studied and why.

Contexts

Geography has always been concerned with place but as the academic subject has changed, so has the world represented through its discourses. Regional geography constructed a comprehensive world, classified into regions and described in detail. Explanations tended to be deterministic. The quantitative revolution, created a different, more uniform world in which the search for general laws to explain processes was more important than the particularities of places. Humanistic geography re-emphasised the importance of people and place but its focus on meanings of particular places created a fragmented world of experience. Radical geography, with its concern for issues and the political and social processes underpinning them, produced a new world in which global issues, patterns and inter-relationships became more significant. The cultural turn of the 1990s produced not simply a different map

of the world, but multiple maps of meaning (Jackson, 1989). Post-modern approaches have emphasised different geographies, different viewpoints, and different representations of the world and how place identity is constructed through relationships with other places (Massey, 2002).

Just as the discourses of academic geography change the map of the studied world, so do the discourses of the educational world. Before the introduction of the Geography National Curriculum (GNC) in 1991 the dominant approach to syllabus construction was through thematic studies, influenced variably by the quantitative revolution and by radical geography's concerns with issues. A minority of schools still influenced by a regional approach studied the world through a curriculum structured by continents and countries (Roberts, 1998). As teachers could choose what they taught, the curriculum worlds constructed through these frameworks varied.

Concern about the under-emphasis of place studies in schools (Walford 2000, Rawling, 2001) influenced the first GNC (DES, 1991) with the result that it included, in addition to the study of themes, the compulsory study of specified places: the home region; one of France, Germany, Italy and Spain; one of twelve named Less Economically Developed Countries (LEDCs), and one of USA, Japan and USSR. The emphasis was on descriptive studies. The two revisions of the GNC in 1995 (DFE, 1995) and 2000 (DfEE, 1999) still included the study of place, but countries were no longer specified and only two countries had to be studied. Instead of emphasis on description there was emphasis on studying at a range of scales within regional and global contexts and independence (DFE, 1995) and on the distinctive character of places, the causes and consequences of regional differences, change and issues of topical significance (DfEE, 1999).

Methodology

I used both quantitative and qualitative methods to investigate the shape of the world created by the choice of countries and case studies. I sent a questionnaire survey to 122 schools in an attempt to produce some generalisations about which countries were studied and why. The response rate was 69%. I used qualitative methods to examine the particular worlds created in individual schools through choice of countries and case studies and to explore the thinking behind the choices made. I interviewed heads of geography in six schools, focusing on the whole curriculum in three schools and on Europe in three different schools.

Survey findings

The current GNC in the UK requires pupils to study any 'two countries in significantly different states of economic development'. Four countries dominated the choices. Italy and Japan dominated the MEDCs chosen, with 72% of schools choosing one or both of these countries. 75% of schools chose either Brazil or Kenya.

An open question on why particular countries were studied produced a variety of responses. A large majority (90%) explained their choices in terms of resources, some stating simply that they were 'in the texts we purchased', others indicating a more

active engagement in curriculum development, e.g. ‘over the last 4/5 years we have built up resources and staff knowledge of Nigeria. We had some useful videos and an Oxfam resources pack’. 40% justified their choices in terms of geographical content with a minority referring specifically to the GNC place requirements e.g. ‘Italy is good for looking at regional disparities’. Most justified the choices in terms of opportunities to use the countries as case studies for themes. A minority justified choices in terms of the broader curriculum, mentioning links with modern languages, citizenship, and history e.g. ‘India is studied alongside the study of Mogul Empire’.

Teachers’ and pupils’ experiences and preferences were important for some: ‘We have a teacher who lived in Kenya’; ‘Some students of Italian descent’; ‘Brazil: to enthuse and motivate boys (football link)’, and India: ‘pupils bring some knowledge and images to discuss’. A minority had chosen the UK as the country for study because they thought pupils should study their own country. Two responses justified their choices in terms of intrinsic importance of the country: ‘USA is a large important country and frequently in the news’ and ‘India is important in itself’.

Interview findings

The general interviews in Schools A, B and C revealed that the flexibility of the GNC allowed schools to construct completely different curriculum worlds consisting of their chosen countries and case studies.

School A chose to study Japan and Tanzania, the latter because of an exchange link of pupils and staff with a subsistence village in Zanzibar. A discussion of places used for case studies revealed significant areas of neglect. No case studies were selected from North America, Europe or the Middle East or from South America apart from the tropical rainforest or from Asia apart from flooding in Bangladesh.

School B studied USA, in spite of limited published resources, because of its importance in the world, and also Australia and Brazil. These three countries were studied in some detail with cross referencing to other comparable places, thus deliberately enlarging the curriculum world. Case studies from many parts of the world were chosen to illustrate the GNC themes, but Asia was not studied at all apart from flooding in Bangladesh.

School C studied Italy, Japan and India, spending a whole term on each, a longer period than in other schools. Pupils were told why these countries were chosen and were encouraged to do extended reading on them through a collection of newspaper cuttings. Although there was no use of case studies from USA, Africa, Russia or the Middle East, there was some study of all parts of the world through a series of lessons on each continent focusing on key information and issues.

Interviews in Schools D, E and F were focused on Europe, excluding the UK. In all three schools, work on the whole of Europe was limited to a lesson on general map work and one or two lessons on the European Union, its purposes and member countries. All three schools had chosen Italy as its MEDC. This was explained in terms of availability of resources, because of teachers’ and pupils’ visits to Italy and because pupils had some knowledge through Italian cultural influences in England. The approach to studying Italy varied. School D adopted a systematic approach

focused on landscape, climate, population and contrasts between north and south. School E included a more enquiry-based approach with pupils being asked to investigate whether the north/south divide was still valid. School E had developed a series of activities designed to develop 'thinking skills' through the study of Italy.

When studying the themes prescribed in the GNC, teachers chose very few illustrative case studies from Europe. The examples included: tourism in Majorca, Benidorm and the Alps; migration from Kosovo; volcanoes in Italy and pollution in the North Sea. Thus, the map of Europe constructed in these schools was as peculiar as the world maps in Schools A, B and C. Italy dominated the study of Europe. Areas of neglect included Eastern Europe, Scandinavia, Germany and the Republic of Ireland.

In all six interview schools, the places studied were almost all chosen by the teacher; pupils had extremely limited opportunities to choose which places they studied or to incorporate their own personal experiences of place into their study of geography. There was little evidence that teachers consciously thought about the world they were constructing through the curriculum. Views differed on whether the patterns of attention and neglect mattered. Some thought that pupils should have a framework of knowledge about places and a sense of place and attempted to develop this a bit through map work and quizzes. Others thought it was more important to develop a range of skills than to develop knowledge about particular places.

Discussion

Just as every map projection distorts in its own way, so did the curriculum choices of each geography department. There were distinct patterns of attention and neglect.

The countries that received the most attention were Italy, Japan, Brazil and Kenya, which I'll term the 'big four'. This is an odd list. Although these countries were named in the first GNC, this is insufficient to explain their dominance. Other countries specified in GNC 1991 such as USA, Germany and China are almost totally neglected now.

There are several reasons why the big four have become so dominant. Hopkins (2001) studied the shape of the world constructed through the different textbooks series produced for successive versions of the GNC. He noted the emergence of a limited number of countries for study (Brazil, Kenya, India, Italy and Japan) and the neglect of countries that might have significance for minority groups in England (e.g. Pakistan). Three of the 'big four', Italy, Japan and Kenya, were selected for inclusion in the first edition of Key Geography (Waugh and Bushell, 1991), which became by far the most popular of the textbook series written for GNC 1991. Key Geography books had been used at some stage by 82% of the survey schools, with 74% continuing to use them. Choices made by textbook authors became further entrenched as producers of television programmes, atlases and textbooks tended to follow the dominant choices. The curriculum position of the 'big four' became further embedded by schools linking the study of themes with the chosen countries, e.g. linking Brazil with the study of tropical rainforests, and Italy and Japan with the study of volcanoes and earthquakes. A sort of curriculum inertia has now set in with teachers continuing with their existing choices even when not constrained by

prescription. Interviews showed that departments had invested time and money in developing resources on their chosen places and that teachers had developed confidence in teaching them.

The use of case studies to illustrate themes extended areas of attention. In the interview schools, the UK, although not selected as a country for study, was given a lot of attention because of its use for case studies to illustrate the themes. This could be explained by its dominance in textbook case studies (Hopkins, 2002). The use of case studies, while extending coverage of the world, was not without its problems. China was studied mainly as an example of population policy. Bangladesh was studied only as an example of flooding. Such studies, if unsupported by a broader contextual study, could lead to stereotypical and misleading images.

There were distinct patterns of neglect. Little or no attention was given to the study of USA, Russia or the Middle East and only a minority of schools gave any attention to China or India. These omissions, which were common among all schools, made the KS3 worlds very peculiar. The interviews showed that the worlds of individual schools were made even odder by additional areas of neglect e.g. the whole of Africa, or Europe or Asia.

Several issues have emerged from this small study. First there is the dilemma of depth versus breadth of study. The interview schools illustrated the value of depth of study developed through school exchange links with Zanzibar, through extended reading on Japan and through the use of the same country for case studies to illustrate issues and themes. Breadth of study was developed through references to similar cases in other parts of the world, through providing overviews of issues in each continent and through studying the wider context of the countries chosen for study, e.g. the European Union. GNC 2000 encourages breadth of study through the requirement to study interdependence of countries and to study at a range of scales from the local to the global, and through the study of topical issues. These aspects of the GNC requirements related to place were not emphasised in the interview schools. The disadvantages of studying a few places in depth could be reduced if topical issues were to be regularly studied in schools. Study of the enlargement of the EU and debates about its future would enhance the curriculum map of Europe considerably.

Second, there are issues related to areas of neglect. The worlds constructed at KS3 excluded the most powerful, the most rapidly changing, the most populous and the most globally significant countries in the world. Can pupils whose geographical imaginations are being shaped by such peculiar worlds, really develop much understanding of the world they live in? Are there places in the world that should be included in every curriculum and if so who should decide? Increased study of global context and interdependence would inevitably draw these neglected areas, e.g. China and the USA, into the KS3 worlds.

Third, there are issues of representation. The worlds that pupils study in their textbooks are very different from the world of current affairs or the world as it is represented in photographs, reports and advertisements that pupils encounter in their particular cultures. A cultural turn in school geography, drawing on develop-

ments in academic geography, could develop pupils' geographical imaginations by encouraging them to investigate and become critically aware of how the world is represented in the media (Morgan, 2003) and in the textbooks they use.

Fourth, there is the issue of who should control the curriculum. GNC 1991 was criticised for being centrally controlled and prescriptive. Although the legacy of GNC 1991 is still significant, GNC 2000 is neither prescriptive nor controlling. Its flexibility gives apparent control to teachers, but when choices are influenced so much by resources it seems that it is the authors of best selling textbooks who are shaping the world. Pupils could be given more control by giving them the choice of places to be studied. In this study, only a few departments allowed such choices.

Lastly, there is the issue of difference. Whatever we do in schools, pupils will construct different worlds and develop different geographical imaginations through the interplay between what they learn inside and outside of the classroom. There is scope for greater acknowledgement of the different worlds pupils bring into the classroom, worlds shaped by their own direct experiences, through their contacts with other people, through their cultures and through the media. In this study, only a minority of schools justified choices in terms of pupils' interests, experiences, family connections or existing knowledge.

Conclusions

The worlds created through the geography curriculum are influenced by the requirements of the GNC, by availability of resources and by ways of thinking about the geography and the curriculum. This study revealed peculiar curriculum worlds with strange patterns of attention and neglect. It is inevitable that any world created through the curriculum is simply a partial representation. In the same way as it is impossible to produce an accurate map projection, so it is impossible to produce a curriculum that represents the world accurately. The findings of this small piece of research, however, has implications for initial teacher education and for the continuous professional development of teachers. It is worth considering ways in which teachers can become more critically aware of the peculiar yet taken-for-granted worlds they are constructing through the curriculum. It is worth endeavouring to make these curriculum worlds more extensive and more balanced and more related to the worlds that 11–14 year olds experience. This can be done through giving more time to the study of topical issues and of enabling pupils to make use of their own personal geographies gained directly through experience and indirectly through the media and through other people.

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Training geography teachers in Poland with regard to changes in school education

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Abstract

The paper shows changes in training of geography teachers that have been occurring in Poland since the late 1900s. Analyzed were curricula of schools of higher education, with particular regard to their quality. Teacher training is examined in the aspect of:

- contemporary conception of school education
- social-economic situation
- formal requirements of Ministry of Education.

The article also contains postulates of further modernization in teachers education, concerning both merits and pedagogy.

Key words: Polish education system, geographical education, training geography teachers

Introduction

The Polish education system has undergone huge changes in the last fifteen years. To a large extent, these changes are a consequence of the system transformation and reform of 1989 and accompanying changes in the economic, social, and cultural spheres. In the new, democratic, conditions of state functioning, the school model based on central administration and using uniform patterns of teaching and upbringing has proved to be inadequate. The range of competences developed so far in school education has also been recognised as insufficient. The citizen's qualities that have now become highly rated in the days of a market economy and developing self-government, are: open-mindedness, innovativeness, creativity and the ability to function in competitive conditions. That is why, starting in the early 1990s, changes in curriculum and methodology began to be introduced in schools, crowned by a systemic reform of education finally introduced in 1999.

Changes in Polish school system

The Polish school at the end of the past century was characterised by excessive factual knowledge. Within particular subjects, the achievements of their mother

scientific disciplines were presented, together with the whole specialist scientific terminology. Such knowledge was too detailed, often incomprehensible for the pupil, and unrelated to his/her needs and everyday experience. Besides, the style of teaching reflected in large measure the way in which the state functioned. In the centralised economic system, education was aimed at preparing pupils/students for predetermined tasks, hence the passivity of the Polish pupil/student. Overloaded curricula/syllabuses, dominance of factual knowledge, and related to it negligence in the sphere of skills in the pupil's/student's education, as well as the contents not corresponding to his/her capacities and needs, were the weakest points of the Polish school of the late 1990s.

In the conditions of political opening of Poland to the West, in the early 1990s, the educational approaches of **holism**, **personalism** and **activism** gained importance on the school ground. They became the methodological bases for the shortly implemented reform.

Adopting principles of the holistic approach in Polish education meant, firstly, abandoning the rigid division of the contents into subjects according to scientific specialisation, to the advantage of an integrative approach. Secondly, it meant the necessity of presenting all the objects, phenomena, and processes in a broad context, so as to demonstrate the world's complexity and to show correlations between its components. The paraphrase of the holistic idea in the functional language is the motto: **To understand the world**. The consequence of adopting the idea was joining together related subjects, especially so called "borderline" subjects, one of which is geography. The most spectacular example was combining, at primary school level, the contents of geography, biology, physics, and chemistry into one subject called "science". Moreover, at all levels of education interdisciplinary pathways were created, that is such form of classes where the contents should be realised with the co-participation of teachers of different specialisations. The geographers' sphere of interest includes primarily the regional, European, and ecological pathways, and some others, like health and media pathways.

Adopting the idea of personalism meant changes in the approach to the pupil/student. The fundamental goal of his/her education was defined as assisting in his/her development, not only intellectual, but also physical and emotional. It was no longer the achievements in particular scientific disciplines, but the pupil/student who became the principal reference point for the choice of the contents, methods, and other elements of education process. In the school work organisation, his/her capacities, interests, and needs became important determinants. At the same time, the principal task of the school was defined as preparing the pupil/student for efficient functioning in life, in its personal, professional, and social dimensions. Emphasised was the need of developing such skills as: communicating, team work, problem solving and the organisation of individual learning/studying.

That approach was matched perfectly by the concept of activism, whose main idea is developing the pupil's/student's active attitude towards the tasks set for him/her. Activism at school means organising the process of education in such a way that the pupil/student acquires knowledge through his/her own work. The work involves

a series of intellectual as well as practical activities. Its proper organisation is one of the main tasks of the teacher. The principle of activism has also been reflected in school textbooks. Their important elements are sets of didactic tasks that guide the process of reception and interpretation of the contents contained in various sources of information.

Thus, in less than two decades, the Polish school has undergone substantial changes. The methodological bases of education have been thoroughly re-constructed. Among the goals, paramount role was ascribed to those belonging to the spheres of attitudes and skills. New types of classes appeared, both in respect of the contents and their organisation. On the school market there are now many alternative teaching curricula/syllabuses, and even more textbooks for pupils/students. The effects of education are measured through a system of external exams after each stage of education has been finished. Teachers are morally responsible for the results achieved by pupils/students.

Contemporary geographical education at school level

In the reformed school, geography as a separate subject is present at both levels of secondary school. In the primary school, its contents constitute part of the subject called “science”. Alongside those organisational changes, the reform has been followed by major changes in the selection and layout of geographical content. They can be formulated as follows:

1. The emphasis has been shifted from physical geography to socio-economic geography. In the middle school, issues connected with human activity are reflected in more than half the entries of *Basic curricular requirements* (Ministry of Education and Sport, 2002). At the secondary school level traditional physical geography is even less important. It is primarily the presentation and explanation of economic and social mechanisms of the contemporary world that has become the essence of geography. In this way the postulate of preparing the young generation for participation in social and professional life is realised.
2. The layout of geographical contents has changed. A systematic geography course, that would present successively the elements of geographical environment, has been abandoned. The “problem” approach is preferred, where the contents of different areas of geography concentrate around specific issues. There is also a tendency to integrate geographical contents with the contents of other related subjects.
3. Problems are examined in different scales. At primary school level, as part of the “science” subject, geographical phenomena are analysed chiefly in local, regional, and Poland-wide scales. At the levels of middle and secondary schools, it is recommended to approach most of the problems at the global scale, referring to corresponding examples from each continent, and from Poland.
4. The geography of Poland is no longer a separate thematic block. The pupil/student learns about the characteristic features of Poland’s geographical space against the background of other regions of the world, with close reference to the global processes.

5. The principle of usefulness has become one of the criteria in the selection of content. Exposed are real problems from various areas of life. Special meaning has been given to explaining mechanisms of contemporary world economy, processes of the development of societies, as well as their demographic and political problems. The contents from the fields of tourism and recreation have been ascribed higher rank, both in the scale of the country and that of the world.
6. The knowledge of how the “man-environment” system functions has been broadened. The socio-economic phenomena and processes are shown in relation to natural conditions. A lot of space is also devoted to presenting their consequences to nature.
7. At all levels of education geographical content has been connected to regional education, understood as teaching about the region where the pupils/students live.
8. Among skills, the ability to use various sources of geographical information (such as maps, plans, statistical yearbooks, different types of pictures, internet, GIS, and others), holds an important position.

On the whole, contemporary geographical education in the Polish schools has got rid of factual knowledge. Its goal is to help understand the phenomena and processes occurring in the environment of human life in various places of the earth.

Preparing geography teachers for the realisation of education tasks

The theoretical assumptions adopted make school geography a subject of significant social usefulness. At the same time, its new character sets high demands for teachers. Their professional preparation calls for a wide range of methodological competence, but also complementary and topical knowledge about the environment, as well as about various forms of human activity in the environment.

Training of geography teachers takes place in thirteen academic centres in Poland conducting geography studies. Pedagogical preparation follows the Ministry of Education standards that give specifications for the set of compulsory subjects of the field, the hour limits for teaching, and the general outline of the content. But the subject-matter preparation of geography teachers is not regulated by official documents, and is carried out differently in each of the centres, depending on its research paradigm and its tradition and expertise. The only common kernel for all the schools of higher education are the basic curricular requirements specified by the Ministry of Education, that regulate the set of basic subjects, obligatory for geography studies, with an outline of their contents.

The pedagogical preparation of geography teachers is basically the same as that of other subject teachers. During the uniform MA studies they are obligated to the total of 480 hours of training, spread over minimum two years of studies. The block consists of the following subjects:

- psychology and pedagogy – the total of 150 hours
- didactics of geography – 120 hours
- geography teaching practice in various types of schools – 150 hours
- voice practice – 30 hours

- optional subject (30 hours) useful in school practice, e.g. ethics, knowledge about the region, safety rules at school

Since 2004, the professional development of teachers has also included learning a foreign language to an extent that allows its fluent use. Similar requirements have been set for ICT. It is obligatory to organise classes on computer, operating and using IT as a didactic means, however the hour limits for this has not been specified. Moreover, it is possible to organise additional classes of a methodological character.

The process of educating geography teachers at a higher education level is gradually being adapted to the requirements of the Bologna Declaration. During two-cycle studies, the principle of double specialisation is in force. Students acquire qualifications to teach another subject besides geography. Moreover, individual academic centres offer postgraduate studies to teachers who want to improve their qualifications.

The block of pedagogic subjects, which qualifies for the job as a teacher, is treated as optional, only for those who are interested in working in education. Therefore, it is not assigned to a particular year of study. Such a solution promotes the mobility of students between various academic centres. Unfortunately, it is only some universities that credit the pedagogy block according to the ECTS system.

The formal requirements for teacher training have not changed much since 1992. Since then, the general scope of compulsory subjects has increased only by sixty hours, with the obligatory foreign language and ICT training being a novelty. More substantial changes have occurred in the goals and content of the subjects in the pedagogic block. A survey conducted in the geography centres in 2004 and the analysis of guidebooks containing university curricula, showed that new contents and approaches have been taken into account in geography teachers training.

The changes have occurred chiefly in the following aspects:

1. Students are instilled in independent opinion/judgement formulation. They evaluate the methods of work, various didactic materials, including school syllabuses and textbooks. It is a stage preparing them for making similar decisions in their future professional work. At the same time, an attitude of being critical towards opinions and suggestions of others is developed.
2. It is also emphasised that the students should be convinced of their individuality and resulting from it the possibility of choosing various ways of action. In the old system, teachers were treated as a group of uniform attitudes, opinions, and no possibility of having individual preferences.
3. Taken into account is the problem of teachers being innovative, that is their ability to initiate and introduce new didactic materials and new approaches into school practice.
4. The curricula raises the problem of the need for reflection over oneself, one's own attitude, and the adopted strategy of teaching. They show the need for continuous evaluation by means of analysing one's own actions and comparing the results obtained with the plans made earlier.
5. There is a clearly marked orientation of students-prospective teachers towards the pupil/student. His/her capacities, needs, and interests are taken into consideration. Those qualities are treated as reference points in organising any didactic work.

6. An important issue in the curriculum of pedagogic subjects is also the diagnosis of the pupil's/student's development and the ability to modify teaching strategies depending on the results of teaching.
7. Among the contents of training prospective teachers, there is a motto: *Planning your professional development*. University preparation is thus treated as only the first stage of becoming a teacher.
8. In classes, many problems are solved through team work, which develops the skill of effective co-operation that is so important in the work of the modern teacher.
9. It is also very important to develop communication skills that will allow efficient exchange of information and feelings in the direction of teacher-pupils/students, teacher-parents, teacher-representatives of the local environment.

As the above shows, modern curricula/syllabuses for the subjects of pedagogic blocks follow the changes in school geography. A fact of the greatest significance is that beside the traditional methodology course, with the training of the pupil's efficient work organisation skills, the classes prepare prospective teachers to make **autonomous choices**. Emerging from the programs analysed is also the model of a teacher-creator who forms the didactic process, adjusting it to specific conditions. At the same time, attempts can be noticed to develop in prospective teachers **an attitude of being open and ready to improve** both their methodological competence, and their own approach. It can be said that the curricula for educating teachers takes into account the needs of modern school education. They prepare the student for taking the first steps in the profession. At the same time, they are convinced of the need for continuous improvement and training. Maybe more effort should be put in the area of co-operation between the teacher and pupils/students on one side, and local community on the other.

There is, however, an evident lack of adjustment of the subject-matter preparation. It is a fact often stressed by didactics research (Stańczyk 2002, Szkurłat 2004). In most of the higher education institutions, geographical studies curricula contain subjects corresponding to narrow scientific specialisations. As a rule, physical geography is present in wider range. There is also a lack of subjects integrating individual pieces of knowledge. Polish university geography shows a particular reluctance towards demonstrating relationships between human activity and the environment. Such an approach is treated as a sign of geographical determinism, in its pejorative sense. The student has no occasion either for getting to know the problematic formulation of the contents, because the contents of the university subjects are very often arranged in a schematic encyclopaedic way. The same refers to the problem of using different spatial scales. At higher education institutions, such an approach is quite rare. Besides, education at the higher level is oriented towards the passing of knowledge, while the sphere of the student's skills remains acutely neglected.

The concept of school geography, in respect of the approach to the contents, runs ahead of university practice. Higher education schools are institutions with great curriculum/syllabus autonomy. They are not included in the reform on the grounds of administrative decisions. They reform themselves in their own pace, more with regard to research and finance than education. Besides, they function independently

of the lower levels of education. Hence there is a discrepancy between the requirements of school education and the subject-matter preparation of teachers for work. As a result, the graduates of geographical studies have to make a huge effort in order to design new high quality geography on the basis of the specialist knowledge they have received. Teachers' postgraduate studies, with curricula constructed usually by the didactics of geography, can be of help. Knowing the school's needs, they aim at the proper choice of subjects and the adequate approach to the contents of each of them. Few geography teachers undertake such complementary studies. In order for geography teacher education to have a professional character, a new model of academic training needs to be worked out.

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Interdisciplinary pathways: gains and losses

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Abstract

The paper presents an assessment of interdisciplinary pathways in Polish schools. In the first part, theoretical foundations of such classes are presented, as well as models of their implementation. In the second part, based on a survey conducted in schools of the Lublin province, an analysis of the factual situation is made. Presented in detail are three pathways whose realization involves geographers, i.e. ecological pathway, regional pathway, and European pathway. The ways of organizing such classes are discussed and evaluated. The final result is a list of advantages of interdisciplinary pathways, as well as their minuses resulting from objective factors and from lack of understanding of the idea.

Key words: interdisciplinary, schools, pathways, curriculum

Introduction

One of the principal tasks of contemporary Polish school education is working out a teaching model that would realise the idea of a holistic approach to contents. The purpose for integrating the contents is to make pupils aware of various interrelations and interdependences among the elements of their perceived reality. One effect of the integrative efforts is a formation of classes new to Polish schools: the interdisciplinary (cross-curricular) pathways, sometimes known as the short educational pathway. Although the idea has been known in Polish didactics for quite a long time, as an institutionalised form of classes it was introduced in 1999.

Interdisciplinary Pathways

The educational pathway is defined as "...a set of contents and skills of educational importance which can be implemented within different subjects or as separate classes" (Ministry of Education and Sport, 2002). When putting that definition into the language of practice, a few most important facts need to be stressed:

- each educational pathway is assigned particular contents to be realised
- the pathways are not assigned any definite hour limit
- pathway implementation should be carried out by the teachers of various subjects
- organisational form is not specified

Interdisciplinary pathways are implemented at all levels of school education. Their full listing is given in Table 1. The pathways can be organised in a variety of ways. Practice shows that schools realise four models (Figure 1–4; after Pacholska, Kozak, Bloch and Koralewska 2001):

- the one-subject model: the contents specified by the basic curricular requirements are incorporated into one selected subject (Figure 1)
- the multi-subject model: the pathway contents are realised within different subjects (Figure 2)
- the block model: the pathway contents are implemented during additional classes/ activities, separate from the subjects taught; they can take the form of an excursion, lecture, workshops, theme sessions, etc. (Figure 3)
- the mixed model: part of the pathway contents is incorporated into one or more subjects, and the rest is implemented during separate activities (Figure 4).

A survey conducted in 120 schools of Lublin region has shown that the multi-subject variant is preferred. In the case of European, ecological, regional, as well as the literatures and media pathways, some schools employ the mixed model. Part of the contents is established by teachers within particular subjects, but separate, occasion-based extra-curricular activities are also organised, devoted to specific issues. In the case of the ecological pathway, this may include field trips, excursions or tidying-up the immediate surroundings. Typical of the European pathway are „culture” days devoted to selected European countries or meetings with representatives of those countries. The regional pathway often involves visiting museums, regional knowledge contests, art contests, and workshops dedicated to the tradition, rites and customs of the region. The form typical for reader’s and media education are sessions about editing school newspaper or running school broadcasting system.

Table 1. The listing of interdisciplinary (cross-curricular) pathways for each stage of education.

INTERDISCIPLINARY PATHWAYS		
PRIMARY SCHOOL PATHWAYS	SECONDARY SCHOOL PATHWAYS	COLLEGE PATHWAYS
Pro-health path	Pro-health path	Pro-health path
Ecological path	Ecological path	Ecological path
Reader’s and media path	Reader’s and media path	Literature and media path
Society path	Regional path	Regional path
–	European path	European path
–	Philosophical path	Philosophical path
–	Civil defence	Life-in-family path
–	Polish culture across Mediterranean culture	–

The survey showed as well that not all the schools have decided to implement interdisciplinary pathways, or they are not being fully implemented. The least frequently developed one is the philosophical pathway. The subject matter is too difficult for teachers. It

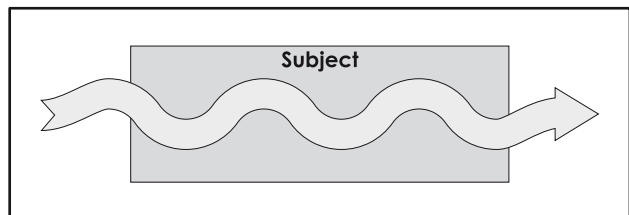


Figure 1. One-subject model of organising interdisciplinary (cross-curricular) pathways.

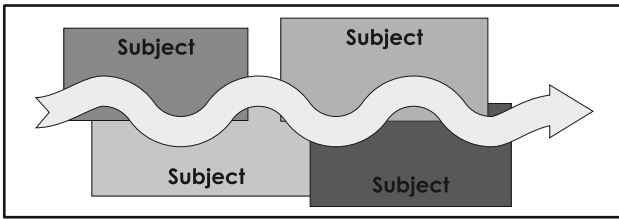


Figure 2. Multi-subject model of organising interdisciplinary (cross-curricular) pathways.

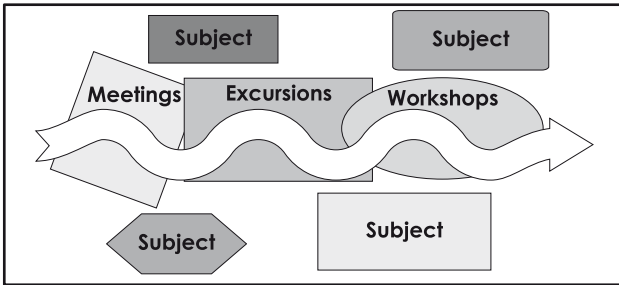


Figure 3. Block model of organising interdisciplinary (cross-curricular) pathways.

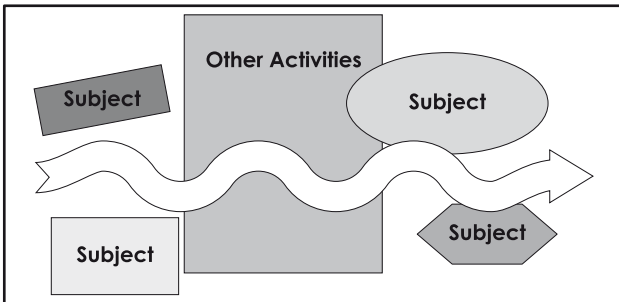


Figure 4. Mixed model of organising interdisciplinary (cross-curricular) pathways.

involves specialist issues, that call for knowledge of the history of philosophy, the fundamentals of various philosophical schools, as well as their research methodologies. The professional training of teachers of particular subjects is not sufficient for them to be sufficiently knowledgeable in those areas.

Implementing pathways

The results of the development of an interdisciplinary pathway depend to a large extent on its proper preparation. Each teacher participating in task realisation has to be assigned specific responsibilities. It is also important to plan their work reasonably and synchronise it in terms of time. The first step in preparations is that the school staff should undertake careful examination of the goals and contents of a given pathway. Detailed analysis of basic curricular requirements will allow the teachers who will implement the contents to be selected. At the same time, it is necessary to learn

about different ways of preparing interdisciplinary pathways. Subsequently, the assigned team, knowing the pathway contents and ways of implementing them, selects one of the approaches. The features of the particular community, as well as the school's educational environment should be taken into account at this stage. If the model chosen is other than one-subject, and further work will require the co-operation of several teachers, it is likely to be necessary to appoint a project manager or coordinator, that is to say a person who will supervise further preparatory work and monitor the achievement of the specific agreed fundamentals. The next step is to undertake a detailed review of syllabuses in each pathway that are available on the school market. If none of them fulfils the expectations, then it is appropriate to create a specially tailored programme. This can be prepared by the whole team participating in the implementation of a given pathway, or by a few selected people. The task of the project manager, is to assure the completion and quality of the programme. The curriculum must specify, apart from the contents details, the approaches for subject

delivery, and the methods of the pathway evaluation. The last stage of preparations consists in assigning tasks to each teacher and planning the schedule. Thus the prepared project can be finalised. The preparatory process described above is illustrated in Figure 5.

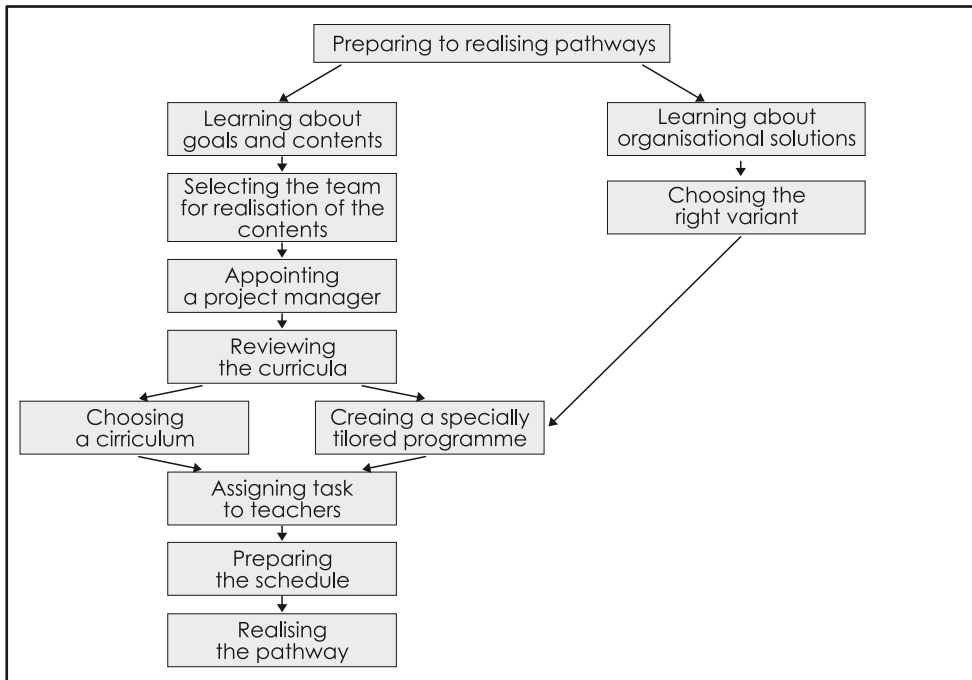


Figure 5. Steps in the process of preparing an interdisciplinary (cross-curricular) educational pathway.

Interdisciplinary pathways have been present in Polish school merely for six years. Working out the right methodological solutions required a huge effort from the teachers and the whole school community. However, the latest school education programme project, planned to be implemented in the school year of 2006/2007, proposes that interdisciplinary pathways be removed from the curriculum. Such a prospect inspires reflection on the value of such form of classes. The question arises, what are its negative aspects? What problems have been created for schools by the introduction of educational pathways? What are the facts that negate the sense of their further existence? It seems that for the „losses” the following arguments can be presented:

- Introducing interdisciplinary pathways meant introducing new contents, which in turn meant that pupils needed to stay longer at school, or else that some subjects contents already taught needed to be left out.
- A number of pathways at each educational level would indicate that one teacher may be involved in the implementation of several. It is difficult to imagine how he/she could synchronise work in several teams.
- Teachers of some subjects are not equally engaged in pathway development and implementation. For example geographers, biologists, or historians, on account

of the contents they teach, participate in many more educational pathways than physics or PE teachers. How can this extra work be related to salary?

- Pathway implementation is a huge burden for teachers. Even if already existing curricula are employed, they need to be modified in order to fit a given school's conditions.
- As schools are free to produce the contents in the way they choose, the results obtained in different schools cannot be compared.
- If a pupil moves to another school, the consistency of his/her education is interrupted.
- There is no ideal form of educational pathways implementation because:
 - In the case of selecting the one-subject model, the noble idea of multi-level problem examination remains in the sphere of fiction. Not many teachers possess a knowledge which is broad enough to present a holistic picture of the world. When that variant is adopted, despite the assumptions made, the pathway contents is rendered one-sidedly and usually consists merely of extra information on a given subject. There is little integration or inter-disciplinarity involved.
 - If the multi-subject model is employed, in which the pathway contents is realised within several separate subjects, organisational problems cannot be avoided. In this model it is important to follow the chronology of contents, so that their logic is preserved. Thus, one unpredictable incident, such as for example the illness of one of the teachers, is enough for the whole plan to be upset.
 - In the multi-subject model there is also a considerable risk of individual teachers' providing a superficial approach. To save time, they might skip some of the pathway contents or do it in a narrow way. As the responsibility for the pathway implementation is shared by many people, it is easy to miss out things.
 - Pathway implementation with the use of the block model takes a lot of extra time. Preparation and conducting of separate, extra-curricular classes, is done at the cost of teachers' free time. Hence, one more problem arises: how to include their work in the duty load, and how to assess each person's contribution.
- Co-operation among teachers may prove difficult, because of personality differences. Within the team working on a given pathway conflicts may arise, that may influence the educational effects.

The practice shows, however, that interdisciplinary pathways are also quite beneficial. On the side of „gains”, the following facts should be listed:

- Proper pathway completion allows the pupil to get to know a given phenomenon in a holistic way, shedding light on its many aspects. This makes it possible for the pupil to notice various types of interrelationships and interdependencies among the elements of reality. Even in the one-subject model, in which one teacher is responsible for implementing a given pathway, such an approach to the contents is possible. A teacher conscious of his/her tasks will broaden his/her knowledge and use it in the best way possible.
- Interdisciplinary pathways prevent the doubling of so called „borderline” problems which may be present in several areas.

- Pathways signal important tasks to be accomplished, e.g. regional education calls attention to the need of developing the sense of affiliation with one's residence place. Health education makes us realise that the „stay-healthy” trend should be propagated. If pathways are removed from the curriculum, the awareness of those features may disappear.
- Thanks to the pathways, schools can organise many useful actions and events, such as cleaning up of the immediate surroundings, tidying objects or places of historical importance, or creating a school garden.
- Pathways are not ascribed any arbitrary organisational form, nor specified time for the contents to be completed, thus they allow teachers to employ new, attractive solutions.
- Pathways are the opportunity for initiating theme classes, longer than one lesson unit. They are either additional, extra-curricular activities, or they are a combination of classes belonging to different subjects. They give pupils an occasion to show their extra-school knowledge and their talents, for which there is no place during a typical lesson.
- Many of the tasks require effort on the part of pupils. It develops their various skills and instils them into autonomous thinking and acting.
- Separate classes devoted to the realisation of a given pathway are characterised by a more relaxed atmosphere, the teacher-pupils relationship becomes less formal, and there is a chance for them to get to know one another better, and for the bonds between them to tighten.
- Pathway implementation makes teachers active, stimulates their ingenuity and creativity. Success in class is the source of professional satisfaction, motivating them to further quests. School success may be transferred into other spheres of life.
- Pathways give a teacher a chance to perform new functions, e.g. that of a project manager. This increases his/her self-esteem as well as his/her prestige among colleagues. They are also a means for the teacher's self-improvement, and constant enhancement of their competence.
- Teachers co-operation may be an occasion for getting to know one another better, and forming of friendly-professional bonds.
- Pathway realisation often requires the participation of people not belonging to the school community, thus encouraging contacts between the school and the parents as well as the local community.

The above evaluation shows that the advantages of interdisciplinary pathways are undeniable. They are particularly evident in the spheres of skills/competences and attitudes. It is especially true with the models in which pathways are realised with the participation of several teachers and, at least partially, during separate, extra-curricular classes. Such organisation will assure a multi-aspect approach to the contents, and at the same time bring educational benefits. It will serve both the teacher's and the pupil's development. The biggest minus of interdisciplinary pathways are organisational problems. It is a new form of classes, and schools still lack experience in their realisation. Working out the right solutions requires some effort and is often achieved in the process of trial and error. Predominance of

errors may have a negative impact on further work. Nevertheless, the benefits are quite significant, and abandoning that form of classes seems detrimental. It should, however, be considered whether all pathways should remain. They differ in relative importance. There are, however, some pathways as for example regional education, whose removal would mean the abandoning of certain significant educational ideas. Even if at present the pathways are not being implemented by every school, and their effects do not meet expectations, we cannot nullify the work of other schools whose work brings excellent results.

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Geography competitions as stimuli for advanced students

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Abstract

Geography Olympiads have been held in Estonia since 1965. Students from the University of Tartu have been taking part in the Baltic Geography Olympiad and in 2004 they participated first time in the International Geography Competition. In this paper we review and analyse the experiences of previous national competitions, results of a questionnaire on opinions among participants of the last Olympiad and consider possible means for the further development of such competitions.

Key words: School geography, Geography Olympiad, gifted pupils

The Gifted and Talented Development Centre and Olympiads in Estonia

If we recognize that some children are more gifted than the others, special attention should be paid to enable them to maximise the realization of their talents. The ordinary school system may be insufficient for this purpose and – as in arts and sports – also in pure and applied sciences (mathematics, physics, chemistry; natural sciences: biology, geology, physical geography; social sciences: sociology, economy, human geography; human sciences: philology, psychology etc.) different activities for gifted students have been started long ago. In Estonia, the first school students' competition in solving scientific tasks took place at the University of Tartu in 1950. In the academic year 1953/54 Olympiads in sciences started. According to recent research, gifted pupils consider the Olympiads as the main incitement to penetrate deeper into science (Sepp, 2002).

Similar ideas and activities had been developed in the 1960's among geographers in Estonia and this resulted in 1965 in the establishment of national Geography Olympiads. Since then, 31 National Geography Olympiads have taken place and more than 1,500 students have had experienced the final competitions. The outcomes and substance of the competitions have been analysed in two small books (Raik and Benno, 1981; Mardiste, 1988). Since 1996 seven Baltic Geography Olympiads have taken place and in 2004 Estonian students for the first time participated in the 5th International Geography Competition in Poland.

The Olympiads' movement in Estonia has widened during last decade and today there are 21 different fields of competition for gifted students in the homepage of national Olympiads (<http://www.ttkool.ut.ee/olympiaadid>). Since several subjects have at their top level output to an international competition, or else are looking for such possibilities, another aspect, the system of preparation to Olympiads has been developed. For that purpose The Gifted and Talented Development Centre was founded more than 30 years ago at University of Tartu aiming to “give talented

students in mathematics and sciences from all over Estonia guidance in their pursuit for self-realization and to organize additional schooling” (<http://www.ttkool.ut.ee/english.html>). This Centre is becoming integrated more and more with the Estonian e-University (<http://www.e-uni.ee>) using methods of e learning and giving challenging opportunities for any interested pupils (Roosaare and Liiber, 2004).

We will return to the questions of the future of Geography Olympiads in the last section of current paper. The next section provides an overview on structure of national Geography Olympiads in their historical development. The third section deals with current questions on the basis of an inquiry conducted amongst finalists of the last Olympiad.

Changing structure and altered accents in the National Geography Olympiads

The Geography Olympiad competition consists of two rounds, at county-level and a final (national) round. At the beginning the competition was oriented mainly to students with a deep interest in geography. The student’s own investigation was a precondition to take part in the Olympiad. Authors of the best research works were invited to attend the final competition. Since 1994 the county-level round (written work testing geographical knowledge and skills mainly according the school programme) has been organized to identify the best students in geography of every county so that they can take part of the Final (national) round. Every year more than two thousand students (ten times more than authors of research work in former times) participate in the county-level round and one hundred students of different age-groups altogether are invited to the Final (national) round. Over time, qualification to the Final round has become more serious and now students are invited to the final competition only on the basis of general ranking. Originally students were graded only at two levels: 6th to 8th form (aged 13–15) and 9th to 11th form (aged 16–18). Now, there are 4 age-groups: 7th (up to age 13; grade D), 8th (14; C), 9th (15; B) and gymnasium (16–18; A).

Many years ago, the final round took place in midsummer in the countryside as a camping event during a week with a strong emphasis on socialising the participants and familiarising them with local rural places. Now it takes place in springtime over a weekend (two days) in small settlements and are based on the local school facilities.

The final competition has consisted of different types of activity (Figure 1). Nowadays it consists of a written test (composed of different tasks), fieldwork and a quiz (about the knowledge acquired during an excursion). In 2005 for the first time computer-based exercises were also included in addition to the written test tasks. Orienteering was included in the programme of Olympiad because originally the organizers considered that physical fitness was needed to be a good geographer. Today, orienteering is very popular sport in the Northern and Baltic countries and as is almost considered as the professional sport of geographers, so it continues to be in the programme of final round, but its results are calculated separately and not counted for Olympiad’s ranking list.

The winners of the gymnasium level Olympiad have the possibility to take part in the Baltic Olympiad and in the International Geography Olympiad. Nowadays an important point for gymnasium level students is that the winners of the National

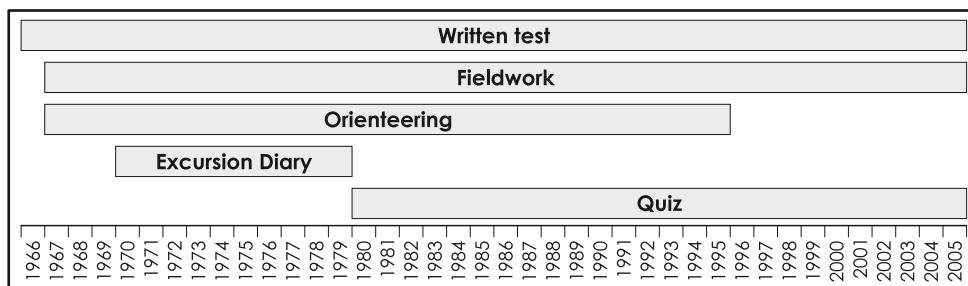


Figure 1. Changes in the structure of final competition

Olympiad and all the participants of the International Olympiads have a right to enter Tartu University without any examination. Several participants of Geography Olympiads have become well-known geographers.

Olympians – who they are and what are their expectations

A questionnaire completed by the students at the end of the last final competition (in 2005) enables us to make some analysis on school geography and Geography Olympiads from the pupils' point of view. Among 95 respondents there were 60 males and 35 females (with no clear trend in relation to age) from 42 different schools. There is an apparent tendency in Olympiads of all subjects that the geography of top students is narrowing and more gifted students are concentrated in a limited number of elite schools located in the capital city and some bigger towns. Many students consider the students' success in different competitions as one of the most important indicators of study progress and school quality.

Almost half (47%) of finalists have taken part (in addition to geography) also in local rounds of other Olympiads and 24% have been in other finals. On average, each finalist in geography participated (during the last two years) in 3.5 local rounds and 2.5 finals. Dominating subjects were biology and mathematics but a hypothesis that participants in mathematics and in biology belong into two different groups of students is not statistically reliable.

Students' interest in geography stems mainly from their school experience, the school and teacher were said to be "quite important" or "extremely important" for 83% of students, whereby the students indicating the importance of their home (50%), were as a rule considering the school as being equally important.

Geography teachers whose students compete in the Final round were mostly famous and acknowledged specialists. They spend lots of time working with the candidates of Olympiad. At some schools there are even additional geography lessons for talented students. For those teachers the Final round of the Geography Olympiad has changed meaning in some respects to become a competition among the best teachers.

Students evaluated the complexity of different types of questions in the written test using five ratings in the scale 1 = "a stumbling-block for me" ... 5 = "my hobby horse". Since self-appraisals (average ratings of all types of questions) of different grades were different, it is more informative to compare the deviations from the grade's average ratings (Table 1).

Table 1. Differences in estimation of questions' difficulty amongst different grades

Type of questions \ Grade	A	B	C	D
Tasks that are testing the geographical facts	-0.36	-0.14	-0.01	-0.22
Tasks that are demanding the analysis of situation	0.41	0.04	0.14	-0.22
Tasks that are demanding the generalization	0.39	0.18	-0.22	-0.33
Map questions	-0.04	0.00	-0.12	0.57
Identifying the pictures	-0.37	-0.10	0.20	0.20
Ratings' average for a given grade:	2.90	3.05	3.33	3.01

Regarding the fieldwork, the students had to indicate which exercise was the easiest and which one was the most difficult. Practically all exercises were mentioned, the determination of bearings was most numerous amongst the “easy” tasks and compilation of landscape profile amongst the most difficult tasks. We were also interested in participants' opinions on the proportion of events in final. To obtain more reliable quantitative estimates we used Saaty's method of Analytical Hierarchy Process by means of Idrisi software tools (Eastman, 2003). In total, 28% of respondents showed consistent assessments and the figures presented in “Desirable” section of Table 2 were based on these answers only. The real structure is shown according to an average sum of points.

Almost all (95%) students were using computers at home, 84% of these computers were connected to Internet. Therefore we might presume that their computer literacy is relatively high. However, the questions about computer use show that their knowledge is narrow, especially from the point of view of geographical applications. Although 83% of students have used the Internet to find geographical illustrations (and 72% to find any map), only 16% of them were doing it continuously. Several interesting and useful native (Estonian) electronic textbooks and web sites offering interactive computer maps were used only by one quarter of the students. It is probable that students are not sufficiently informed about such possibilities. Also, a serious fact for organizers to consider is that students were in surprisingly undivided opinion that computer-based exercises in the written test were a rather undesirable experience.

Table 2. Events' structure (per cent) of final competition

	Grade	Written test	Fieldwork	Orienteering	Quiz
Desirable	Gymnasium	47.4	34.4	9.3	9.1
	9 th Form	51.6	32.4	6.4	9.4
	8 th Form	45.9	33.7	9.3	11.1
	7 th Form	42.8	31.2	10.0	16.0
Desirable	Average	47.0	33.0	9.0	11.0
	<i>min</i>	<i>15.0</i>	<i>4.0</i>	<i>3.0</i>	<i>4.0</i>
	<i>max</i>	<i>69.0</i>	<i>63.0</i>	<i>39.0</i>	<i>28.0</i>
Real	Gymnasium	57.0	33.0	–	10.0
	9 th Form	60.0	29.0	–	11.0
	8 th Form	65.0	25.0	–	10.0
	7 th Form	64.0	26.0	–	11.0

Challenges for the future

Nowadays there are lots of web-based activities or projects for self-assertion on different fields and levels. The Globe programme and similar activities are examples which are oriented to students with research interests. A new challenge emerging at school level is that of e-learning giving students with a deep interest in a specific subject area an opportunity to study additional aspects to the school programme. In some cases – this is an alternative to being fixed to his/her teacher of a special subject. In fact, a learning network of pupils is already spontaneously working, both on a national level (writing and changing essays, for example) and an international level (finding privies of their hobbies). These initiatives have to be routed towards positive outputs (Roosaare and Liiber, 2004).

The role of The Gifted and Talented Development Centre, which consists today in preparing the students for national and international competitions, may be widened in future. In addition to adding a course of geography in the next academic year, we are looking for new possibilities and outputs. GIS as a common tool in geography should find its place also at school level. Taking into account the relative expense of GIS software and the desire to make learning more exciting, we foresee the possibility of competitions that use geoinformatics as an inter-school co-operation of student groups working on small projects. Maybe in the future such a thematic national network of school GIS projects will also internationalise and launch some kind of new competition, too.

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GIS-Use in Geography Lessons at Schools, Colleges and Universities – Innovation and Challenge

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Key Words: GIS, Geographical Education

Introduction

Outside schools and universities, GIS is spreading into all kinds of professions (geomarketing, precision farming, city administration); with a current growth rate of about 15% per year, there are now nearly a million GIS users worldwide. But the connection between the “real world” and geographic education at schools and universities remains poor. In the United States, only about 50,000 university students (barely 0.2%) receive GIS education currently; similar situations are found in Europe (ESRI 2000; U.S. Census Bureau 2002).

From the outset, a number of obvious questions arise: How, where and when do we teach in school with GIS? Since most GIS education involves training without much theoretical preparation, the great potential of GIS is still unknown to most students and teachers. For research projects also, it is a great challenge to find out whether Patrick Wiegand was right in saying: “GIS represents, in my opinion, the single biggest contribution geographers have made to society and economy since the Age of Discovery” (Wiegand, 2001, p. 68).

GIS in Geographic Education at universities – A perspective from Germany

Currently, the German teacher-education system doesn't include GIS education as a basic competence for geography teachers, so it is based on their own commitment and optional offerings by the universities. Once the higher education system starts to follow a Bachelors-and-Masters-Curriculum through the Bologna-Process, European Agreement 2010, for our teacher education, there will be a chance to integrate GIS techniques into Bachelors modules to learn about the potentials of GIS, while in Masters modules for geographic education/teacher education, we will be able to focus on the didactics of how to integrate GIS in a school curriculum. Such an integrative curriculum will require exchange between geography professors and those of geographic education.

A perspective from the United States

Worldwide, half the number of professionals using GIS as a part of their job are found in the United States, and about 20,000 schools there are now using GIS (Education World, 2004). At least 1400 American colleges and universities are involved, but only about 53% of the demand for Masters-level graduates with intensive GIS education is being met (ESRI 2000). Most professional preparation amounts to only a single GIS course, while a growing effort at professional certification calls for the successful completion of at least four courses. Because the university system in the U.S. is much less prescriptive than for example in Germany, there is less coordination or concern about what a standard GIS education should be for future teachers. At Bemidji State University (BSU) for example, GIS training of teachers is indistinguishable from that provided to natural resource specialists, political scientists, or criminal justice students. Still, nationally some remarkable examples of GIS curriculum are found in especially poor areas and in schools with predominantly minority populations, which is of special interest for BSU because of the presence in northern Minnesota of three large Indian reservations.

BSU offers a “Geographic Information Systems” course and a “Techniques in GIS” course, with initial exposure in a university-wide “Introduction to Map Use” course. There is no specific program for geographic education, but the social studies education unit is housed in the Department of Geography & Political Science, which also holds summer workshops for already licensed teachers wishing to add GIS competence. Six undergraduate degree options are offered to majors in geography, four of which include some GIS coursework. Three of the major options are pre-professional planning programs; the fourth is a Bachelor of Science program specifically emphasizing GIS, including not only three GIS courses but also three computer programming or data modelling courses, an internship experience, and a site analysis and planning needs assessment element. A 7-course GIS minor for non-geographers will be offered for the first time in the 2005-2006 academic year including curriculum modification to provide an “Advanced GIS” course. While BSU is not necessarily typical of American universities, its efforts (especially in light of limited staffing and material resources given its remote location and a student population of only about 6000) reveal the growing need to more than merely acquaint students with GIS software.

Student reactions to GIS

Nonetheless, it seems to be a global effect: students’ first steps in GIS are connected to frustration about the complexity of mastering the software, and as soon as you start to work on the next step, most of the knowledge from the previous lecture seems to be lost. At BSU, two weeks of a 14-week semester are spent just gaining familiarity with the ArcView “general user interface.” Basic exploration of datasets bundled with the software, together with a project designed to have students test a geographical hypothesis, take at least two more weeks. Optimally, students should be able to gather new data from beyond the material supplied with the software, and develop confidence manipulating that information, too. When 63 students in the BSU

“Introduction to Map Use” course were surveyed in the fall of 2004 about which of 11 topics they favoured the most, only 23.81% chose ArcView (though that was the most-favoured topic overall); another 30.16% favoured ArcView the least.

Why is it so difficult to integrate GIS in Geographic Education?

GIS is more challenging for teachers than previous technical innovations. Universities are able to present software as a new tool for geography, but typically they are unable to integrate it in a practical system for use in schools. In other words, there is a significant gap between teaching *about* GIS and teaching *with* it. Worse, universities have not yet discovered how to help future teachers really facilitate *student learning* with GIS. A combination of problems seems responsible for this: These include the complexity of the software (especially ArcView), lack of education-specific training (at colleges, universities and elsewhere), lack of time to prepare lessons (and few project-publications that are easy to adopt), a shortage of special data for geography-lessons at schools, and of course the necessary conviction that the effort to integrate GIS in the classroom is worth it. Needless to say, there are also basic but important issues about the lack of equipment, insufficient funds for site licenses and software upgrades, and communication gaps between teachers in the classroom and school administrators who are likely to remain unaware of the potential of GIS for their student populations.

Three steps to successful curriculum implementation of GIS

Early on, many institutions made the mistake of trying to directly adapt or follow project-learning with GIS (Figure 1: step 3) without sufficiently preparing students to do so (Figure 1: steps 1 and 2 GIS understanding and GIS-techniques). Now universities and schools both have realized that it is necessary for students to climb step by step in order to reach GIS-competence and to run a successful GIS-project using their own data-surveyed in the field.

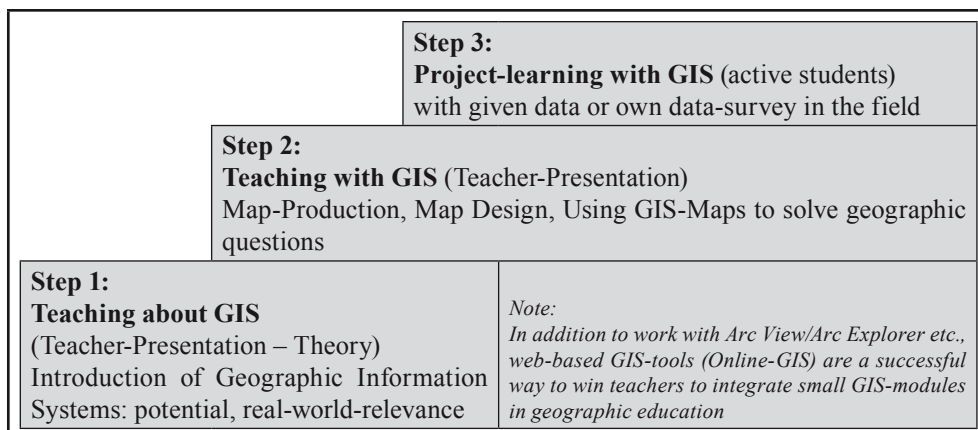


Figure 1. Steps to successful curriculum implementation of GIS

The process of GIS inquiry – Thinking geographically

Besides simply starting with large GIS projects, in many cases only software technique is emphasized. What is missing usually is clarification for the students of the basic “geographic question” behind any particular project. Malone *et al.* (2003, p. 6) suggest that there are five steps to thinking geographically:

1. ASK geographic questions
2. ACQUIRE geographic resources
3. EXPLORE geographic data
4. ANALYZE geographic information
5. ACT upon geographic knowledge.

To “ask geographic questions” is the first and hardest step, because how a question is asked has much to do with the rest of any GIS inquiry. Appropriately framing the question informs the second step (“acquire geographic resources”) since GIS inquiry requires specifying the geographic focus, the time period which data needs to cover, the topical aspects of the data, and whether it is already available or will have to be assembled by the user. At best, today’s curricula having to do with teaching about and learning with GIS fails to properly emphasize these crucial first two steps. Most programs “explore geographic data” (Malone’s third step) only in terms of what is already available with GIS software. The fourth and fifth steps (“analyze geographic information” and “act upon geographic knowledge”) are therefore usually inadequately carried out, despite being the culminating efforts of any GIS inquiry.

GIS in Geographical Education – Requirements for successful GIS work in schools

According to Audet and Paris (1996), the predictors of GIS implementation in education are {1} good computer file management, {2} databank skills, {3} comfort in giving students freedom to explore in class, and {4} existence of a project usable in the classroom. Kerski (2001) identified items that enhance GIS use: {1} the number of training hours, {2} the number of years a teacher had been teaching, {3} the number of teachers using GIS in one school, {4} the amount of technical and administrative support, and {5} the number of conferences attended. Kerski discovered the main benefits of GIS implementation in his research: {1} providing real-world relevance to subject matter, {2} providing an exploratory tool for data analysis, {3} enhanced learning, {4} enhanced motivation and student interest, and {5} integration of different subjects. These research results emphasize a high number of training hours in order to successfully implement a GIS curriculum, but besides providing teachers with user-friendly GIS software and training, we should keep working on research-projects. As Sarah Bednarz notes: “In terms of research findings, no study provides a “magic bullet” for GIS in education – the study that proves it is worth the time and effort to implement it, the study that will persuade the majority to adopt” (Bednarz 2003, p. 232).

The road ahead: Mobile Learning with GIS and GPS

While students at universities and teachers at schools are struggling with GIS in the classroom, geography and science education specialists are working on concepts around “mobile learning,” since fieldwork is the perfect connection of GIS- and GPS-use. The current interest in “geo-caching” (www.geocaching.com) might be the next step for education specialists to follow creating fieldwork concepts including both (GPS and GIS) in meaningful curricula to train spatial thinking and orientation in the field.

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Remote Sensing in Geography Education, illustrated by a vegetation dynamics study (Kikwit region, Democratic Republic of Congo)

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Abstract

As in many other sciences, the evolution in geography goes fast. New technologies take over old ones, new insights has to be implemented in the existing theories. Therefore geography education has to evolve. One of those new technologies is Remote Sensing. More and more, satellite imagery is used for all kinds of applications and many different sciences use this new technology. But there has to be a science which is occupied with the basics of Remote Sensing, and not only his applications. Since geography is always been the science occupied with all kinds of maps and map making, why not integrate the images and image maps as a study object of Geography. In the scientific Geographical milieu, the study of Remote Sensing has already been implemented. In schools nevertheless, it has not yet become a habit to instruct the basics of Remote Sensing. The education field is dropping behind on the work field.

This paper handles the implementation of Remote Sensing in geography education. About how we can reduce the gap with the working field and make our pupils aware of the importance and relevance of Remote Sensing. This is illustrated with a practical case, which will show how the vegetation dynamics of a certain area in the Democratic Republic in Congo, near Kikwit, can be studied without field work and, of course, using satellite imagery. Based on this case, and given the practical information about useful software and imagery many different (simplified) studies can be done, to teach the youth about satellite images and their use.

Key words: Remote Sensing, vegetation dynamics, satellite imagery

Introduction

Remote Sensing is a quite recent science that deals with the study of vertical images of the world. This paper will focus only on satellites' imagery, since the accuracy has recently become almost as good as imagery derived from air photography. Neither is the wide world of GIS mentioned in this paper. Satellite images are used for many different applications: the study of the consequences of earthquakes, volcano eruption, forest fires; natural enquiries as study of disintegration of coral reefs, erosion, pollution effects, global warming, vegetation degradation; military purposes, espionage, study of historical changes, landscape changes; all kinds of mapping applications; and many more. Therefore our education should include the basics of this 'new' technology to anticipate on future developments and make our pupils aware of the technological applications of geography.

In the educational field it is known that students can be motivated best for a subject when the relevance of the subject is shown. Therefore this paper mainly consists of one clear illustration how remote sensing can be used to study a relevant problem.

Basic Approach

Teachers can help make their pupils familiar with remote sensing imagery at quite an early age when learning about the environment and the world, using map material together with the images. Very simple examples from their own environment can serve as the pupils' very first contact with the wide world of remote sensing.

The technical background and actual registration process can be explained during the final years of secondary school, since a basic foreknowledge about the electromagnetic field is recommended as well as an all-round background for understanding the core of remote sensing principles. A general interest in and knowledge about the remote sensing and cartographic application should be present as well to motivate the pupils. For example when studying the vegetation degradation in a certain area, the basics about the global vegetation forms should be known, as well as an idea about the treats of vegetation degradation and its consequences.

Explaining all technical details of remote sensing at the level of secondary schools would be a mistake. The science of remote sensing is too wide and lots of facets are irrelevant. Therefore a severe and correct simplification of the remote sensing matter is required. The basic knowledge about satellite images has to be highlighted in order to keep the students' interest, as well as the application(s) the teacher is going to use as illustration. The following basic aspects are to be mentioned to situate the remote sensing science:

- The basic remote sensing vocabulary including terms as: resolution, pixel, raster, layers, colour composites, etc.
- The electromagnetic spectrum and the use of different waves for registration of typical features at the earth surface, spectral signature and the use of colours for visualisation
- The basic kinds of remote sensing satellites: from low resolution meteorological satellites, such as Meteosat, over traditional earth observation satellites, as SPOT, Landsat and ASTER, to very high resolution registration systems, such as Corona and IKONOS
- The image development process: from registration over modifications and visualization possibilities to actual interpretation.

Depending on the target group and the educational level, each of the above mentioned items can be approached on a more or less scientific level. Mentioning the possible inaccuracies and corrections can also be a possibility for remote sensing courses on an advanced level.

Example: Vegetation dynamics study in Democratic Republic of Congo

The vegetation dynamics study in Kikwit, DRC, will be illustrated here on a level that advanced geography students should be able to understand. This way it shows how remote sensing is being used to gain new insights from satellite imagery.

Introduction

The Democratic Republic of the Congo is a country situated in the heart of the African continent. Its central basin is for the greater part covered with rain forest, the vegetation north and south of this region has known a severe degradation during the last centuries and is now mainly covered with savannah and steppe vegetation (Résumé de la monographie sur la biodiversité, 1997, sp.). Deforestation is a serious problem and has negative consequences globally (climate changes) as well as locally (erosion, soil degradation and loss of biodiversity).

The Democratic Republic of the Congo has a quadruplicated population since 1960 (Democratic Republic of the Congo, 2001, sp.), which could have a significant impact on the natural (forest) vegetation. This study will examine the vegetation dynamics in a part of the country, using satellite imagery. The study area chosen for this purpose is situated in the Bandundu province, about 50 km south of Kikwit.

The study area can be described as a huge savannah plateau, intersected by dense forest vegetation in the river valleys. This forest vegetation consists of “palmerais” (palm grove), “foret galerie” (gallery forest) and “foret claire” (open forest) (Nicolai, 1963, pp. 68–79). The dense rural population is mainly self-sufficient and still uses wood as primary source of energy (Fresco, 1986, passim). Increase of this population is thought to have a manifest impact on the vegetation.

Remote sensing has proven to be a very useful tool for this kind of study. Satellite images complete the little information that is available of the area. They are an excellent tool for a multi-temporal study and visualise not only the visible part of the electromagnetic spectrum, but also the Near-Infrared light, which gives extra information about the vegetation. To cover a long time period, it was necessary to use satellite data from completely different sources. Images used for this study are:

- Corona images taken on the 11th of June 1965 with an original resolution of about 2.74 m × 2.74 m.
- Landsat image taken on the 16th of February 1985 with an original resolution of 30 m × 30 m at nadir.
- SPOT images taken on the 2nd of July 1987 (Id number SIH187070209110); on the 25th of May 1988.
- ASTER scene taken on the 21st of July 2001 with an original resolution of 15 m × 15 m at nadir in the Visual and Near Infrared bands.

Image classification

The image processing was done in ILWIS 2.2, a GIS-software created by the ITC (Enschede, 1997), in the Netherlands. False colour composites of these images were created. These visualise the green light of the electromagnetic spectrum in blue, the blue light in green and the near-infrared light through the red colour.

The Corona negatives, which are panchromatic, were put together into a mosaic, enclosing the study area. The remaining resolution after the pre-processing was 11 m × 11 m, instead of the original 2.74 m × 2.74 m.

Table 1. NDVI-classes and their correspondence with the ground truth

Name	NDVI-values	Ground truth
NDVI0	-1.00 to -0.60	burned and post-burned areas
NDVI1	-0.59 to -0.20	villages, fields and bare steppe
NDVI2	-0.19 to 0.00	steppe
NDVI3	0.01 to 0.20	regenerated steppe
NDVI4	0.21 to 0.40	“foret claire”
NDVI5	0.41 to 0.60	“palmerais faible” and “foret galerie”
NDVI6	0.61 to 0.80	“palmerais faible” and “foret galerie”
NDVI7	0.81 to 1.00	“palmerais dense”
clouds	digitised	clouds and cloud shadow

divided the different NDVI-values into eight classes as shown in table 1 and Figures 2 and 3:

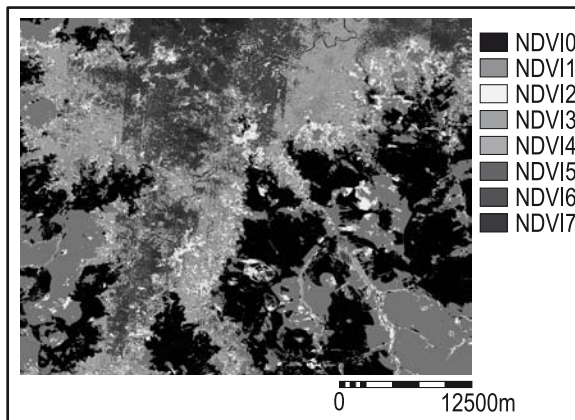


Figure 2. NDVI-classified SPOT image

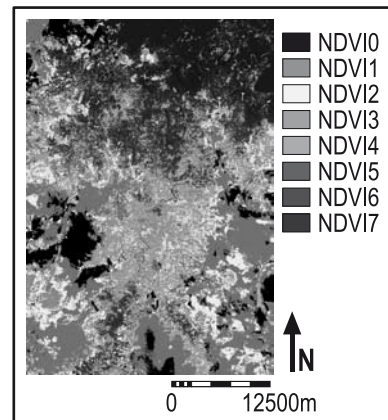


Figure 3. NDVI-classified ASTER scene

NDVI-classification was impossible on the Corona image. Therefore three clear vegetation categories were interpreted and digitised (Figure 4): ‘palmerais’, ‘forêt galerie’ and ‘forêt claire’.

Comparison of the classified images

Vegetation dynamics can be visualised and interpreted using multi-temporal colour composites. For this it is advisable to create binary images first, which undoubtedly facilitates the interpretation of the composite. These binary

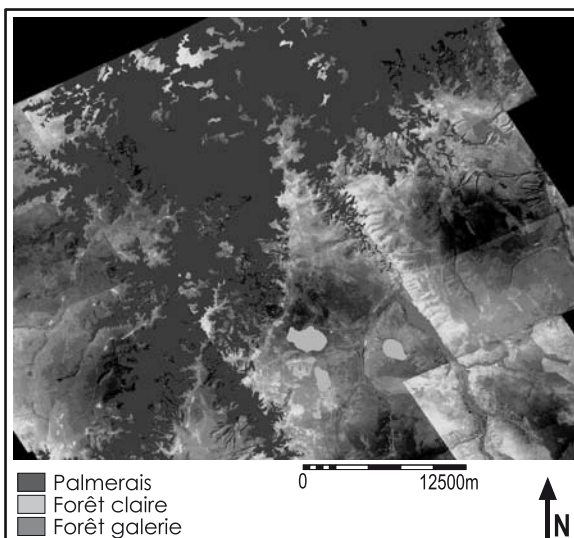


Figure 4. Digitised Corona mosaic

images visualise the “tree vegetation”: value “1” was assigned to the vegetation classes “palmerais”, “forêt galerie” and “forêt claire”. For the multi-spectral images these categories correspond with the NDVI-classes NDVI4 up to and including NDVI7 (all parts with NDVI-values over 0.4). On the Corona image all digitised parts were visualised.

Combining these binary images results in multi-temporal colour composites. To illustrate the procedure, three images taken in the dry season were compared (Figure 5). This way seasonal variation should be eliminated.

The binary ‘vegetation’ categories, as defined above, on the Corona image of 1965, the SPOT scene of 1987 and the ASTER image taken in 2001, are combined in Figure 5. Corona is visualised in blue, SPOT in green and ASTER in red.

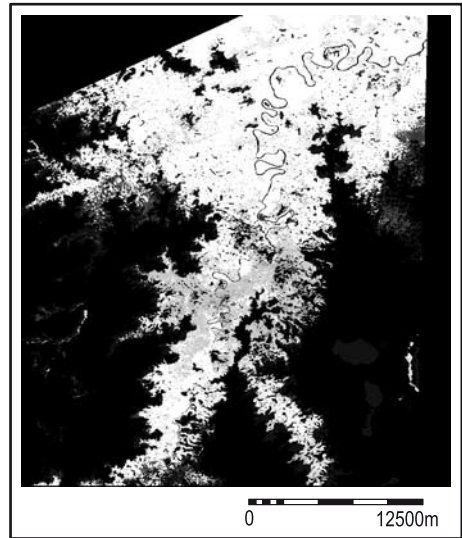


Figure 5. Multi-temporal colour composite

Interpretation of the multi-temporal colour composite

A multi-temporal colour composite is a very useful tool to compare different images. This way seasonal as well as temporal variation can be visualised. The example shows how this method can be used for different studies.

The colour composite in Figure 5 allows a quick visual interpretation of the vegetation dynamics in the study area over a period of 36 years. Together with the statistics (table 2), which are derived from the composite, following conclusions can be drawn.

The considerable amount of blue on the image, which stands for vegetation that has disappeared since 1965, is the result of the high geometric inaccuracy of the Corona and of the fact that digitised vegetation categories were compared with NDVI-classified images.

The cyan coloured part in the central area of the image stands for vegetation that was present on the image of 1965 and on the image of 1987, but not on the most recent ASTER image. This apparent vegetation degradation is caused by a haze on the central part of the ASTER image (Figure 3) and is no indication of the disappearance of valuable vegetation.

There is a considerable white part visible on the composite. This means that vegetation has been present on all three images, since white is the combination of blue, green and red.

These three points lead to a remarkable conclusion. The vegetation in the study area has not degraded in a significant way since 1965, in spite of the enormous population growth.

Classroom application

This study illustrates how a useful application of using remote sensing for interpretation and analysis can be done in class. With experiments like this, students can

be shown how new information can be created from existing imagery. Nevertheless detailed preparation of the imagery and software is necessary. The different working steps have to be carefully explained and illustrated.

This case is on a quite advanced level of study, but parts of it could be used to illustrate how remote sensing scientists work. For example, students can digitise an image such as the vegetation on the Corona image. This way they learn how to digitise and how to interpret a satellite image or students can make a multi-temporal colour composite using given binary images. In this way students learn actively how to work with the colour cube, the software and the interpretation of the resulting image. Many other parts of the study can also serve as an example.

Conclusion

Education in remote sensing is becoming gradually more important, since it is a widely used science with lots of applications. Therefore geography education should teach students the elementary use of remote sensing. As in many other subjects, the relevance of the study object has to be shown in order to motivate students for the matter. Examples, based on realistic cases and exercises, are one of the most efficient ways to draw students' sincere attention. Therefore an example of how to work with remote sensing imagery and software was written out in this paper. Hopefully it can inspire others to use satellite interpretation exercises in their class practice.

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PART TWO

Professional Development and Geography

Developing Undergraduate GIS Study units – The Experience of Malta

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Abstract

The GIS Laboratory of the University of Malta was set up in 1996 and has since then provided academic support to a number of departments within the University on the concepts and application of Geographic Information Systems. The objectives of this chapter are to (a) identify key elements of an introductory undergraduate GIS study-unit; (b) identify the problems of teaching GIS at undergraduate level in various disciplines; and (c) discuss the role of student self-learning in the application of GIS. This chapter will use the experience gained at the University of Malta and the multi-disciplinary approaches to teaching GIS.

Key words: GIS, undergraduate level, geospatial skills

Introduction

The process of developing undergraduate GIS courses is made up of a number of stages. This paper aims at (i) identifying key elements of an introductory GIS study-unit (ii) identifying the problems of teaching GIS at undergraduate levels to various discipline (iii) discussing the importance of student self-learning in the application of GIS.

The University of Malta is the highest teaching institution of the State. The Geography Division is part of a multidisciplinary institute for social science and arts subjects. The GIS Laboratory has been linked primarily to the Geography Division since the coordinator forms part of the Geography staff compliment.

The University of Malta has since 1996, supported the setting up of a GIS Laboratory with the assistance of the Environment Systems Research Institute (ESRI). Since its opening the Lab has provided GIS study-units to a number of departments. Originally starting with Computer Science and Geography, the Lab has expanded its teaching to other departments such as Archaeology, Biology, Engineering, Architecture and Education. Apart from teaching, the Lab also supports research for local academics and student projects.

The results so far have been encouraging. In 2004, 20 per cent of the geography degree graduates were directly employed on GIS for agriculture, transport and mineral resource management. The experience gained over the past eight years of tutoring, research and administration will be presented in this paper. It is hoped that the discussion and conclusions will help and encourage other institutions to introduce GIS in their curriculum

Key elements of an introductory study-unit

The introductory course to GIS is a crucial point in the student's undergraduate years. Amongst the factors that will influence his/her career decision whether to become a GIS specialist or simply a casual user, is the understanding of the main concepts of a GI system. Today, there are a number of help tips on the Internet which point any newcomer to the teaching of GIS in the right direction and since GIS is a relatively new technology and the industry competition is very fierce a number of study aids are available. Setting the course structure however is only one element. Other factors come into play when preparing for the academic year.

a) Understanding your audience

With today's varying degree of **computer skills** in class, it is very difficult to gauge your audience's adaptability to understanding and using a GIS. Most students outside the computer and IT studies have background knowledge of Office tools and some basic computing. Having prepared courses for Geography, Archaeology and Biology students, it is important to understand in the early days of your study-unit the computer literacy of your class. Ideally students should have a basic knowledge of databases (tables) and information systems or have been exposed to software such as Microsoft Access, Microsoft Excel and Computer-Aided Design (CAD) to understand the structure of a GIS.

In the case of non-geography classes the **spatial relationships** must be explained at length before any attempts are made at explaining the concepts of a GIS. It might be useful at this stage to explain the importance of geography in certain fields of study. Non-geography classes have difficulties to understand the applicability of GI systems because of a lack of understanding about spatial relationships and the value of spatial data.

With today's **multi-disciplinary** approach to University studies, it is becoming very difficult to have homogenous groups of students. There will be varying degrees of computer skills and different understanding of what spatial relationships are. The next step is to try and identify the basic concepts and components of a GIS for students to start using such systems.

b) Main components of an introductory GIS study-unit

During the course of one semester of an undergraduate course there is an opportunity for introducing both the theoretical elements of a GIS and the practical sessions on some software. Over the years, the course structure of the introductory study-unit at the University of Malta has changed to reflect the needs of the students. Originally, the study-unit covered aspects of history and GIS development, map projections, image processing, data collection and storage, applications and digital terrain models. Over time, this structure was simplified to allow students more time to use the software and work on real-world applications of GIS.

The most important elements for direct tutoring in class have now been rationalized to four main topics. There is a good review of these concepts in introductory textbooks such as Heywood (2002), Clarke (2002) and the GIS Dictionary published

by Wiley (McDonnell and Kemp, 1995). These elements are structured in a way to cover half of the semester and include:

- *introducing GIS* – definitions, history and development
- *data concepts* – data types, sources and issues of data quality
- *GIS functionality* – data input, structure, management, analysis and visualization
- *Implementation* – methods and applications

Refining these lecture components is an on-going process. With increasing computer literacy and accessibility to internet, some of these topics over time become redundant. However, the four main components listed in this section are deemed the most relevant to help the student grasp the basic theory of GIS, understand what the system can do and apply it more efficiently.

c) Coordination of lectures and practical sessions

Depending on the resources and time available for the study of GIS, it is possible to divide the introductory course into theory and practical sessions. At the University of Malta a two ECTS study-unit covers 14 weeks of 2 hour sessions per week. This gives a total of 28 contact hours with the students and 40 hours of related study ‘at home’. Within this framework the first part of the study-unit is dedicated to the theory where the students get an introduction on the main components of a GIS, in addition to demonstrations of how GIS is applied. During this period the students are required to review literature on the subject and think of a mini-project applying GIS.

During the second part of the study unit the students prepare a project proposal in which they identify a research question, the study area and the data requirements. These projects are generally carried out between groups of 2–5 students, thus introducing the students to team work.

Once the projects are discussed and approved, the students collect the information from the field (when necessary) and input the data. At the GIS lab, the students have the options of using scanners or digitizing tablets for input. Once the system is populated with information, the students start the process of spatial analysis. The map outputs and a report are submitted for assessment at the end of the semester.

d) Use of teaching aids for higher education

There are a number of useful teaching aids for GIS study-units in higher education. The fact that GIS is a relatively young technology and most advances in the system have been recorded and are available on internet is probably the most useful aid. Conference papers, journal articles and now even books are available for download (see for example Longley *et al.*, 1991).

Another invaluable resource is the ESRI Virtual Campus which is an online training site for using GIS (<http://campus.esri.com/index.cfm?CFID=5078887&CFTOKEN=59283972>). In this case however the University would require the use of ArcGIS software, and provide access to its students for use of the training sessions online. Alternatively students might take the initiative and pay directly for some of the courses on offer. This site is particularly useful for students who do not find training available locally. Also this website provides a Library dedicated to GIS literature.

Some textbooks also provide self-learning tools with software demos and case studies. Students should be encouraged to invest in one of these textbooks to get as much hands-on experience as possible. Specific textbooks relate to particular software and even though the technology changes relatively quickly and such books might become dated, it is always useful for students to undergo individual training on the use of GIS (see for example Ormsby *et al.* 2004).

Teaching undergraduate GIS to various disciplines

The major problem of teaching GIS to various disciplines is the instructor's disposition to the different applications of GIS. Despite students having a fixed structure to follow at the beginning of the course, some of the more professional degree courses have industry specific requirements which the instructor should be aware of. In the case of Architecture and Education, expectations by the industry must be understood before undertaking any teaching.

Fortunately for most disciplines there are both textbooks and exercises which can help the tutor to use industry specific case studies (see for example Malone *et al.*, 2002).

The role of the student

The student has a very important role to play in the delivery and success of GIS study-units. Mostly it is the adaptability to use computer software which depends on the student's background subjects in secondary and post-secondary education.

Students should understand the importance of hands-on experience to learn about GIS. Most students today are keen at using the software from an early stage of the study unit. It is important however that during the first tutorials the tutor is ensuring students understand the processes that are going on in using the software. It is also important for the student to take an interest in seeing how systems are operated in the real world, and in the case of Malta this is possible with site visits to particular industries which have applied GIS in their work processes.

Conclusions

This paper aimed at identifying the opportunities and problems of developing undergraduate study units about GIS. It focused on the course development and problems of multi-disciplinary teaching but also on student aids and the importance of self-learning. The demand for geospatial skills is growing worldwide (see Gewin, 2004) with more scientist required to understand the processes of integrating use of GIS with spatial phenomenon. This on its own should be an incentive for higher education to invest in the teaching of GIS from undergraduate levels.

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Geography programs and Bologna

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Abstract

Up to now modifications of the Lisbon University geographical curriculum has been the consequence of job opportunities for the growth and transformation of geography. Nowadays Bologna represents an important external push for modification, which we evaluate in three main dimensions: increasing competitiveness between universities, employability versus specialization after first cycle and competences. An analysis of course proposals in Geography shows that the main goals are still stated in terms of scientific knowledge.

Key words: Geography, curriculum, competencies

Introduction

The 1970s and 1980s have seen a big expansion in Geography at Portuguese universities. Between 1970 and 2004 the number of public universities offering degrees in Geography increased from 2 to 6, plus 1 private institution, the number of Geography students at the University of Lisbon has multiplied by 4 (from 150 to 600) and the teaching staff three-fold.

The change was not strictly only quantitative since it also included diversification of the structure of the programs, as reported by Amaral (1980) and Barata Salgueiro (2003). The successive reforms at University of Lisbon, especially the introduction of new themes and perspectives, have profited from the international contacts of staff along with an increasing demand for geographers in the labour market, which has been suffering an important transformation, as Claudino *et al.* (1991) have shown. As a matter of fact, in the last 30 years, the traditional job for geography graduates, the teaching in high school, has declined quite a bit and new opportunities have arisen in planning, in the management and protection of natural resources, in civil protection, in tourism, and so on.

Today an external component, represented by the so-called Bologna process is very important and adds new dimensions to the restructure discussions. My intent is thus to bring some insights on this matter.

Competition and social relevance

The main goal of the Bologna Declaration is the building of a European higher education space which favours the mobility and employability of European citizens and is internationally highly competitive. A large proportion of the documents already produced deal with programs comparability in order to facilitate student mobility, but there are

also economic reasons, although these may perhaps be less explicit. The decrease in the number of years needed to complete the first degree cycle aims to save public investment and family expenses with the formation and training of the students.

One major consequence of mobility expansion is an increase in competitiveness and consequently differentiation on the rank attained by each university and department. Possibly we will see a relative standardization of the first degree cycle, offered in many places, although certain institutions can already be differentiated by their higher quality and a more limited and more competitive offer as soon as we progress to the higher degrees. The best diplomas, the most desired ones are only offered by a relatively small number of universities, the more central ones, the more attractive, those whose quality is ranked higher. Having more candidates, they can demand higher tuition fees, making more money they may offer better human and material resources. They will also help to propel its city to a better position in the system of cities.

In this context universities, departments and even individual courses and tutors will have to develop pro-active strategies, benchmarking practices, careful selection of strategic bets in terms of courses offered, learning experiences, teacher's profiles in order to attract students and reinforce their prestige and quality.

In this competitive environment, Portugal's main weakness comes from its geographical position and language, but the country also has some advantages tied to the high level of research and prestige in some areas, good climate and environmental quality, the advantageous level of prices and good relationships with southern countries, especially Brazil and some African countries.

To overcome the threats I would like to discuss the follow propositions:

- The ability to offer programs not only for the Portuguese market but also which can interest other Europeans too. Furthermore we should consider the important role that Portugal can have in the qualification of African and Brazilian human resources.
- Besides its contribution to research development and knowledge diffusion, universities have the social responsibility of future citizen's education and training. Thus in the curriculum organization it seems important to consider subjects with social relevance, like citizenship and environmental questions, housing, planning at different scales, development and community action, to enhance geography's contribution to the understanding and solution of the problems that affect our societies and are more able to interest youth, and have an immediate relationship with job opportunities and people's daily lives.
- Another line for exploitation deals with the possibility of organising second cycle programs in partnership with prestigious foreign institutions and the introduction of English in some courses, both in the lessons and in student assignments.

Employability and competences

The Bologna's declaration pretends that "the first cycle diploma will be relevant to the European labour market as an appropriate level of qualification" which raises confusion between 'professionalisation' and employability. Graduates employability and the competences they should have depend on their professional activity and its

requirements. In the faculties of Arts and Social Sciences employability is associated with a generalist formation (made of a set of transferable competences and knowledge) useful for an enlarged and diversified number of activities and cannot be compared with a professional specialization. This can only be obtained with a second cycle program, at least with some depth of specialisation. The general and open features of the first cycle, as we see it, should not prevent some specific orientations for those students that already might have a specific professional activity in mind.

Since the 1970s the transformation of the Geography program at the University of Lisbon represents an effort to give the students a more solid professional preparation, specifically in the field of planning. This has been done through the reinforcement of the methodological component, the increase in the specialization possibilities and a better articulation with current professional practice. The concern with methodological questions can be seen in the introduction of courses on statistics, quantitative methods, analytical tools, graphic presentations, cartography, GIS techniques and also epistemology courses.

In Lisbon, the actual model of curriculum offers five specializations and it has for the very first time some obligatory specific courses along with optional ones. These can either reinforce the specialization or oppose it, if the student prefers a more generalist formation. Thus, the program contains a common part for all students with 104 ECTS, distributed by Human Geography (36 ECTS), Physical Geography (36 ECTS), Methods (32 ECTS) and then the specializations. For instance, the students that choose Urban Planning (Urbanism) have to do 91 credits in specific courses like Urban Design, Physical and Social Environments, Urban Problems, Planning Tools, plus 45 credits in optional courses.

The bridge with professional practice has been tested by means of training periods, nevertheless only for the students enrolled in education is the training a credited unit. For the rest of the students we use the 4th year course to bring the students closer to some activities by means of study visits or longer stays in appropriate departments and institutions and using this contact as case study for the assignment they have to do to complete the course. This report can have either a more practical (problem solving) or more theoretical orientation. The students enjoy this experience as we can see in the evaluation report (Barata Salgueiro *et al*, 2003), so it deserves more development and expansion.

Bologna also implies a different way to think about teaching and learning, almost a new paradigm which contains a different type of academic and training education, academic formation in a wider basis, focus on competence acquisition, and learning upon teaching. There is no doubt that the focus on these two last features will oblige us to think more deeply about the course structure and organization as well as the teaching methods in a completely different way than we use to. Competences will play a more central role in the way we think about teaching at the university (Cachinho, 2005). Despite the great number of our colleagues interested in these questions the discussion in geography departments is still in their infancy.

There is a good convergence between learning outcomes and competences. In the Tuning Project (Gonzalez and Wagenaar, 2003) learning outcomes are expressed in

terms of competences, they define what the student knows and is able to do at the end of his learning period, and are evaluated by performance levels. Thus they specify the minimum conditions to receive the credits. As we all know, there are generic competences which represent a dynamic combination of features, capabilities and aptitudes and subject specific competences characteristic of each field of study.

A study of 12 course proposals for the first degree cycle in Geography at the University of Lisbon, Oporto and Coimbra by teachers in the upper middle part of their career shows that the main goals were still stated in terms of scientific knowledge, despite their discourse. Student evaluation is divided between a final exam and the production of a project normally developed within a group with fieldwork. However the discussion of texts, of political objectives and tools, of solutions for the problems analyzed already show a new orientation.

Concerning the generic competences differences are not big, although in Portugal they appear to be more connected to the specific knowledge mainly because of the material I used as source of information. Everyone agree on the need to be able to use ICT to communicate fluently by written, oral and visual means but it does not seem to be necessary to enumerate these competences in the context of a program proposal

For the specific geographic competences (Table 1) the Portuguese are more worried about action, with the application of knowledge in practice than with theoretical models, more interested with the concepts, the techniques of data collection, treatment and analysis, with the knowledge of different theoretical and methodological approaches.

Table 1. Specific Competences in Geography

At international level ¹	Portuguese teachers ²
Understand and interpret landscapes, the meaning of spatial relationships and build spatial models at different scales;	Understand the interdependence of social actors, of regions and locations; discuss the spatial policies and the process of territorial management;
Understand different forms of spatial organization, the diversity and interdependence of regions, places and locations; the processes that lead to the spatial segregation, and the nature of change;	Identify patterns and explain the differences in spatial distributions; understand development disparities; interpret the process of change and its nature;
Collect, compare, analyze and present geographical information; use diverse techniques and approaches in Geography;	Appropriate use of geographical methods for collection and analyze geographic information; knowledge of different approaches in the explanation of geographical phenomenon;
Apply and understand geographical concepts; communicate geographical ideas, principles and theories by written, oral and visual means;	understanding of geographical concepts; apply geographical knowledge to identify problems and look for solutions, make proposals;

Sources: 1 – Internet sites of Herodot and EUnet networks, Tuning Program (EU), University of Liege and United Kingdom universities;

2 – Programs for courses in Geography in Lisbon, Oporto and Coimbra

Even though this only is a short and preliminary analysis, the collection of competences is very impressive of the challenges implied in the preparation of a plan of studies and organization of a learning process in this basis.

Conclusion

Taking in account the importance Bologna has in the restructuring of higher education across Europe, I would like to conclude with three questions:

1. How can each course contribute to the development of what competences?
2. How should we transform the process of learning and teaching in the context of a university that is more student-oriented, and more focused on competence acquisition?
3. How to start the discussion on the relationships between competences and knowledge?

All this leads to the need for discussing new methods of teaching, to exchange experiences and diffuse good practices and pedagogical experiences. So I would like to challenge the formation of a network for:

- exchanging information on the duration and organization of geography programs across European universities;
- opening the way to creating international diplomas coming from the partnership of several universities, eventually looking for some EU support to ensure their effectiveness and quality.

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The added value of international students groups in geography classrooms

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Abstract

The department of Human Geography and Planning has been participating in international exchange of students from the beginning of the Erasmus programmes for higher education in the 1980s. In 2002 we stopped organising special modules for international students and instead we integrated modules in English in our new bachelor program in Human Geography and Planning. Overall, the experiences of teachers and students with these ‘multinational or multicultural classrooms’ are positive. Apart from some language problems, the students appreciate the international sphere in the classroom. The added value of the presence of foreign students is highest when teachers explicitly make use of the multiperspectivity (in the minds of the students) in the design of their courses.

Key words: Geography, education, student exchange, international classroom

Introduction

Foreign students participate in an increasing number of modules in the bachelor and master programmes at the Department of Human Geography and Planning in Utrecht. It is expected that within a few years English will have become the dominant language in our Masters programmes. The multinational classroom, with students from different linguistic, national and academic backgrounds, offers new challenges and opportunities. In this paper we will discuss the experiences of teachers and students in some of our modules taught in English. How do we benefit from these international classrooms in our modules?

In the final section of this paper, we want to discuss the larger issues involved in teaching and learning in multinational or multicultural classes. What about the cultural bias of the home institution in terms of academic style and approach to the discipline (geography)? How can variety in linguistic skills, academic backgrounds, and in perceptions of the subject be dealt with? And most importantly: how can the multiperspectivity of an international student group be used as ‘a strength’ in academic courses? Inspired by the cultural turn in geography and in the social sciences at large (see for example: Crang 1998), many teachers will use issues of representation and a multi-perspective approach in the design of their courses and reading lists. A multicultural and multinational classroom will hugely enlarge the possibilities of using variety of perspectives and representations as a pedagogical tool and learning strategy.

Background of international students in the geography course in Utrecht

Since the start of the Erasmus programme in the second half of the 1980s, the department of Human Geography and Planning has participated in the exchange of students. Each year about 50 to 60 students visit our department for one or two semesters. During the academic year 2004–2005, the Faculty of Geosciences hosted 74 international students, the majority of whom taking modules in Human Geography and/or Planning. Erasmus students come from all over Europe (numbers for 2004–2005): from Southern Europe (15 from Spain, 4 from Greece, 4 from Italy, 2 from Portugal), from North-Western Europe (5 from the UK, 6 from Denmark, 4 from Sweden, 3 from Finland, 1 from Norway), from neighbouring states (2 from Belgium, 4 from Germany) and also increasingly from Central Europe (5 from Poland, 2 from the Czech Republic). The number of students coming from outside Europe, through various exchange programmes, has been increasing and in 2004–2005 4 students from the USA and Canada and 7 from Australia studied at our Faculty. Students from non-Western countries until now only form a very small minority and rather an exception.

The start of our Erasmus program in the 1980s led to the organisation of a separate one-semester course in English. The programme was tailor-made for foreign students, with its own starting moment in January and with modules such as ‘Geography of the Netherlands’. A lot of students came to Utrecht to study GIS. The separate ‘international programme’ was designed because there were too many obstacles for integrating courses in English in the regular programme. Also not all the teachers were prepared for teaching in English. This international programme has successfully existed for about 15 years. The good reputation of the department and the programme caused the relatively large number of guest students. Our European students association (EGEA) played (and still does play) an important role in the introduction period for foreign students. The students active in this association visit several international meetings and are real ambassadors of our department.

Some years ago the situation changed, more and more people were convinced that we could benefit from the integration of the international students in our regular human geography and planning course. It was felt that it would reduce the workload of the teachers and, moreover, Dutch and international students would get a better opportunity to meet each other and study together. The transition to a new bachelor-master structure starting in 2002 facilitated the full integration of the regular and the international programmes. In the study year 2004–2005 international students had a choice of 19 modules in English (14 bachelor modules and 5 master modules). Students take part in four modules per semester and foreign bachelor students are allowed to choose one master module per semester as long as they meet the relevant entry requirements.

The teachers’ perspectives

While preparing this paper, we organised an evaluation panel with six colleagues who have been teaching in courses with multinational and multicultural student groups. They were involved in four bachelor modules (Regions in Development; Cultural Geography of the Netherlands; European integration; Introduction to Geographical Information Systems) and two master modules (Geography and Citizenship;

Methods & Techniques for International Development Studies). The teachers have different approaches to how they take into account the international character of the student group in the design of their modules. In three modules the multi-perspective nature of the international student group is explicitly used. These courses build on the input of students from their own national and cultural perspectives, in relation to themes or problems addressed in the course. If these courses had only be open to Dutch students, the teaching and learning strategies – in terms of using students' representations and perspectives – would have been different.

The module on European Integration uses the background of the students in two ways (Van der Vaart, Béneker and Paul 2005). The course starts with some lectures and role-plays; these role-plays are used to get an idea of the different political cultures in the home countries of the students. It is crucial to be aware of these political cultures when studying decision-making processes in the European Union. The second half of the course takes the form of project work where multinational student groups have to represent a region in the EU. If someone in a group comes from the region of study (and for example can read Swedish, Spanish or Hungarian), this may have considerable added value. The module on Cultural geography of the Netherlands benefits from the presence of both Dutch students knowing a lot about the Netherlands and foreign students with a completely different way of looking at our country, its image and identities. The participation of students from other disciplines (not every foreign student is a human geography student) gives an extra dimension to the multiperspectivity. In the module on Geography and Citizenship students have to use their personal ideas about their own citizenship and their experience with citizenship education in classroom discussions. Later on in the course they have to organise a seminar in multinational groups. The groups are relatively free in the choice of a seminar topic and are able to use the backgrounds of the students for making all kind of comparisons. For example, in 2004 one group chose to compare the citizenship debate in Hungary with the debate in the Netherlands. In the other modules, teachers stimulate students to work together in combined groups but leave the decision to the students. They suggest the Dutch should speak English all the time, including during coffee breaks. Often these modules start with the students introducing themselves.

The teachers from these six course modules made the following remarks concerning the advantages and disadvantages of working with multinational student groups. Most of the time they had the same opinion. One important benefit of these courses, in the eyes of the teachers, is the international atmosphere in the classroom. They refer to an increased interest of students in each other and the often open atmosphere in which information is being exchanged. The foreign students often are an example for Dutch students because they are usually very motivated. The students coming from other academic cultures like the openness and accessibility of the Dutch teachers, according to the teachers in the evaluation panel.

Most teachers see language as a point of concern. One teacher even feels that it is not possible to go into depth during discussion sessions because of the limited English language skills of most of the students and the teacher. Another teacher refers to problems with regard to writing papers in English and to the big differences between

students in their language skills. The range of differences between students is larger than in a normal Dutch course group. Many Italian students, for example, have no previous experience whatsoever in writing course papers and essays, whereas many British students have been doing this in most of their home courses. One teacher observed some differences between Dutch students, who were in his opinion fairly good in terms of their academic skills, and foreign students who were better in the application of software and techniques for data analysis. But, he said, as soon as these students work together things work out very well.

Student evaluations

Student evaluations of the modules on European Integration and Geography and Citizenship give us a better idea of how students value working in multinational student groups. 38 students filled in the evaluation form of the European Integration module (in 2004). Their reaction to the statement ‘I have learned a lot from working with students from other countries’ was very positive. Over 75% of the students agreed with this statement (agreed or agreed ‘very much’). Students were asked to sketch the positive aspects of the international character of the course. They mention the fact that the course was in English (22 students), that they were dealing with different points of view (16 students) and that they met and worked with foreign students (10 students). The disadvantages were the lack of English language skills of some students (3 students) and some teachers (2 students) and the problems of making yourself clear in English (5 students), so that (according to 1 student) often the same students take the lead in discussions. Critical comments of the students (the majority who filled in the form were Dutch students) focused on problems with language. The evaluation shows that they see the struggle with language as an advantage (good training) rather than as a disadvantage (22 versus 11 students). The guest students are more used to English as a working language (although they do not necessarily speak it better than the Dutch students) and hardly refer to it as a problem or an advantage.

The students who participated in the Geography and Citizenship module were also positive about the international character of the course. One student wrote: “The topic was interesting especially because you were working with students from other nationalities”. They were especially positive about the multi-national classroom discussions about citizenship issues. Almost all students mentioned one specific part of the course as a positive experience: peer review of the individual course papers. Towards the end of the course all students had to comment on and discuss the papers from fellow students. The topics of the papers were chosen by the students but had to fit well in the conceptual and theoretical frameworks of the module. They found the paper review a great idea because it gave them different perspectives and an idea of comparative quality and style of students work, also internationally. They were very surprised by the different conventions in various countries on how to write a paper. On the other hand they agreed completely on which were the best papers. One Polish student gave the following comment: “The most strange for me was the public evaluation of the individual papers but while reading other peoples papers I learned almost as much as when writing my own”.

Discussion

In spite of all sorts of practical difficulties, both students and staff are predominantly positive about working in and with international student groups. Students like the extra dimension of making new friends from other countries, practicing their English, hearing about perspectives from and academic practices in other countries. For both teachers and (exchange) students, the evident bias in (i.e. Dutch) academic style may pose a problem. Dutch courses are generally characterised by active learning approaches, rather strict attendance rules, a climate open to discussion and participation, and a specific (highly structured) convention for coursework and essay writing.

It is a matter of debate what elements of this profile should be negotiable and changeable when the student group is international. We believe that it would not be wise to lean towards something like an invented 'European average style' in attendance, participation, or learning and teaching approaches. This would be the type of homogenisation that many fear as a result of the Bologna process and the construction of a "European Higher Education and Research Space" (see, for example: Kwiek 2004; Trondal 2002). It is important for guest students to become involved in a typically Dutch academic experience; the possible 'difference' from their home experiences is one of the assets of studying abroad. Strictly applying 'Dutch' rules for essay writing or for doing presentations, however, specified in detailed course descriptions, would probably be counterproductive. It is interesting for Dutch students to experience how their colleagues in other countries have learned to build up an argument, use references, or structure an essay or presentation and vice versa. Variety is a gain here and the common basic rules should be modest.

Linguistic problems are, to a large extent, practical problems and very likely only temporal ones. Communication is the basis of academic learning and therefore sufficient language skills (i.e. in English) are non-negotiable, for both students and teachers.

Multiperspective features are often a consideration in the design of courses, and a multicultural and multinational students group gives an extra dimension to the multi-perspective approach, as a learning tool and an element of motivation.

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International collaboration in distance education for geography students – experience of Vilnius University

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Abstract

The aim of the paper is to present experience of Vilnius University in using distance education methods for teaching bachelor students. In general ordinary old-fashioned ways of teaching still prevails in Department of General Geography, when main source of knowledge for students is ordinary lectures. However during the period 1999–2003 our department was involved in Baltic Sea region Study programme and common courses for students in various Baltic Sea countries were organised. Main methods of teaching involved tools usually used in distance education – audio-lectures, Internet and WebCT. Students in different countries had to work together, prepare comparative projects and present them. There was a lot of new and interesting experience for students, teachers and tutors, which will be discussed in the article. Beside some positive experience there were problems, which also are to be mentioned in order to have objective opinion on such way of teaching.

Key words: teaching geography, distance education

Introduction

The aim of the paper is to present the experiences of Vilnius University in using distance education methods for teaching bachelors-level students. Ordinary, old-fashioned ways of teaching still prevails in the Department of General Geography, where the main source of teaching for students is ordinary lectures. However during the period 1999–2003 our department was involved in the Baltic Sea Region Study programme and common courses for students in various Baltic Sea countries were organised. The main methods of teaching involved tools usually used in distance education – audio-lectures, the Internet and WebCT, a virtual learning environment. Students in different countries had to work together, prepare comparative projects and present them. There was a lot of new and interesting experience for students, teachers and tutors, which will be discussed in the article. Besides some positive experience there were problems, which also are to be mentioned in order to have objective opinion on this approach to teaching.

Geography in Lithuania and at Vilnius University

The general situation in geography teaching at university level is not very prosperous in Lithuania. There are only four geographical departments in three universities:

Department of General Geography in Vilnius University, Departments of Geography and in Geography in Vilnius Pedagogical University and Department of Social

Geography in Klaipeda University. There are also very few departments of related subjects in the same universities. None of the other higher education institutions have any geographical or even geography-related departments and actually there are no geographical disciplines in their study programmes. Vilnius University has the oldest traditions in geography studies and at present it holds the strongest position in Lithuania. Table 1 illustrates the situation in Geography teaching at Vilnius University.

The methods of teaching in the whole of Lithuanian higher education including Vilnius University are very traditional – old fashioned lecturing dominates. Other teaching methods involve seminars, practicals, field practice and self-learning (particularly when preparing project work) but their significance is less important. The main reasons why traditional lectures dominate are related to the lack of possibilities for self-learning. Students don't have sufficient reading materials, there are for example very few text books in Lithuanian, which is related to the very low demand. Readings in English are also not readily available and on the other hand very few students can read in English adequately enough. Modern teaching equipment like multimedia projectors have only just been introduced in recent years, but at present they are used just occasionally. It seems that this situation will not change radically in the near future because above-mentioned reasons will not disappear overnight.

Table 1. Personal structure of Department of General Geography of Vilnius University

Level	Number of persons	Remarks
Bachelor studies	110	Every year 30 students enter to the department and approximately 25 receive bachelor diploma. It is 4-year studies.
Postgraduate (Masters)	30	Up to 18 students enter the master programme and approximately 12 receive master degree.
Postgraduate (PhD)	6	Every year one or two persons enter to the postgraduate studies, which last usually 4 years. VU is the only institution with the right to prepare PhD students in geography in Lithuania.
Staff	18	Stable number. Assistant professors prevail in the teaching personnel.

However our department started to take part in the project raised by colleagues from Turku University (Finland) in 1999. The project was organised as a part of the Baltic Sea Region Studies Programme and involved Universities from Finland, Estonia, Latvia and Lithuania. The programme mainly involved the international exchange of students between Baltic Sea countries. The main idea of this project was to employ distant education techniques and methods for international collaboration in preparing geography students through international studies via virtual reality without physical journeys. The Internet and audio conferencing were the main tools of learning. Finally two different disciplines of human geography were designed and have been completed several times during the period between 1999 and 2004. This was a completely different experience both for teachers and students. The main idea of such learning, its advantages and minuses will be presented in the next section.

Designing and teaching the distance education courses in geography

The idea of using modern techniques for exchanging information is old enough as well as that of distance education, which permits learners to receive information and knowledge without known limits of the usual forms of teaching. So it isn't strange that this type of education is most popular among the working population, who have no possibilities to attend regular lectures, this is effectively tuition by correspondence. In this case the decision was to employ technology for achieving different tasks. The approach meant more to break the constraints of space rather than these of time. It was decided to try to develop international collaboration, to exchange experience and learning without expensive travelling costs.

The next step was to find "hot" topics that would be interesting for all parties and of course these courses had to fit to the whole curriculum of bachelor studies in each of the different universities. Finally the development of a course in urban geography "Transformation of Urban Space" was chosen to be the first to be prepared. Later another course in regional geography "Region Development and Region Policy" was produced.

Organisational aspects involved team meetings in Finland where all participating persons from each of the universities involved were presented with the idea and main principles of distant learning and audio conferencing. Some practice of audio lecturing was given for tutors. Also the course content was discussed and established (agreements concerning main topics that were to be studied were made). However later experience has shown that these meetings were not critical, particularly if there is one leading department, whose experts prepare the course content and takes all the organisational responsibilities and the other university partners accept this content and the design of the course. On the other hand collaboration happens more smoothly if all the persons involved know each other through face-to-face meetings and not just virtually.

Design of the course was prepared both by the experts of distance education and geographers. Though the main initiators of the course were distance education centres, later their involvement in course development was not so dominant and the role of the geographers increased.

Departments of distance education in the universities were responsible for the technical aspects of the project – they provided the equipment necessary for audio conferencing and web based tools. The general ideology of the course was determined by the ideas and theories then dominating in distance education. Audioconferencing was seen as a very good opportunity, because of five reasons mentioned by Michael G. Moor: "Audio conferencing is a learner – centred, relatively inexpensive, robust and flexible medium, that can be well integrated with other media in a distance education program" (Moore, 1994). It was perceived then that adoption of high cost delivery systems was giving way to a new trend towards an appropriate selection of a delivery systems based on course content, course design and intended audience. (Hardy and Olicott, 1995). So it was decided that audio conferencing should just be an additional learning tool, while the main accent was related to active self-education and communication via the Internet. Later experiences showed that the proportion of audio lectures could have been reduced even further.

The learning process

The learning system of the course was rather complicated and involved many types of learning processes. The main processes involved were:

- Tutoring (not lecturing, just helping students);
- Audio meetings;
- Independent learning;
- Internet based learning.
- Group work (preparing common projects)

Every University formed a group of students wishing to learn the subject. It of course was not a compulsory discipline and a good knowledge of English was a necessity. Hence the formation of the group of 6–12 persons, the recommended student group size in every university, was not an easy task bearing in mind the rather small total number of students in our department.

Promotion of the idea of the course among the students played an important role and this was one of the tasks of a **tutor**. Among the other tasks of the tutor were, to lead conversation during audio conferences, assist students with their assignments, to present study material, to explain Internet-based learning environment but not to give lectures. Notwithstanding that tutor doesn't have to give lectures their role remained very important and active, requiring a lot of time. Though there were no lectures planned, in reality meetings with the student group took place every second week and sometimes they held very strong resemblance to the usual lectures or seminars. Actually good tutoring was essential in this case and the tutor involved needed to be a well motivated person interested in new technology like the Internet and the subject, urban geography in this case.

Independent learning was the main way of that the students gained knowledge. It was based on study materials, which were provided for the students. Generally these involved copied articles, relevant chapters from different issues of full textbooks, which played the role as a main source of information for students. In our case learning material were collected by experts from the leading university and sent to the tutor via mail or sometimes by fax. Experience has shown that in some more complicated cases, like controversial, more difficult topics, lecturing would have helped students to better understand the subject. So lecturing could also be involved in this learning system. Anyway, the course requires independent work from students collecting additional information on the course subjects and especially preparing project work. The given material concentrated on general theory, main trends in the urban or regional geography, so students had to find information concerning their own city or region to supplement it.

The number of **audio meetings** varied from 7 in 1999 to 4 in 2004. Firstly audio conferences used to take place every two weeks, lasting two academic hours, but it became evident that the attention needed for this type of learning was too great. Two hours of listening to even very interesting topics in English was too difficult for the students and in general audio conferences became more a tool for discussion and presentation than for delivering lectures. At the beginning five audio meetings were devoted for lectures (including of course some discussion on related topic) and there were two for the presentation of projects prepared by different student groups. Finally there were only two short

audio lectures – one for presenting the general ideas of the topic and second for explaining some special cases, both were given by an expert on the subject. And the next two were devoted for presenting project work, which were to be placed on the Internet.

Internet based learning was organised by our colleagues from Turku University. Web course tools were used for communication between students, tutors and experts. All written material was presented there as well as useful links and other related information so every participant was able to use it and to give their remarks. WebCT also provided space for presenting project work. Students had to use the site several times each week to find out the tasks given by experts or answer questions given by other participants. The problems with Internet accessibility in Baltic countries as well as rather poor computer skills were the main difficulties at the beginning of the project.

There were two **assignments** to be made during the course. First of all local **groups** prepared project work concerning some local case, placed it on WebCT and presented it during the audio conference trying to compare different cities. Usually every student had specific tasks depending on their skills. Students had to collect information, make analyses, to write in English, to put the presentation on Internet and to present it during the audio conference. Then groups were formed from students from the different participating universities and they had to work together on some specific problem in the different cities. Such international collaboration was very interesting for students though the organisation of work was rather difficult. The number of students involved from the various countries differed considerably, as well as their skills and motivation so the results were very unpredictable and the quality of the project work was very different. Finally, after two years the idea of working in international groups was rejected purely because of these reasons.

Conclusion

When finalising the description of this experience it also should be mentioned that in general such ways of learning opens a lot of new opportunities for students and teachers. Students can obtain various skills in very different fields – understanding geographical subjects, developing communicational abilities, improving English, group work skills, and so on. Also in some cases it is an appropriate alternative to expensive international travel. On the other hand there were some organisational issues, for example it is rather difficult to include such subjects into the regular curriculum, because it depends on the will of many participants, finding finances for such activities and there is always some uncertainty concerning sustaining the activities. However notwithstanding some negative features every participant agreed that, in general, such methods of learning enrich the usual ways of learning very effectively. The experiences, which students and tutors obtained, helped everybody to improve their geographical knowledge and learning skills.

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The Role of the Geography Teachers' Association (Malta) in the Professional Development of Teachers

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Abstract

The Geography Teachers' Association (Malta) was set up in 2000 with the aim of promoting geography as an academic discipline and keeping teachers of geography up to date with developments in the subject. The Association has been trying to achieve these aims through the organisation of lectures and fieldworks and the publication of papers on geography and geography education. This paper will investigate teachers' perceptions on the role that the Geography Teachers' Association (Malta) plays in their professional development.

Key words: Geography education, Geography Teachers' Associations, professional development

Introduction

In Malta, the provision of educational and training courses for practising teachers has traditionally been regarded as being the responsibility of the employers of teachers, whether these are schools or local educational authorities. As the concept of professional development evolved to include a wider range of learning experiences, the spectrum of potential providers of continuing professional development experiences for teachers should have also widened. Despite this evolution, the potential contribution of teachers' associations to this aspect is often underestimated or even unrecognised. The aim of this paper is to investigate teachers' perceptions of the role of teachers' associations in their professional development focusing on the Geography Teachers' Association of Malta.

The Geography Teachers' Association (Malta)

The Geography Teachers' Association of Malta (hereafter GTA) was set up in the year 2000 with the aim of fostering the teaching of geography amongst all sectors of the population (GTA, 2000). Today the GTA has 72 members. It is perhaps not accidental that the GTA was set up in the year following the publication of a new National Minimum Curriculum in 1999 which directs that the number of geography lessons in secondary schools be reduced to one lesson per week throughout the five-year secondary course (Ministry of Education, 1999) and that the subjects of geography, social studies and history should be integrated into one curriculum subject under the name of environmental studies. The setting up of the GTA also followed a long period of shortage of geography teachers and decreasing numbers of students

enrolled in geography courses at post-secondary and tertiary levels. At this critical time teachers of geography must have realised the truth in Walford's (1998) words "the survival of the subject will be dependent on the enthusiasm and expertise of those who represent it in the classroom." (p. 64)

Despite the fact that the professional development of teachers is generally not the primary aim of subject teachers' associations, the latter can indirectly contribute to it. Definitions of professional development can be broad comprising all forms of learning undertaken by teachers ranging from courses organised by higher education institutions to private reading. The term can also be used in a narrower sense to refer to post-graduate degrees or in-service training. For the purpose of this paper, Day's (1999) definition of professional development is to be used:

"professional development consists of all natural learning experiences and those conscious and planned activities which are intended to be of direct or indirect benefit to the individual, group or school and which contribute through these to the quality of education in the classroom." (p. 4)

Within the context of this definition, activities organised by the GTA, that were aimed at enhancing and refining the knowledge and skills of teachers related to specific geographical issues may potentially contribute to the professional development of participating teachers. Since its setting up the GTA has been organising three main types of activities: it annually publishes a set of papers on geography and geography education, it regularly organises talks on geographical themes and it organises field trips to areas of geographical interest about six times a year. Through these activities, the GTA aims to keep teachers up-dated with latest research in geography and geography education. It recognises that enthusiastic teachers can utilise the insights they gain through these activities to plan and deliver geography

lessons that are more exciting and relevant to the needs of their students. Ultimately the GTA hopes that the participation of teachers in its activities results in an improvement in the teaching and learning of geography.

Teachers' perceptions of the contribution of GTA to their professional development

With the aim of investigating teachers' perceptions of the opportunities for professional development that the GTA is offering them, a questionnaire was distributed amongst geog-

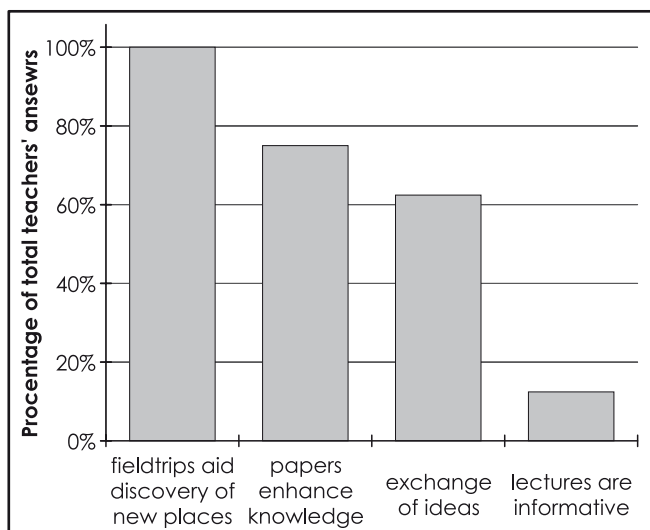


Figure 1. Teachers' perceptions of the GTA activities

raphy teachers who are GTA members. In the questionnaire no definition of professional development was offered to teachers with the specific purpose of allowing teachers' own notions of what constitutes professional development to be expressed. A response rate of 52 per cent was achieved.

In answer to whether they think that the GTA is contributing to their professional development all respondents invariably agreed that the association does contribute to their professional development. Teachers were asked how the GTA is actually enhancing their professional development (Figure 1). The field trips were considered by all respondents as the activities that offer most opportunities for teachers' professional development. Teachers claim that field trips help them to discover new natural and man-made landscapes of geographical interest. After familiarising themselves with these newly discovered places teachers then evaluate the potential of these sites for fieldwork sessions for their students. The papers that are annually published by the GTA are perceived by teachers as a means of circulating the results of research in geography and thus keep them updated with new developments in geography as an academic discipline and geography education. Teachers remarked that the knowledge and insights they gain from the reading of these papers facilitates the inclusion of up-to-date examples in their lessons.

The opportunity to discuss and exchange ideas with other teachers of geography and geographers was the third most cited reason why teachers consider GTA activities to contribute to their professional development. Matters related to the geography syllabus and national examinations seem to be the most popular topics informally discussed by teachers during these activities, despite the fact that these themes are the least focused on in GTA activities.

Teacher members of GTA were also asked to suggest other activities that the GTA could organise to enhance the professional development of its members. The most popular response was the organisation of seminars to discuss various aspects of school geography including syllabuses, textbooks and teaching aids. The setting up of a resource database or centre that facilitates the sharing of teaching aids amongst teachers is also regarded as an activity that could enhance teachers' professional development. Field trips to places outside the Maltese Islands are also perceived as an activity with a potential to develop teachers' knowledge about places and concepts taught in school geography. A number of teachers suggested that students should be invited to attend to some seminars and field trips with the specific purpose of discussing aspects of the geography syllabus that interest them or that they would like to change. Besides these activities it should also be noted that two teachers sitting on the GTA committee have been nominated by the association to attend international conferences organised by EUROGEO, the association that brings together geography teachers' associations from across Europe.

Discussion

Joyce and Showers (1988) advocate that professional development has an impact on different levels of an individual, namely on awareness, knowledge, skills and application. They suggest that the level of impact is dependent on the type of professional

development experience. Whilst Craft (2000) acknowledges the different levels of impact of professional development identified by Joyce and Showers (1988), she argues that an improvement in pupils' learning should ultimately be the goal of teachers' professional development. The findings of this survey indicate that the GTA activities are not merely serving to raise their awareness and updating their global knowledge but also to plan lessons that include up-to-date information and examples and fieldtrips to new sites. Whilst the influence of these on pupils' learning was beyond the scope of this study, it might safely be assumed that an improvement in pupils' learning is more likely to be registered in classes where teachers bring geography at the research frontiers closer to their students. Thus it might be argued that GTA activities are achieving the maximum level of impact identified by Joyce and Showers (1988), that is application, and Craft's (2000) ultimate goal of professional development, that is an improvement in pupils' learning.

Adey (2004), whilst criticising traditional professional development courses for teachers for their lack of teacher involvement and passive lecturing-style, claims that professional development of teachers can be effectively achieved by giving teachers the time and means to learn from one another. This feature is probably one of the strengths of GTA activities, in bringing teachers of geography from different levels of the educational system together, teachers are given the opportunity to exchange ideas on curriculum matters and to discuss issues that are at the heart of their day to day practice.

Adey's (2004) strong belief in teacher-to-teacher learning indicates the direction that future GTA activities could follow in order to enhance its contribution to teachers' professional development. The GTA should further capitalise on the strengths of all its member teachers by encouraging participation in collaborative projects both between teachers within the same educational setting and between teachers from different levels of schooling. GTA could also play an important role in encouraging and, perhaps, facilitating the participation of Maltese teachers of geography in European and international projects and research work thus exposing its members to developments in geography and geography education in other countries.

Conclusion

The results of this survey indicate that geography teachers' associations can have an important role in the professional development of their members, despite this not being their primary objective. Through their activities teachers' associations can make geography at the research frontiers more accessible to teachers of geography. Through their expertise in pedagogy teachers can transform the latest geography to meet the learning needs of their students and the requirements of the curriculum – a process that benefits the individual teacher, the status of geography in schools and the quality of geography education.

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Networking and social diffusion of Critical Geography in Galicia (Spain): The “Abalar” Project

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Abstract

The Abalar (to shake, in Galician language) Project is an attempt to create new platforms of debate and new spaces of discussion and networking for geographers in Galicia. This is a Spanish Autonomous Region, a nation located in the Northwest the Iberian Peninsula. Galicia with its own language, very close to Portuguese, and a very remarked geographic specificity.

Traditionally, official geography was developed around the Faculty of Geography and History, in the University of Santiago de Compostela. But in the last years, Galician Geography has been reorganized; geographers not belonging to academic world have tried to create their own organs of expression, like the Galician Society of Geography or the Galician Professional Association of Geographers.

The last of these projects is Abalar. It is constituted by group of geographers (from the University and not), which meet regularly to talk and debate about Geography, from a social and critical point of view. Abalar organizes meetings, conferences, discussions, “geographical-café”, lectures, commented-films and also publishes its own journal, called Abalar (3 numbers per year). The whole of the Abalar Project and the journal are based on horizontal relationships, and open to everybody who wants to improve the diffusion and knowledge of Geography and Geographers in Galicia, networking from a social and critical approach.

Key words: Abalar, Critical Geography, Galicia, Networking

Introduction

“Geography must show a critical face, or it won’t be called Geography”. In 1950 Carl Sauer was very clear about it: the Geographic Sciences -in front of social and political conflicts arising as an opposition (or as a consequence) to the unequities in the distribution and use of a territory- should be an instrument and a tool.

In 2002, among the university refugees and the professional left-overs, was born in Santiago de Compostela (capital of Galicia, a historical nation placed in the NW of Spain), the ABALAR Project, a “shaking-group” in our subject (Figure 1). As its own Galician denomination implies (“to shake something without breaking it completely”), this organization aims to question the evolution of all spatial studies. Its aim is to move, dislocate, swagger and shake their structures. In order to do it, ABALAR is created as an inter-generational group, in which all the tendencies since

the end of the 1980s are represented. As an innovative characteristic, is it built not only by students and professors, but also by professionals, administration workers and the unemployed.



Figure 1: heading of the journal and logo

In November 2002, a group of people decided to get together to talk and to debate about Geography-related topics. A diverse agglomeration of people with a common subject: concerns about Galician Geography, and how to make it useful for the society. Despite the fact that some of the members of the collective were part of the educational institutions of Galicia, also taking part in “official” initiatives, this path recently has shown a landscape full of illusion but not exclusion.

Ours is an open and plural association with critical formulations related with Geography and the present World. The interchange of ideas from very different vital, job perspectives and ideological positions, the suppression of hierarchies or the study of topics which cannot be comfortable for *Academia*, are some of our basis in order to build for our future (Editorial of Abalar Journal, № 0, 2003).

Dignifying Geography in Society is taken as a previous idea and has been adopted as a starting point. The Project must be based on the social utility of everything, of all our products including writings, speeches and thoughts. A very important issue is the concern shown towards all the problems directly related with Galicia. ABALAR was the only geographical organization which explained to society its position with regard to the Prestige disaster (an oil spill with dramatic ecological consequences in Galician coasts in 2002). Firstly, the journal EL PAÍS published a manifesto (26-11-2002), and afterwards, a complete report was published in the number 0 of the ABALAR journal.

The journal is the most visible part of the project which tries to put the basis of the new (we are hoping) construction of Galician Geography. Nevertheless, at the same time this association is concerned and worried about global conflicts, like the war in Iraq or the celebration of the World Social Forum, the Brazilian MST – “Movimento dos Sem Terra” among others. But the ABALAR Project demands and claims to be something more than a journal. Roundtables, lectures, symposiums, field trips, cinema-forums or meetings are activities in which ABALAR is in charge of organizing. This mobilization made possible that ABALAR is now counted as one of the main groups of Critical Geography in Spain. This was recognized by **García Ramón** in the recent “IV International Conference of Critical Geography”, celebrated in México DF in January 2005 (see García Ramón, 2005: “Does it exist a Critical Geography in Spain?”). It also is important that the organization the First Symposium of the Group of Geographical Thought within the Spanish Association of Geographers, with the title: “Histories, Geographies, Cultures” will be celebrated on 27–29 June 2005 in Galicia.

Galicia must be shaken with energy, in its structures, in its conscience, in order to awake from the false dream of the opulence of capitalism, which sometimes seems to become an authentic nightmare. Rural areas are becoming more and more regressive, the sea has become black, the cities and villages are badly managed, the territory

is mistreated, the culture is a-cultured, and Galician people are migrating or dying. We cannot be happy by just waiting: we want to shake this great Atlantic rock, and everybody who wants to work with us will be welcome.

We need to think bearing Galicia in mind. If our territory, our culture, our society has unique elements, also our way to think and to make things has to reflect these circumstances. But we cannot forget that we are and we want to continue being in the World. This obliges us to reflect and to have conscience that an hypothetic change in the global scale only can be possible through a lot of changes in the local scale. Nowadays, Galician Geography was only able to have a little growth, despite that the existence of very good approaches of professionals working and researching in Galicia. Also regarding to this we are an appendix of what it is currently done in Spain.

The building of a Galician Geography from a critical-radical perspective was a complicated task. It was necessary to show less well-known authors in Galician Geography through works, notes and papers. This has been achieved with David Harvey, Doreen Masey, Neil Smith, Don Mitchell, among others. It was also necessary to link Galician problems with the new trends in spatial analysis: the analysis of the landscape (E. Cuñas), the concerns about gender and exclusion spaces (X. Santos), the climatic evolution and the associated hazards (A. Martí and M. Cabalar), the new interpretations of the urban universe, with issues like gentrification and segregation (B. Estêvez, M. J. Piñeira and R. Sanz), the mobility as the big challenge of the 21th century (M. Pazos), the topic of Social Geography associated to demographic processes (J. A. Aldrey), the territorial configuration, the concept of border and human territoriality (R. C. Lois and X. Santos), the cultural transformation of societies, the spatial context and the arising of a new scientific epistemology in the postmodernity (X. Constenla), the conflict of the industrial sector in Galicia (A. Miramontes and L. Ulloa), and also the problems associated to the fishing sector (analyzed by several authors).

In this aim, the constant invitation to non Geography-linked people enriches the debates. We want to build Galician Geography, without closing our ears to experiences which can be useful for us. In order to do this, we invited to participate in our project -in the journal but also in the activities- to professors and professionals from Catalunya, the Balearic Islands, the Basque Country or Madrid, but also to people working in Brazil, Paraguay, Japan and Europe (Bulgaria, Germany, the Netherlands, Ireland or Portugal).

We don't want to lose our identity and ideology, nor our language or culture. This is the reason that our activities run in Galician language and we renounce –to have clear ideas and clean hands- institutional economic help. We opted from the beginning for self-management.

It is important to say that ABALAR does not have associated people. There are not economic fees nor hierarchies: ABALAR has horizontal structures, where a university professor has the same category as an unemployed person. Somebody publishing something in the journal, somebody participating in our activities, but also somebody taking part in them is counted as a member of the Project.

After a long wait, we can say that Galician Geography –in the context of Social Sciences in Galicia– has been in a period of uninterrupted expansion for more than a decade (aproximately). Nevertheless, the members of the Galician Geography scientific community cannot be satisfied nor shout too loud, basically because this sentence, despite being true, is also very weak and very new. We are not facing a situation of scientific hegemony (and we wouldn't want it for Geography), nor also are we a wide and well-organized community. The opposite is the case, we must talk about the fact that this situation is the result of the “doing” and “thinking” of a non-shaped community, without institutional help (Figure 2).

Fortunately, Geography as a science and also as a profession has shown once again that it is over all of us

and all the personal interests that can and could exist. Nevertheless, with all the processes in movement in Galicia, we must try to support a meeting space. Galician geographers need it, because we are used to live back

to back among us, lying in the deepness of ostracism and in the most serious of the vulnerabilities. As a result, to appear suddenly in History or Geography means to forget about our scientific and personal prejudgements, bearing in mind that the important issue in these structures is the usefulness to the collective which integrates them and, as an extension, to the rest of society –in this case to the citizenship of Galicia–, hosting them.

A different question from crazy enthusiasm and from overflowing arrogance is pride (Figure 3). Pride as a symptom of dignity. We must be proud of being geographers in Galicia, originators of the very much needed spatial-based studies. Most still live in deep ignorance of this sense, facing away from Geography. So: we must have self-esteem, of course, but this must be corrected by prudence and humbleness. We still are the “poor sister” of Social Sciences, despite everything.

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Figure 2. Drawing for the number 3 of the journal (Designed by Ultravioleta). (“Galician Geography under construction”)

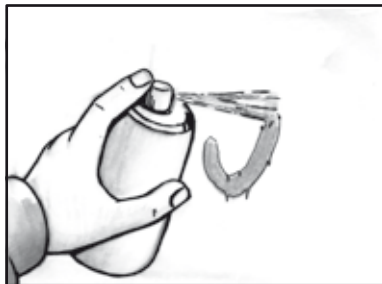


Figure 3: Cartoon for the first edition of the Journal (Designed by Ultravioleta) (“I am a Geographer and I am proud of it... Sometimes more than another ones”)

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The place of Geoinformation technologies in the education and professional development of European geographers

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Abstract

This paper discusses the importance of GIS and related geoinformation technologies in the processes of capacity building of geographers. In the analysis of different teaching programs, the accent is placed onto European practices in teaching GIS. The paper is trying to depict the situation of GIS education in Europe and to propose a view for the changing of the teaching approaches of GIS and GI technologies as a whole in the geography curriculum.

Key words: Geography, GIS, teaching, Geography education, Geoinformation technologies, professional development, capacity building

Introduction

In recent years the use of computers and information technology as a whole changed dramatically the system of higher education. Today we cannot imagine the traditionally very conservative academic world without ICT. In the case of academic geography this role is played more or less by Geographical information Systems and related Geoinformation (GI) technologies. Those technologies made geography "high-tech" discipline and the majority of professional geographers have already accepted this fact today. For the last two decades GIS found its natural place in geography curricula and the GIS skills today are an integral part in the professional development of the contemporary geographers.

But is it enough to simply put some GI courses into the curriculum? Is there a need for a new approach in teaching GI and GIS? Do we need to be "rethinking" the place of GI and GIS in the professional development of geographers?

To answer those questions is not a simple task, but we believe that opening such discussion among European geographers is very important for the future of academic geography and for the position of the geography and geographers in society. The answers of such questions are directly related with issues like "employability", which are of vital importance for our future as a community.

Why GIS and GI are important for professional development of geographers?

To answer this question, first we have to answer the question what makes GIS technology so important? On first sight the answer is simple- because we need information about the space and the different phenomena in it and GIS is very effective tool which makes this. And because geographic information is a major information category, there is a need to have a specialized information system, which is able

to gather process and store spatial data, to support the analysis of this data and to generate geographical information for different purposes

But if we look deeper, the development of GIS and related GI technologies only happened because of geography. The geography has provided the necessary fundamental approaches to gathering geographical data, methods for analyzing the data and generating geographical information, spatial models etc., and the IT provided the framework where the geography and geographers could operate more effectively. Of course GIS is not only geography and geographers are not the only competent developers and users, but they should be the most prepared professionals, who can understand the complexity of space. That makes geography important for GIS and GIS important for the professional development of the contemporary geographer.

On the other hand, the perceptions and the vision about GIS are changing. GIS is not only an Information System – it is a whole branch of human activities, integrating business and science in one whole. This branch needs different kind of specialists, but geographers could be one of the most valuable, if they have the necessary competences to work with this technology. And the time and technology are working for our cause. Today GIS is not a new technology for the world – it has entered its fourth decade. While in the beginning it was very “technical”, now it is more science driven. The contemporary technology is simplifying all the time the “interaction” with the computer hardware and software and offering more and more opportunities for the user to operate with the artificial (digital) geographical environment. This could make the geographer the “right” constructor and manager of this environment.

The place of GI in geography curricula across Europe

To study the actual statement of GIS in geography programs at the European universities, about 350 geography departments from 32 countries from Eastern and Western Europe were reviewed. About 230 of those departments (or 65.6 %) recognise GIS as main research and teaching area. This demonstrates that academic geography in Europe counts GIS as a very important geographic subject. The percentage varies across the continent, but we can group the countries in following major groups:

- Countries with a small number of geography programs, but where all departments recognise GIS as one of the main research and teaching areas. In that group are Greece (4 departments), Denmark (3 departments), Estonia (1 department), Serbia and Montenegro (2 departments), Slovak Republic (2 departments), Malta (1 department).
- Countries with a big number of geography programs and high percentage of programs, where GIS is recognized as one of the major areas. Among those countries are UK (from 73 reviewed programs, in 68% GIS is recognized as major field), Germany (83 programs; 58%).
- Countries with a relatively high number geography programs (more than 10) with high percentage of programs, where GIS is recognized as one of the major areas. Most countries are in this group, including the Czech Republic, Netherlands, France, Norway, Spain etc.

- The group of countries with a small number of programs (less than 10) with high percentage of GIS – Russia, Slovenia, Croatia, Finland, Romania etc.
- The group of countries with a small number of Geography programs with less than 50 % of the departments, which are recognizing GIS as major field. Here are Bulgaria, Italy, Switzerland etc.
- The last group includes the countries, where GIS is still not recognized as major subject- Macedonia, Latvia, Albania, Moldova etc.

From the above classification we can conclude that GIS is widely recognized as a major teaching and research area in European geography departments. However, if we compare the situation in Europe with this in USA, Europe is still behind the States. In the reviewed 225 geography programs in USA, about 79 % of them declare GIS to be one of their major teaching and research areas.

Do we need a different approach in teaching GI?

Teaching GIS is not a simple task. Very often it requires the ability to offer abstract concepts of digital representation to students who are sometimes unfamiliar with computer science. On the other hand teaching GIS also requires the development of relationships between theoretical concepts. These concepts include space, location analysis and the spatial models with the capabilities and the features and the “language” of the different software packages. Very often the GIS education is not more than GIS training, where “point and click” is the leading teaching approach.

According to Rhind and Raper (2001) “there seem to be about 2 million GIS users at present. About 2000 universities run courses on GIS and hundreds of other courses are run by non-academic organisations, such as software vendors. Those taking the courses come from a huge variety of backgrounds – environmentalists, people working in local and central government, utility companies, the military and not-for-profit bodies. Yet, despite all this, GIS education and training is astonishingly similar world-wide and – in our view – is mostly stuck on historical tram lines.” (Rhind and Raper, 2001, GIS: time for rethink, *GeoEurope* May 2001 10 (5), 47).

Therefore the question “Do we need new approaches in teaching GIS?” is becoming more and more significant. This is because the GIS and GI literacy are not formed only by technical skills, but demands more than ever before basic spatial culture and understanding. A proper GIS education must place an emphasis on the scientific fundamentals of the technology and on the deployment of concepts and analytical skills, rather than keyboard commands.

When we are answering the question “Do we need a new approach in teaching GIS?”, we must take into account the role, which we think geography plays in GIS – as has already been pointed out, it is only the scientific fundamentals of GIS and the technology that gives the framework. Despite the fact that, operations in GIS appear to be largely technical in nature, one of the most important issues for the GIS operator or user is to be aware of the geographical concepts that inevitably underpin any GIS operation. This is what we believe differentiates GIS education from any other IT discipline. Based on this, we can propose five basic principles, to express our vision why the teaching GIS should be changed:

1. Fundamental to understanding GIS is the recognition that the GIS model is not only a specialized computer model like conventional databases. It is an interpretation of geographical space, and therefore the modelled objects and phenomena need to be as close as possible to the real world.
2. GIS is ‘as different as it is similar’ to traditional geographical analysis and mapping, meaning that the GIS education should be organized in close relationship with the core Geography program of the department or faculty.
3. Taking into account the above principle, we have to point that there are different types of GIS specialists, these might include:
 - GIS users
 - GIS developers and
 - GIS “architects” and managers.

The level of geographic competence needs to be different for each type of specialist. A GIS teaching program should be designed to serve either a specific level of GIS specialist or to gradually build knowledge through each specialism, from GIS user to GIS “architect”. In this case, the “GIS architect” should be familiar with all geographical concepts that GIS technology is built upon.

4. The didactic, two-stage educational approach (introduction, followed by an advanced course) is simply not efficient in GIS education. A case study approach with extensive hands-on experience provides better focus, but also puts a greater burden on individual instructors and facilities.
5. GIS is no longer a camera-based discipline – modern GIS and geoinformation are mobile and thus a significant part of GIS education might be organized on the field.

Considering the above principles, we think that GIS teaching programs must be designed in four mutually penetrating and interacting stages, which have to be tightly connected to the fundamentals of geography as an academic discipline:

1. GIS fundamental module: This module must give the necessary theoretical knowledge about the geographical concepts behind GIS technology, Geographical (Spatial) modelling, traditional and computer based mapping, Principles of GIS, etc.
2. GIS attributive module: Here students need to receive the necessary computer literacy, as well as knowledge and skills in Remote sensing, Geodesy, Photogrammetry, Statistics, and all other related disciplines.
3. GIS application module: the leading approach here must be so-called “problem-based learning”. A case study approach is foreseen so that students will get to know how real-world problems are solved through GIS.
4. GIS practicum, including field work thanks to the so-called “mobile GIS” applications

The organizational time line of the programme needs to be slightly different from the standard ‘two stage’ approach: introduction and an advanced level, including applications. This approach more or less produces only GIS technicians, instead of GIS specialists with competences to design more reliable and representative computer-based geographical representations. Therefore the fundamentals must be formed on geographical concepts and courses, developing spatial thinking among students.

Conclusion

With the topics developed in the paper, we are aiming to open a discussion within the European geography community about the place of GIS and GI technologies in the geography curricula in Europe, as well as, their role in the capacity building of European geographers. We think that GI literacy and the capacity to work with geographical data and information are among the key characteristics of the contemporary geographer. Those capabilities are playing an important role not only in the terms of improvement of the employability of geography graduates, but also they are very important for the promotion of the geography as a discipline and professional field in contemporary society.

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The Future of Geography and Geography Education in Southeast Asia: Issues and Challenges

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Abstract

Southeast Asia has again captured world attention with the recent December 26, 2004 tsunami disaster. Earlier, in 1997 it experienced a major financial crisis, followed by SARS and Avian Flu epidemics and terrorist attacks that had significantly affected the economies of many countries in the region. Despite these setbacks, the region is vibrant and the economy is picking up. With the strong resolve to move forward, Southeast Asia through the ASEAN (Association of Southeast Asian Nations) grouping will become more cohesive and will remain a fast growing region. Also, with greater exposure to globalisation, modernisation and wide use of ICT the region will again be a key player on the world stage.

Ironically in this milieu of economies, political systems, different stages of economic development and diversity in languages, culture and environment, and global impact geography, which once held an important position in schools and universities in Southeast Asia, is facing a crisis. This paper discusses this crisis, in terms of issues and challenges geography is facing and in the context of systemic educational reforms that are taking place in many countries in the region. References will be made to the position and role of geography in other regions as lessons learned from outside could be applied to geography in Southeast Asia.

Key words: Southeast Asia; geography; geography education; crisis

Introduction

My paper focuses on issues and challenges facing geography as an academic discipline in schools and universities in the Southeast Asia. Because of the complexity of the region any attempt at synthesizing these themes will be inadequate; nevertheless an attempt will be made to provide an understanding of the status and future of the discipline and research.

I will draw from my own experience in Singapore, Brunei and Malaysia where, in total, I have spent some thirty years at tertiary institutions, as well as published materials and inputs from colleagues from other parts of the region that I received through correspondence and interaction at the past seven Southeast Asian Geography conferences I helped coordinate. My paper recognises trends and developments in geography outside the region, not only in terms of geography education per se, but of the broad educational reforms that are taking place in many countries throughout the world. It is in the context of such educational reforms that we can assess the position of geography in the educational system of the Southeast Asian countries.

Challenges facing geography in Southeast Asia

Geography has been under siege in schools and universities in Southeast Asia (see papers published in *Malaysian Journal of Tropical Geography*, Special Issue, 1990). In many countries the position of geography is declining mainly because of the wrong perception of its worth. I think the way the subject is taught is also partly to be blamed. One cannot agree more with Unwin (1992) when he remarked that what is taught as geography at the primary, secondary and tertiary levels, and the way it is taught, are thus absolutely central to the understanding of the social practice and *acceptance* (emphasis mine) of the discipline. In Indonesia, for example, Adikusomo (1990) lamented the state of geography in high schools outside Java where more than a quarter of the geography classes was taught by teachers who had no college training of any kind in geography. This situation worsened with the economic and social instability that followed the radical political changes after 1997. In this situation, fieldwork and other geographical knowledge and skills would not be properly taught to geography students, if they were taught at all. It is vital that given the complexity of geographical studies that the subject should be taught by well-trained specialist teachers.

Then, there is a perception that geography is a subject that merely provides a good general education with useful knowledge of the environment, and skills to aid in that understanding. In some countries like Malaysia, history has been preferred for a proper appreciation of nationhood, and this resulted in geography being sidelined at the upper secondary schools levels ('O' and 'A' Levels). Consequently, geography in some secondary schools in Malaysia has ceased to exist, and geography teachers have been re-deployed to teach other subjects.

One more challenge facing geography is the fact that the discipline has been integrated into a wider course such as Social Studies (US and Singapore). In Singapore, for example, recent education reform has seen the removal of physical geography altogether in favour of a paper called 'Combined Humanities' where some aspects of human geography integrated with history and economics form the basis of the module. There is now a vociferous call to move back towards discipline-based subjects in the school curricular as the integrated approach is looked upon as anti-intellectual and populist (see Gardner, 1986; Powell, 1997; Biddle, 1999). Physical geography will make a comeback in Singapore secondary schools in 2006.

In Singapore pragmatic, economic reasons very often take precedence over purely academic considerations.

- a. There is a perception that geography is a 'soft option' and therefore its study will not be crucial to the development of Singapore. Disciplines with strong business, technology, life science orientations are perceived to be the ones that will make a difference to the country. Singapore's pragmatic approach towards manpower planning with obvious bias towards these subjects would sound most logical but the consequence on geography enrolment in schools and universities is predictable.
- b. In many countries geography has been subsumed under two broad sciences – earth sciences and social sciences. This may possibly be the start of the marginalization

of geography. In Singapore Social Studies has gained greater importance as it is recognized as a useful vehicle for National Education or citizenship education.

Opportunities for Geography in Southeast Asia

Geography has intrinsic qualities that make it relevant but it must also be made useful. Its relevance and usefulness can be appreciated through the following arguments, which also apply to Southeast Asia.

- a. Intellectual rigour – geography today is very different in intellectual content, depth and rigour than what it was three or four decades ago. A cursory glance at a book entitled “Geography in the 20th Century” edited by Griffith Taylor (1951), indicates that from the 50 papers presented the traditional treatment of the sub-disciplines in geography showed no resemblance to what they are today. This reflects the vibrancy of geography in light of new developments in science and technology and geopolitical and socio-economic environments.
- b. Today, human awareness of and concern for environmental degradation and resource depletion is at its highest. Geography, more than any other science, has traditionally been associated with the study of the environment and human occupation of that physical space. The decade 2005–2015 is the UN Decade of Education for Sustainable Development and geography is in an enviable position to play a crucial role in helping to achieve its goals. At the very least, geography curriculum should continue to emphasise this objective of creating environmentally literate citizens who would be able to transform cognitive understanding of the environment gained in the classroom to environmentally friendly behaviour and actions in real life.
- c. In its ability to handle IT, geography can strengthen itself through the introduction of the IT and GIS related skills to schools. Much progress in this has been achieved in the west, but gradual inroads are being made in Singapore schools (Zhu, *et al*, 2004). But the same cannot be said of the other countries in Southeast Asia.

In Singapore, geography is still vibrant. As a small island state with no natural resources, the economic success of Singapore makes it a unique model of successful development. In this microcosm of human society issues such as limited space, environmental conservation, housing, population growth, ageing, extraterritorial catchments for both investments and resource development (for example, growth triangle, water resource development), and its geographical location as the regional and international hub of Multi-National Corporations, telecommunication giants, airline and shipping companies, and flows of goods and services, to name a few, all lend themselves to rigorous geographical scrutiny.

Efforts at integration of ASEAN as a regional block will open up opportunities for geography. Through fieldwork conducted outside ones own borders students of geography obtain a good appreciation of their neighbours. It is through this familiarity with life outside ones own, gained through field research that can contribute towards building a more cohesive region.

Research and Publications

Southeast Asia has a milieu of interesting ingredients that afford a range of research interests in geography. A significant number of geographers have been trained in different traditions outside the region, particularly in Europe, the North American Continent, Australia and New Zealand. Significant influences can also be traced to the links Southeast Asian countries have with their past colonial countries. It is discernible that traditions from the French geography have influenced the way the subject is organized and taught in Vietnam, Cambodia and Laos. The British traditions have to a large extent influenced geography in Malaysia, Singapore, Myanmar and Brunei Darussalam, while the American influence is discernible in the Philippines. In Thailand, although it had no colonial links, I think, the American influence is more significant. Invariably, developments in the subject in these parts of the world have a direct trickle-down effect on geography in Southeast Asia.

Given this variety of exposure, landscapes and cultures geography in Southeast Asia should be a rich amalgam of influences and traditions. Unfortunately, this is not the case, as the variety of national languages as mediums of instruction in schools and universities preclude not only this amalgamation, cross-fertilization of the discipline and research, but of contact and communication as well. This obstacle is slowing being eroded as more and more academics in the region become proficient in English. It would soon be feasible for a network to be formed to link geographers from within the region together like that of HERODOT.

For geography in the region to move forward, there is an urgent need to know what is going on in each of the ASEAN countries. This has been made possible through publications, and to a small extent, by the holding of the biennial Southeast Asian Geography Association (SEAGA) conferences since 1990. As regards publication, the more established international journals from the region are the Singapore Journal of Tropical Geography, The Malaysian Journal of Tropical Geography, Journal of Southeast Asian Studies, Asian Affairs, and Pacific Viewpoint. Apart from articles in these journals and the sharing of research findings at conferences, books have also been written and published on many aspects of geography in the region. There is considerable interest in research on the region by academics from outside, who together with indigenous colleagues have contributed a rich array of publications.

Concluding remarks

What then is the future and direction of geography education in Southeast Asia? The above discussion has shown that the subject is facing similar challenges as in the developed countries. While still capitalizing on its intrinsic strengths geography must also revitalize itself by aligning it to new developments in the world of place, technology, and educational reforms that are taking place in many Southeast Asian countries. There is an urgent need in the world of the new millennium to build new geographical imaginations (Massey, 1999). I cannot agree more with what Fitzhugh (1992) has articulated that we need to define geography; develop systematic, sequential curriculum; prepare geographically literate teachers; and develop tests which assess more than memory recall. In light of recent educational reforms the teaching of

geography should become much more student centred, ‘conceived with the development of students as geographers and individuals’ (Gold, *et al*, 1991). In many ways, we at the National Institute of Education, Singapore that prepares teachers have adopted this approach and have been engaged with the Ministry of Education in influencing curriculum and policies. The future of geography depends on students’ exciting experience of learning the subject. Students should be nurtured to develop their own critical approach and to find meaning of the world they live in.

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The status of geography in Norway; an issue of grave concern

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Abstract

The uneven status of the discipline of geography from country to country is a theme that has not been much analysed. One reason is clearly the lack of data, but this will now be somehow remedied by the survey that has been carried out by HERODOT for the European Commission on 'Tuning Educational Structures in Europe'. Some of the data collected for the survey will make it possible to compare the status of the discipline between the European countries. Still a lot of quantitative data will be lacking. And then we must ask: How to measure 'status'? One measuring rod will be the number of students enrolled for geography compared to other disciplines, but in some countries the enrolment is controlled and limited so sheer numbers may not give the right answer. Other ways of measuring 'status' would be by the relative mass of scientific publications, by opinion polls for ranking useful disciplines by the general public, or use position in the school system as a barometer for status in the decision making system. Here we have used the simple number of students and staff in the university system as basis for saying something on the status of the discipline. On this basis we can conclude that geography has a weak position in the Norwegian University system which also must be seen as an indicator of its weak status in the population. We also have found that the discipline is rather strong in many other countries at the same level of economic and educational development. A number of hypotheses can be assessed, tested is too 'strong' word, to give some explanations of these international differences.

Key words: Norway, status of geography, survey, curriculum, economic development

Introduction

Almost 20 years ago the author carried out a survey intended to give an overview of the status of geography in the Nordic countries. This was presented at a meeting of the IGU Commission on the History of Geographic Thought, in Bundanoon, Australia prior to the IGU Congress in 1988. My intention was to trigger off a wider IGU study as I had found in my Nordic survey that understanding these differences in status – in whatever way these were measured – are closely linked to the national histories of the discipline. Such a broad survey has, however, not to my knowledge been carried out.

Some striking international differences

Through international contacts, we know that geography is on the verge of extinction in the university system in some countries, whereas in other countries it belongs to

the handful of disciplines that has the largest relative number of students and faculty members and produce candidates that are rather sought after in the labour market.

Seen from abroad the US geography is a large enterprise with more than hundred institutions offering MA degrees and more than 50 offering PhDs in the discipline. American geographers are often the ones invited as keynote speakers and the production of textbooks and scientific publications are quite large. BUT. Compared to other disciplines US geography is small and marginal. The geography departments in the IVY-league private universities have almost all been closed down. As guest professor in Seattle in 1985 I witnessed the struggle to save the department at the University of Chicago. Many departments have a steady fight for survival, and if you are out it is pretty difficult to reintroduce the discipline. If you do not attract enough students or produce enough science you are threatened. This is of course gradually also the case in Europe, but still in a milder form of educational market economy. When in the USA, you soon see one striking difference to European departments: There is not an intention for a department to cover the broad canvas of the discipline, physical – ecological – human geography. At the University of Washington, the focus was on economic geography – regional development and cartography – GIS when I was there. But on the margins some peculiarities survived, as a course that was given every year by one staff member on the history of the ‘great discoveries’ from Marco Polo and the Vikings to Stanley and Roald Amundsen. This course survived because it attracted every term a number of students. We know of course also from Europe that students may choose a course because it is ‘easy’ to get those ECTS grades or because the lecturer is rather good and popular. But then we need to ask: Is this type of educational market system the best to lift the quality and ability of candidates?

US geography departments are thus struggling for survival, whereas just north of the border, in Canada, the discipline is rather strong and the closing of departments much more unlikely. This is more or less the case in most of the countries that once belonged to the British Empire. In the UK, as far as I know, geography still is among the most chosen disciplines by the enrolling students. In most universities geography has larger staff and more students than other social sciences. In Germany and the Netherlands the discipline is also rather strong; in both countries ‘Diplom-Geographie-Studenten’ is provided an applied geography education primarily opening up for jobs in planning. Many departments across the world, struggling to find their location in either the Faculty of Social Science, Faculty of Natural Science or Faculty of Arts, they envy the situation at Rijksuniversiteit in Utrecht for its ‘Fakulteit der Geowissenschaften’! In some countries in Europe the discipline is on the other hand on the verge of extinction (Italy).

In the former state-socialist countries in East and Central Europe geography in general seems to be in a relative strong position. Traditionally most departments are attached to Natural Science faculties, and often have larger part of the staff in physical geography, landscape geography and cartography than for instance in a human geography working on more critical analyses of planning and locational issues. The change to a market economy makes a new approach to planning and locational analyses necessary and geography is well suited to provide this if it gets

the resources to develop such studies. Student numbers seem to increase in Eastern and Central Europe, an impression I have got after visits and contacts with departments in Hungary, the Czech Republic and Estonia.

The relative position in the Nordic countries

The survey I made in 1988 on the situation of geography in the Nordic Countries was based on questionnaires I sent out to all the Nordic departments. I got answers back from almost all departments with data on staff numbers, graduate and undergraduate students in geography as well as at the total numbers of students at the institution. The percentage of geography students of the total student number at the institution does not give the ultimate measure of position; some institutions may include for instance faculty of medicine, dentistry etc, while others have a more limited education choice. But the survey led although to the following general conclusions: The status of geography measured this way confirms that the status and position of geography varies between the Nordic countries with a much stronger position in Finland than in the other Nordic countries. Less than 1% of the university students studied geography in Denmark and Sweden at that time, a bit more than 1% in Norway and Iceland. In Finland, however, 2.5% of the university students were enrolled in geography. (See summary of survey in Norwegian in Holt-Jensen 1990).

In Denmark geography had lived through a period of internal strife in the 1970s and 80s and departments were closed down. Later, however, the large department at Copenhagen University and the Department at Roskilde University Centre have been consolidated. I do, however, not have more recent quantitative data. A particular feature in Denmark is, however that geography has a rather strong position still in the school curriculum and in teacher seminars which educate teachers for the primary schools.

Wärneryd (1987) points out that there is a clear difference between the way in which geography is taught and organised in Finland and Sweden. With the exception of Umea University and University of Linköping, geography is separated into human and physical geography at the universities and also in the Swedish educational system, most importantly in the high schools (gymnasiums). This separation started in the early 1950s and means that every university has both a department of physical geography and a department of human geography. In the school system geography does not any longer exist as a separate discipline, but is partly represented in the curriculum for 'social sciences' and partly in 'natural science'. The reason for this partition goes back to the 'spatial science' period when it seemed that the 'core of geography' – in general linked to the 'regional paradigm' – did not provide sufficient basis for advanced studies. Swedish geographers managed to use the new period of scientific development in a way that gave success both internationally and as experts in the home country. And this gave candidates access to a new and interesting jobs in planning and public administration. On the other hand; the general knowledge in the public about geography as a discipline became much reduced as it does not exist as a clear discipline in the schools. Incoming students know very little of what geography is about. Scientifically Swedish geography is rather strong

and respected and the institutional situation is much better than in Denmark as there are geography departments in all major universities. In Denmark there has however, not been the same argument to split physical and human geography; this is mainly due to the fact that physical geography in Denmark is much more focused on applied research than in Sweden and Norway. The reason for this is obvious; the physical changes in the Danish moraine and sand dune coasts and landscapes are much more influenced by recent human action than the mountains and fjords of Scandinavia. Physical geographers in Norway and Sweden have concentrated their research on landscape formations before humans entered. Danish physical geographers have had large projects on present coastal reclamation and development. It is of course easy to argue that methods in geomorphology and in social geography differ greatly, but the position geography has as a bridge between physical and social sciences has become much more important in recent decades with the growth of environmental studies (biogeography and eco-geography), landscape studies and planning, which also most fruitfully can utilise GIS.

With a population of less than 300 000 Iceland is too small to sustain a complete university education in all fields. Icelandic students to a large extent has to go abroad to take graduate degrees. Haskola Islands (The University of Iceland) has a joint department of geography and geology. There is no reason to split human and physical geography in a country which has to cope with active vulcanism and hot springs as integrated parts of the daily life. Geography has a rather sound position in Iceland.

Geography holds, however, its strongest relative position in Finland. It is well established as a discipline in most Finnish universities and economic geography is also taught at the Schools of Business Economy. It is interesting to note that geography is regarded as an important discipline in the regional planning education at Tampere and Joensuu Universities. This contrasts particularly to Denmark where geography hardly exists at the Schools of Economics and has a meagre role in planning education. In Finland enrolment of students in different disciplines is, as far as I know, still regulated, which could mean that geography could have more students than is actually enrolled. And this is in relative terms double as many as in the other Nordic countries.

The position of geography in Norway

Geography has a minor position in Norwegian universities, although MA candidates in geography have fewer problems in getting relevant jobs than candidates from a number of other disciplines. Of the 5 Norwegian universities (Oslo, Bergen, Trondheim, Tromsø and Stavanger) geography is only taught in the first three. In the major Oslo University geography is split between two faculties; Faculty of Natural Sciences where physical geography is taught within the Department of Geology and Physical Geography and Faculty of Social Sciences at which human geography is taught in the Department of Sociology and Human Geography. We may link this split to the fact that Norway very often copies what is earlier done in Sweden, but local factors such as academic contradictions at the personal level also is part of the explanation. This split may have had some positive effects on academic productivity, but the grave

result is that geography has a dubious identity in the *media* which is to a large extent dominated by TV and press in the capital. At the University of Bergen the Department of Geography is located in Faculty of Social Science but educates candidates up to MA and PhD levels in both human, environmental and physical geography. In Bergen there is also teaching of economic geography at the Norwegian High School of Business Economy (NHH). At NTNU University in Trondheim Department of Geography is located at the Faculty of Social Sciences and gives education up to MA and PhD levels in human and environmental geography.

In the recent decades Norwegian geography has lacked the strong iconoclasts that attracted attention to Swedish geography; the small number of university teachers have fought to cover the broad canvas of geography themes in total and to make this teaching attractive to the students that have enrolled. In Bergen we have the strange situation that social anthropology has double the number of undergraduate students as geography, whereas on the other hand geography offers twice as many undergraduate courses as the social anthropologists. In addition to the basic courses in human, environmental and physical geography we also are responsible for courses in local and regional planning and environmental science, plus of course GIS. The heavy teaching engagement is a burden for academic publication activity, but in fact also leads to a situation where students continue to MA when they first enrol in geography. University teachers have not had any possibility to influence the situation of the discipline in the high schools. Geography still exists as a separate discipline with 2 teaching hours per week in the second year at high school. But 10 years ago we had 3 hours per week.

The school curriculum has been changed a number of times in the last decades; the political leaders have in all cases very little understanding of what knowledge and skills the discipline can provide for the youngsters. And it has been very difficult for the few active geographers to reach the decision making bodies in an effective way. The secretaries of state for education have been some rather strong personalities with virtually no knowledge of geography as a learning instrument.

Reasons for the differences in the status of geography

Although the presentation given above on the status of geography in Norway and other countries at the same economic and development level is rather scanty and incomplete, I hope it may give some basis for curiosity and reflections. When we now set up some hypotheses that, at least in part, may explain the differences, we must realise that it is impossible to test them in a scientific way. One reason is the lack of comparable data, the other that most hypotheses are of a kind that could only be evaluated by historical and qualitative reasoning. The set of hypotheses are:

1. The status of geography in a country is directly correlated to the position of geography in the school curriculum.
2. The status of geography is dependent upon how early it was institutionalised, i.e. when a university degree in the discipline was required to teach geography in high school.

3. The strength of school and university geography today depends on the degree to which the subject in the past was considered to further the cause of national identity.
4. The status of the discipline is dependent on the degree to which geography is maintained as a united discipline encompassing both man and nature
5. Leading personalities (iconoclasts) or lack of such may in many cases explain the growth or decline of the discipline.
6. The status of geography is to a large extent dependent upon its image in the press and among common people.
7. The status of geography today is dependant upon the degree to which it has succeeded in educating candidates for planning and other jobs outside the educational system.
8. The status of geography is dependent upon its ability to adjust to new developments in society and to adopt new research trends.
9. Growth has a tendency to foster growth, decline may accelerate decline.
10. Student enrolment reflects current happenings and 'fashions' as reflected in the media, disciplines that market themselves by what is seen as 'old-fashioned' descriptions suffer.

I will only comment briefly on these hypotheses:

On 1. Historically the weak position of geography in universities seems to be a direct consequence of a rather weak position in the school curriculum. Fotheringham (1984) stresses that 'the single most important reason for the popularity of geography in British universities is probably its strength in the school system'. A comparison between Finland and Norway seems to confirm the same. In Finland geography is taught as a separate discipline on all levels in the school system, whereas in Norway it is part of a general 'orienteeing' subject in primary school and only a definite separate discipline for one year in high school. In Denmark however, geography still exists as a separate discipline in schools and this is also supported by a relative strong organisation of school teachers in geography, but the position of university discipline is much weaker. Here we may look for other explanations.

In general we may also note that up to the 1970s the educational system was the main job market for geography candidates so a correlation between geography in schools and universities seems reasonable.

On 2 and 3. The institutionalisation of geography was in most countries a direct result of the new primary and secondary educational system which superseded the old 'latin schools' in the years 1860–1900. New pedagogical ideas gave the basis for 'Heimatkunde', knowledge through experience of the children's own neighbourhood and home country (See Holt-Jensen 1999, pp. 30–32). Geography was found useful in this connection. The discipline was established in the universities often by political decision, sometimes against more or less open resistance from the universities. As pointed out by Stoddart (1986) geography became established in Oxford and Cambridge mainly because the Royal Geographical Society covered the main costs for the lectureships over a period of 35 years. Other disciplines, such as biology, geology, anthropology feared that they would lose support from the

geographical societies if geography became a university discipline. The political influential members of the geographical societies saw, however, a broader role for the discipline; it could fulfil a role which- like that of history- was essential for the new generation in the epoch of nation building (Capel 1981). Further it was rather useful in a period of colonial expansion. The anarchist geographers Kropotkin and Reclus, however, argued for the discipline as an aid to mutual international understanding, an argument that suits us better today.

At the end of the 19th century both geography and history was given a position in school curricula, but their relative positions in the educational system largely came to depend on the degree to which it was history or geography that seemed most useful in building up the idea of *national identity*. Norway had no disputed borders, but national identity building during the union of crowns with Sweden 1814–1905 was fostered by teaching about the glorious history of Viking times and the precious liberal constitution of 1814. Hence history came to dominate over geography with many weekly hours of teaching at gymnasium level. Finland, on the other hand, which also experienced in the same period a union of crowns with Tsarist Russia, lacked the legacy of a glorious history and the border of spoken Finnish and Finnish types of agricultural practice became of more importance; in the Finnish liberation process the *Atlas of Finland* (first edition in 1899) was an important medium. Geography became an important discipline in Finnish school system as it also became in the UK school system. Quite interesting today is the building of national identities that is taking place in the Baltic states; there are striking differences between Lithuania in particular and Estonia. Lithuania can point to a glorious past; the technical university in Vilnius is named after the medieval leader Gediminas and the country uses much money to rebuild medieval palaces that are only traced as patches in the ground. Estonia, on the other hand, cannot point to any glorious past as they were ruled by others from medieval times. National identity has to be built more on geography, on the language, folk songs, dances and customs linked to the common people attached to the land. Estonia has the same background as Finland, Lithuania more the Norwegian. This new nation building may, however, not have any bearing on the attraction of geography and history as university disciplines.

On 4. Whether the discipline has been maintained as a united discipline or not seems to be one factor that can explain growth and decline in recent years. In Denmark geography was lost as a discipline when university education was separated in human and physical geography in the 1960s; both were simply closed down. And Finnish geography seems to flourish as a united discipline. The division in human and physical geography in Sweden and in Oslo in Norway seems, however, to prosper in academic terms. My concern is that geography as such is not ‘understood’ by the media due to this division; and thus it is easier for media people to consult sociologists or geologists.

On 5 and 6. Not all can, however, be blamed on the educational system and the legacy of institutionalisation; to a large extent development has also been promoted or reduced due to the activities and choices by disciplinary leaders. A successful start of a discipline often depends on the brilliance of the first appointed professors.

It is quite clear that Vidal de la Blache in France, Halford MacKinder and Dudley Stamp in Britain had a very strong influence on the development of the discipline, mainly as they influenced national politics. In small countries as the Nordic ones, everything depended initially on one or two persons. In Finland they were very lucky in having three leading geographers following each other; Hult, Rosberg and Granö (Rikkinen 1988). In Sweden, Torsten Hägerstrand definitely was an important inspiration for modern Swedish geography and opened new job opportunities for the graduates. The image geography has got in media and in the general public is to a large extent dependent upon the activity of the leaders. In Norway geographers have had problems in attracting attention in media, whereas social anthropologists are very often contacted and their opinions focused. The rather strange situation is that social anthropology attracts more students than geography although their job opportunities are less. And anthropology also has no position in the school system. Since the 1970s, however, few geographers have chosen to work in the high school (gymnasium) system as the discipline has a relatively minor position. This makes direct recruitment of new students problematic.

On 7. This hypothesis can to some extent be tested. Examples could be drawn from a number of countries like Germany, The Netherlands and UK, but I will refrain from that here. When we compare Norway, Sweden and Denmark we find that growth or decline of the discipline in recent years to a large extent seems to have been dependent on opportunities lost or taken in the development of applied research and planning. The main market for Norwegian MA candidates in geography is in public administration, primarily in local, environmental and regional planning where their skills have been well received. This is now strengthened by the geography courses in GIS. In Bergen we have added planning theory and field courses in local and regional planning, environmental studies as well as coastal zone management to ordinary geography courses. This is creating a problem as we have to cover many different courses with a too small staff. On the other hand it is quite clear that it is the candidates with qualifications from some of these more applied courses that have the best possibilities in the job market.

Hypotheses 8,9 and 10 I leave uncommented for further reflection. It should only be concluded that the recruitment of students with high abilities and ambitions is a matter of grave concern in Norwegian geography departments. New students think they know what geography is about, based on a rather mediocre presentation of selected themes at the high school level and more often they choose other disciplines they believe are more interesting. It is also quite clear that students will often unreflecting follow new 'fashions' or themes that are in media focus, without considerations of job opportunities in the future. In 1958 50% of the very large number of new entrants to natural sciences in Norway wanted to be specialists in nuclear physics! At present a large number of new students in social science and humanities want to be 'Middle East specialists' studying Arabic, social anthropology etc.! The majority of them will of course be stuck with a specialisation of meagre use when they finish. With a BA in geography they would have a much broader canvas of choices when they have studied for some time. And we see the positive effect that the small number of

them that eventually choose to study geography tend to stay on in the discipline and end up with an MA degree.

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Effective Practices in Distance Education in Upper Secondary Level Geography in Finland

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Abstract

During the last decade, there have been large changes in the society and the school system in Finland. This article briefly describes the curriculum for upper secondary school geography, to be introduced by the 1st of August 2005. In the new curriculum, communication, media skills and technology are listed as important teaching methods. The article also offers a specific set of pedagogical and assessment strategies found to be successful in distance education in Geography. Distance education offers students an opportunity to have upper secondary level education also in small rural village schools, which do not have teachers in all the required subjects.

Key words: multiform teaching, net-based learning environments, geography education

Introduction

Finland launched a special information society strategy in 1995 (Ministry of Education, 1995) in which the use of information and communication technology (ICT) in teaching and learning figured as a key to accelerating the progress in the chosen direction (Sinko and Lehtinen, 1999). In 1999, the Ministry of Education updated the ICT strategy. This was a continuation of earlier governmental efforts to steer national growth towards an information society through learning and education. The main concept in the programme was a 'learning citizenship society' (Ministry of Education, 1999). The third strategy was published in 2004. This Information Society Programme can be divided into three categories: knowledge, content and the operating environment. The programme is targeted to all players in the education, training and research fields and it concerns all citizens as users or producers of information society services. The programme is geared 1) to develop all citizens' information society knowledge and skills, 2) to enable educational institutions to use information and communications technology (ICT) in a versatile way in their activities, 3) to establish ICT-based procedures in education, training and research and 4) to promote social innovation through the use of ICT (Ministry of Education, 2004).

The ICT strategies have affected the processes at schools. All schools have an Internet connection, and systematic staff development has started. Innovative

projects are running and in the best cases, they are a natural part of school life (Niemi, 2003).

The curriculum for upper secondary school geography

In the Finnish national curriculum for upper secondary school geography, the main goal is that a student becomes aware of the relationship between the human being and nature, and understands the earth to be a changing and diverse living environment. The students should acquire a readiness to analyse regional environmental questions, and to find solutions in accordance with sustainable development. Geographical education integrates topics from both natural and social sciences. There are two obligatory courses to be studied: The Blue Planet and The Common World. The Blue Planet course consists of Physical Geography. The content includes topics such as Geographical Thinking, Position of the Earth in the Solar System, Atmosphere, Hydrosphere, Weather and Climate, Changing Topography of the Earth, Vegetation Zones, Landscapes through Maps and Figures. The Common World course consists of cultural geography. Its main topics are The Nature of Cultural Geography, Population, Natural Resources, Primary Production and Environment, Industry and Energy, Traffic and Interaction, Landscapes and Land Use, and Globalisation and Sustainable development. In addition, there are two optional courses named The World of Hazards and Regional Research. The first course includes threats and risks, both from natural phenomena and the action of human beings. The second one includes Cartography, GIS (Geographic Information Systems), and regional geographical research by the students. In upper secondary level geography, the areas to be evaluated are the development of geographical thinking skills, mastery of geographical concepts, stating arguments for conceptions, and skills to observe regional dependences. The skill to interpret, evaluate and use geographical information, and presentation and co-operational skills are also to be evaluated (Opetushallitus 2003).

Distance education in Oulun Lyseon Lukio School.

The geographical courses studied in Oulun Lyseon Lukio School are Natural Geography, Human Geography, Geography of Hazards, and Regional Geography. One course consists of about 30 hours of teaching during the six week period. The lessons are each usually 75 minutes long. There are two 75-minute lessons and one lesson of 45 plus 75 minutes during each course week. Therefore, the student has three geography lessons in a week. This is the situation in normal contact teaching in Oulun Lyseon Lukio School.

In distance education, there are two possible teaching approaches. The first is called multiform teaching, which is used at Tyrnävä and Ylikiiminki satellite schools. The teaching can be distance teaching all the time, it can partially take place in a normal contact situation – meaning that the teacher and the students are in a same classroom at the same time. Usually this happens only once during the course when the students commute from Tyrnävä and Ylikiiminki to Oulu. The teacher, however, has the possibility to drive either to Tyrnävä or to Ylikiiminki to give the class and meet the students in one of the satellite schools and have the videoconferencing going

on to the other satellite school. Of course this is possible only if the teacher only has a few lessons to be taught overall, because it takes from 35 to 45 minutes to drive from Oulu to Tyrnävä or to Ylikiminki. Many teachers do like to drive to the satellite schools whenever it is possible, and the students seem to especially appreciate it. They feel that the teacher is ready to make some efforts for them. They appreciate that the teacher really would like to get to know them.

The second approach follows the principles of distance teaching more closely. It takes place within the Northern Ostrobothnia Distance Teaching Network (NODiTeN; Pohjois-Pohjanmaan etäluukioverkosto in Finnish). The teaching and learning environment needs technical devices such as computers, phones and maybe videos. The system is close to virtual schools, but is more effective, because there is a closer connection between the student and the teacher. In a virtual school the teacher and the students really do not meet or see each other at all. But in the Northern Ostrobothnia Distance Teaching Network, there are usually two 100-minute videoconferencing sessions per course. During those two lessons, the students and the teacher see each other, and can communicate through videoconferencing. Basically, the sessions have started to resemble normal classes where the difficult parts of the course are discussed.

The course outlines are presented on the net in a learning environment called Optima Discendum. Optima provides teachers with possibilities to choose the desired type of Web-based learning and decide how to implement it. The workspace is a mode in the environment in which the teacher carries out their training or project. In principle, an environment can contain any number of workspaces. The workspace always has an owner who has administrative rights to the workspace. The supervisor's role is to create an operational environment in which the venture (or learning activity) is carried out. The supervisor can assign users to the environment as workspace members. A user with access rights to one or more workspaces is called a member. Each user automatically has their own folder, created when the user account is created or imported into the environment. The user's personal folder is an environment-level function, and therefore available regardless of workspace membership, as long as the user has an account in Optima. Through the desktop, the user can conveniently and centrally administer the messages, documents, annotations, bookmarks, and settings in the environment. Messages and documents can be easily located using a search engine (Discendum, 2002).

There are discussion forums and working environments for each course, which contain the goals and specific guidelines and materials needed for the course. The type of the course material depends on the teacher. Sometimes the materials are similar to virtual schools in that everything is included. However, this is not necessary as the students may still have textbooks and other resources. The students have given feedback that the material provided should be clear and precise. There is so much information dealing with geographical issues, that the basic guidelines and the core material were valued as more important than the amount of information. The teachers' job is thus to sieve the core material as clearly as possible. Back to the basics is the guideline for a distance teacher.

A variety of methods are necessary to assess student performance and learning. Evaluation and assessment is an integral part of the teaching-studying-learning processes. Formative evaluation is embedded in activities and interaction between students and between students and teachers. The teachers use the information gathered to make corrections and changes in the study plan. Teachers can also use e-mail, bulletin boards, chat rooms, self-evaluation and product evaluation for assessment. At the end of the course the students have summarised evaluation tests. This evaluation is based on numerical values. Teachers also make a summarised evaluation of the students in the form of the final grade. The students' progress measured using formative assessments throughout the course is taken into account in the final evaluation. Also this is given in numerical form.

Conclusion

Developing ICT with distance education as a part of it in schools is a long process. It requires an effective technical infrastructure, psychological and cultural changes in teaching and learning. It seems that schools are in the middle of this process. Teachers do not resist implementing ICT, but it seems that they are not completely convinced of its advantages. In order to fully utilize ICT, they require better learning materials and digital content in Finnish. In addition, the teachers have problems integrating ICT in the curriculum, and they feel that the schools lack both effective technical facilities and support to maintain these environments (Niemi, 2003).

However, distance education is becoming an important component in all educational sectors in Finland. In this article, some pedagogical features have been presented that are good to consider when teaching on distance education. In order to create a rewarding online learning experience, evaluation needs to be combined with an effective learner-centred pedagogy. When teachers set clearly defined learning goals and expected outcomes, develop criteria for evaluation, and use multiple methods of assessing learning and teaching, they promote an environment that is conducive to learning. By providing activities and leaving time for discussion, a dynamic community of learners can be constructed.

Finally, course organization strategies, such as scheduled activities and messages from students and teachers form an integral part of the learning experience. Ongoing communication and interaction is imperative to support students and help assessment and evaluation made by teachers. That way distance education can also be a good personal experience and give stimulation and interaction as much as traditional contact teaching in a classroom.

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Primary and Secondary Educators' Attitudes on School Geography

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Abstract

This research is an attempt in investigating the attitudes of primary and secondary teachers on teaching geography at primary and secondary schools. A written questionnaire was filled by 155 primary and 80 secondary teachers who were participating in a continuing education program at the University of Athens. The analysis of the questionnaires has shown that although all the educators accept that Geography is a useful subject and that it should be taught at schools, nevertheless 48% of the primary school teachers and 65% of the secondary report that they don't like the subject of geography; they don't want to teach it and they would prefer to teach other subjects instead. The teachers stated that negative attitudes towards the subject are due to: a) their insufficient knowledge (they haven't been taught at all or they have been taught the subject insufficiently at the University), b) their bad experience as students themselves (memorization, irrelevant educators etc.), c) the lack of suitable teaching material which could make the subject attractive and d) the lack of time for the preparation of the subject according to the demands of the "new Curricula".

Key words: Geography, Primary and Secondary Education, Teachers' Attitudes

Introduction

In recent years in Greece, significant attempts have been made towards the improvement and modernization of the geographical knowledge provided at schools, by means of new geography curricula (Government Gazette Issue [GGI]: 241/1996, 335/2000, 1375/2001, 364/2003), new school textbooks (Galani *et al.*, 2002; Karambatsa *et al.*, 1997; Karambatsa *et al.*, 1998), creation of new supporting material (Anagnostopoulos *et al.*, 2001) educational software and, finally, training seminars for geography teachers. Despite all these efforts, however, the improvement of Geography's image as well as changes in teaching this subject at schools has barely taken place, if at all (Klonari and Karanikas, 2004).

The literature in general (Lumpe *et al.*, 2000) as well as experience in Greece (Chalkia, 1999) has shown that the present state of teaching Geography in Greek

schools is the result of the role educators are assuming in teaching geography as well as the attitudes they adapt towards the subject matter of their teaching. This of course should not be surprising, since the overwhelming majority of educators, both in primary and secondary schools, have acquired their knowledge of geography mainly from relevant courses they had taken themselves as students during their high school education. More specifically, it was found that 92,9% of primary school geography teachers and 95% of high school geography teachers during their college education were not taught any Geography courses or they were inadequately exposed to Geography (subject matter, materials and teaching methods).

Based on these facts it was deemed particularly important as well as extremely interesting to examine the attitudes and points of view of educators teaching geography towards their subject both in primary and secondary schools. This research attempts to identify the issues that affect the educators' attitude towards the subject of geography. To this end, 155 geography teachers of primary schools and 80 geography high school teachers, from the greater Athens area, were provided with questionnaires containing "open-ended" type questions. The characteristics of the chosen sample (their composition in terms of sex, age, experience, specialty etc) closely resembled the national average, creating a statistically credible sample to work with. As for the questionnaires they contained both positive and negative questions (e.g. "I like teaching geography because..." and "I do not like teaching geography because..." or "The subject of geography is essential to students because..." etc), as well as other more general questions (e.g. "When you say that an educator teaches geography "properly", you mean that..." or "When you say that an educator has a good command of geography, you mean that..." etc) etc. The processing of these answers led to the formation of a "map" of answers reflecting the attitudes and points of view of educators regarding geography teaching as well as the image projected by the educators themselves.

In addition, the questionnaire results were analysed using the "SPSS 10" statistical package for Windows, in order to investigate whether factors such as sex and years of service have an effect upon the attitude and points of view of educators regarding teaching of geography. Finally, one-way ANOVA was utilized in order to discover any differentiations among various groups of educators. For this purpose, the following two major groups were established: primary and high school geography teachers.

Results

The results were categorized into four sections and are presented separately. The first section is related to the teachers' point of view regarding the subject matter of geography and their attitudes.

The results show that the overwhelming majority of both the primary and high school teachers believe that the subject of geography repels students (83,9% and 98,75% respectively) because of four common reasons (the required memorising of facts, the difficulty of the subject matter, the inadequate or incorrect teaching and inappropriate educational materials).

The interesting thing, however, regarding these results is that whereas there is not a statistically significant difference in the view that geography repels students, primary and high school teachers differ significantly in their justifications of the reasons that lead to this result. More specifically, the primary school teachers believe that the main reason is that memorising is required, an opinion that indicates that they have not put the effort to familiarize themselves with the spirit and rationale of the new curricula and the changes that they have been brought to the teaching of Geography (method of teaching, aims, etc); on the other hand, the high school teachers believe that the lack of educational materials is the main reason, thus shifting responsibility to the Ministry of Education for not providing schools with the appropriate resources.

These responses should not be surprising given that educators from both the primary and secondary schools believe that an educator has a good command of geography when he has knowledge of the countries and continents (49,1% and 60% respectively), knows how to “read” and use maps (24,5% and 12,5%) and, of course, employs the appropriate teaching methodology and educational materials (16,1% and 18,75%).

It should be noted, however, that although both groups reckon that knowledge plays the most significant role in the subject of geography, there is a statistically significant difference between primary and high school teachers in terms of the role of teaching methodology. That is, primary teachers are more sensitised towards this issue as compared to the high school teachers who claim that if you know the subject’s material, you can actually teach it well.

The second section of the questionnaire has been concerned with the subject of geography at school. The two questions concerned with the answers of the educators’ points of view and their justification as to whether the subject of geography is essential to students and, therefore, should be taught at schools showed the following:

There is absolute agreement between the two groups of teachers, since almost 90% of them believe that geography must be taught at schools. However, in terms of the reasons for which they believe that geography must be taught as well as what exactly it is that students should learn, there is a difference of opinion. That is, primary school teachers believe that geography should be taught so that children will learn about the world as well as their country, whereas secondary teachers believe that students should learn simply how to use maps.

There was a statistically significant difference between primary and high school teachers in the following question: “What do you mean when you say that an educator teaches geography properly?”. The majority of the primary teachers posed four main prerequisites: first, to trigger the students’ interest (23.2%), second, to know the subject-matter (21.3%), third, to use maps and other educational materials (20,6%) and, finally, to be able to communicate knowledge effectively (15,5%). On the contrary, high school teachers believe that the first and foremost factor in order to claim that somebody teaches geography properly is to use maps and other educational materials (46,5%) and, of course, to know the subject-matter (27,5%).

The third section was concerned with the actual teaching of the subject of geography. The answers to the questions of this section show:

- A statistically significant difference between secondary and high school teachers in terms of their enjoyment in teaching geography. Both groups do not seem to enjoy teaching this subject (52,3% vs 35% respectively). The reasons they provide for their negative attitude towards teaching geography are: it is not their area of expertise (high school teachers 27,58%) or they are not properly trained (primary teachers 13,50%), there is a lack of appropriate educational material (15,20% and 23,50% respectively) and, of course, there are no appropriate books facilitating the teaching of geography (12,9% and 10% respectively). A considerable number of educators state that they have a negative attitude towards geography because of their bad experience as students.
- The majority of primary teachers (47,8%) state that they prefer teaching other subjects such as history, grammar, arts, math and science. The same is true for the high school teachers who regardless of their area of expertise state that they prefer teaching other subjects.
- In terms of high school teachers all specialties, regardless of sex, they prefer teaching other subjects as a first or second preference; even geologists, for whom geography is their primary assignment, rank geography 5th or 6th in their preferences, placing physics and chemistry at the top.
- It is rather impressive that 65% of all high schools teachers place geography after the 5th place in their order of preference.
- Finally, the majority of educators, both primary and high school teachers (74,8% and 72,5% respectively), feel that they do not teach geography properly and the reasons they provide are: there is a lack of teaching materials, they do not have time to prepare according to the new curricula requirements and they have not received further specialization or appropriate training.

The fourth section refers to the relationship educators had as students with the particular subject. The majority of primary and high school teachers (49,1% and 70% respectively) stated that they did not like geography even when they were students, because their teachers demanded simple memorising and did not teach it properly. It is worth mentioning that the majority of all educators stated that they recall the following in terms of their geography teachers: they were putting emphasis on remembering facts and drawing maps, they were taught the subject by non-specialist teachers and geography was considered as a secondary subject. A significant percentage of them (17,4%) stated that “it feels as if I haven’t been taught geography at all”. As a result it was revealed that a strong correlation exists (one-way ANOVA) between the teachers stating they dislike geography and those who had a bad experience with geography as students. The same type of analysis (one-way ANOVA), however, identified statistically significant differences between primary and high school teachers concerning their attitude towards their teaching preference. Primary teachers display a more positive attitude than high school teachers. Finally, the analysis showed that there are no statistically significant differences between men and women in terms of their attitude towards geography.

Proposals

From the results reported here and those that were omitted due to lack of space the following proposals can be made regarding the teaching of Geography in Greece:

- Curriculum changes and introduction of new textbooks and materials should follow the appropriate training of educators.
- Geography should be taught in all pedagogical departments as a cognitive subject including geography teaching techniques and methods.
- There is a need to redefine the position and significance of Geography within the Greek educational system.

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Charles University geography graduates in practise: the relationship between the concept of education and professional success

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Abstract

In recent years there has been increasing demand for geography studies at Charles University in Prague. In developing high quality of geographical education and making necessary adjustments we have taken the professional success of our graduates into consideration. For that reason a wide questionnaire survey among graduates from geographical disciplines has been done. Nearly 400 respondents answered questions about their career, income, reasons for changing jobs, quality of education regarding their profession etc. The data are presented here with help of statistical indicators, tables and charts. Several conclusions for future conception of education programmes at our department are drawn.

Key words: Geographical education, professional successfulness, questionnaire survey, data analyses

Introduction

The Czech Republic has been undergoing number of conceptual, legislative and organizational reforms in last fifteen years of societal transition. The changing external conditions create a new demand on quality of human recourses and on the concepts of education. Czech universities have modified their study programmes into three-stages (bachelors, masters and doctoral degrees). There are new special bachelors programs i.e. for employees in self-administration or in regional development and many so called “expert schools” have been established.

At present, geographical education at Faculty of Science, Charles University in Prague, is traditionally divided into two “universal” branches, one for future geography teachers and for so-called professional geographers. However the curriculum was essentially changed in the 1990’s. New topical subjects, such as regional and local development, physical planning, behavioural geography or spatial polarization, have been implemented. Teacher training is taught only in masters programmes and is either in various combinations of two school curriculum subjects (geography with maths, history, physical training or with biology; other combinations are possible in the form of an individual study plan) or as geography itself. After graduation from bachelor studies, professional geographers and demographers could specialize in Masters programmes of social geography, regional geography, cartography and GIS or physical geography and geocology.

Geographical studies at the faculty have shown an increase in popularity. At the beginning of the 1990's there were approximately 80 students a year, now there are about two hundred. Though the characteristics of applicants are well known due to the obligatory entrance exams, the professional assertion of geography graduates is relatively unknown, though they are successful. Professional success may reflect on the quality and conception of the study programmes, therefore a wide questionnaire survey among graduates from geographical disciplines was done in 2004. For this contribution we only present the results of some of the most interesting questions.

Methodology of the survey

A survey on the professional success of graduates is often part of a department's self-evaluation. In the Czech Republic surveys have taken place at Masaryk's University in Brno from 1997–2002, at South-Bohemian University from 2002–2003 and there has been older research in author's department (Bičík and Řezníčková 1998). In a new survey four hundred geography graduates from years 1998–2004 were addressed by e-mail and classical mail and we received 183 filled in questionnaires via the website or mail. The main aims of whole research were to identify the professional trajectory of our graduates, their present position and, of course, their opinion about quality of preparation for their profession by the faculty. Below half of the questionnaires (43%,) were answered by graduates from the teacher training programmes and 57% were answered by professional geography graduates. 50% of respondents were men, 45% women and 5% did not state. The number of respondents decreases with the number of years since graduation – we received only 5 filled-in questionnaires from 1999 and 40 from 2004. For structure by study programme see Figure 1.

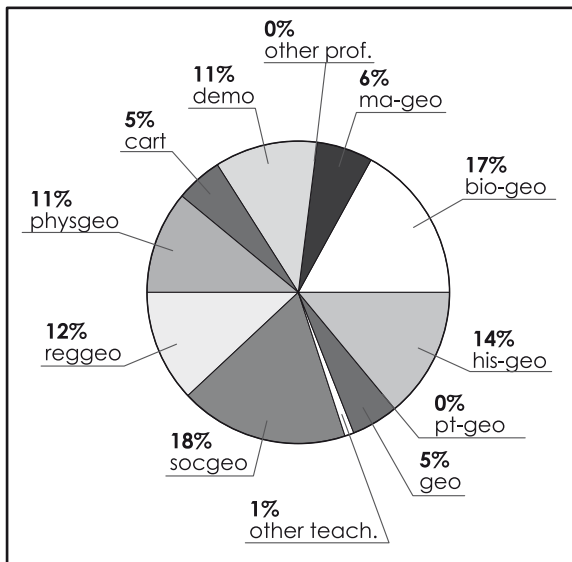


Figure 1. Structure of 183 answers by graduate's study programme

Source: Řezníčková *et al* (2005)

Notes: Teacher training programmes: ma-geo = maths+geography, bio-geo = biology+geography, his-geo= history+geography, pt-geo = physical training+geography, geo = only geography, other teach. = other teacher training subject

Professional geography: socgeo = social geography, reggeo = regional geography, physgeo = physical geography and geoecology, cart = cartography and GIS, demo = demography, other prof. = other professional subject

Selected results of the survey

The majority of respondents stated there had no problem in finding jobs and most of them started their work in the profession they had been prepared for (Table 1).

Table 1. First job in studied field

	Yes	No	“Something between”	Not stated	Total
Share (%)	57,4	14,8	21,3	6,6	100,0

Source: Řezníčková et. al. (2005)

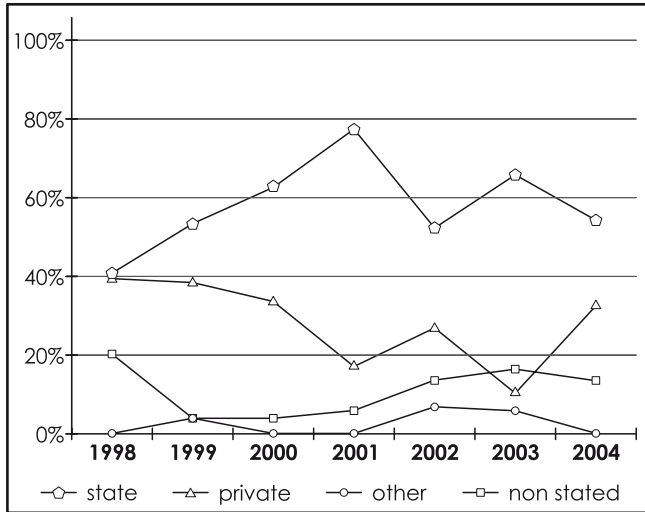
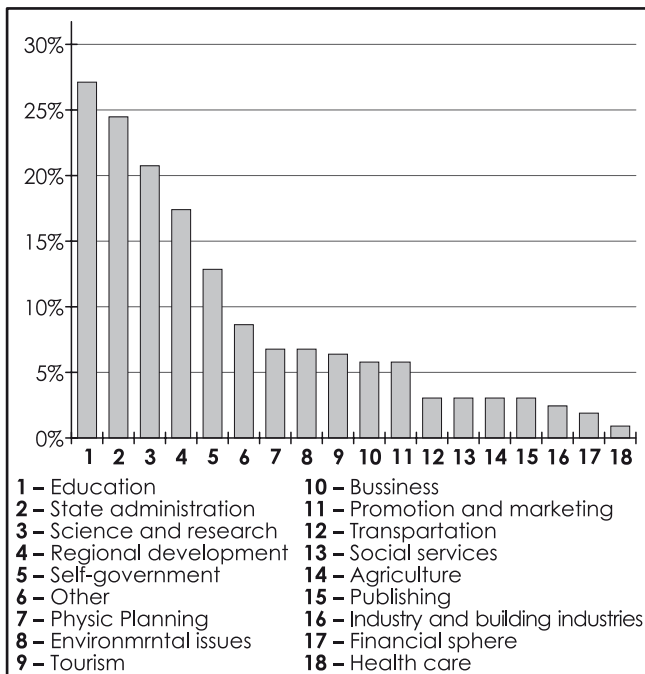


Figure 2. Graduates by present-day job according to year of graduation (%)

Source: Řezníčková et. al. (2005)



Thanks to the specific preparation they are given, teacher-training graduates stated a stronger focus on work in education (53% “yes” against 47% in case of professional-geography graduates)

There was variability in the type of institution where the respondents started to work in the year of their graduation. State institutions and firms have prevailed during whole period of analysis. The highest proportion took place in 2001 when new provincial (regional) authorities were established as a part of major administrative reform.

Geography graduates from Faculty of Science, Charles University in Prague, have found jobs mainly in education as geography teachers, in administration mostly as specialists on regional development, human resources or environmental problems and protection. Some of them continued their studies and work as researchers and lecturers at universities (see Figure 3). Almost three-quarters (74.4%) of respondents stated they work in positions which needed tertiary education studies. Thirty teacher-training graduates responded that they are not working in education (Table 2). Despite the low number of answers this can be

Figure 3. Field of graduates' present-day job (%)

Source: Řezníčková et. al. (2005)

explained due to the particularly low salary in education and the lost of interest about the teaching profession as main reasons. Many teacher training graduates discover the difficulty of the profession after their first teaching experience in the seventh term when they are facing “real” life problems.

Table 3. Evaluation of preparedness for work

	There is no job in education	Badly paid job in education	Job out of place of life	I lost interest	Other reason	Not stated	Total
Share (%)	6,7	20,0	0,0	20,0	13,3	40,0	100,0

Source: Řezníčková et. al. (2005)

Note: 100% = 30 respondents

The questionnaire also asked for the quality of education that was received at the faculty, from the necessary skills point of view. Comparing the evaluation of earlier and later graduates we find no significant differences (Table 3). However it is true that for professional needs the opinions of both types of graduates changes over time. Some important conclusions can be made from the answers of graduates working in field they were trained for (Table 4). These respondents especially stressed the good quality of theoretical and methodological preparation and the learning of geographical facts and knowledge, which traditionally formed the main content of tertiary education. On the other hand, general skills such as computer literacy, communicative skills or learning foreign languages had lower

Table 3. Evaluation of preparedness for work

Skills	Graduates 1998–2001	Graduates 2002–2004	Difference
Theoretical and methodological preparation	1,79	1,78	0,01
Special knowledge of the subject	1,88	1,85	0,03
Practical skills	2,72	2,51	0,21
Language skills	3,39	3,29	0,10
Communicative skills	2,78	2,56	0,22
Organizational skills	2,84	2,49	0,35
Computer literacy	2,44	2,59	-0,15

Source: Řezníčková et. al. (2005)

Notes: 1 = very good, 2 = good, 3 = bad, 4 = very bad

Table 4. Positive evaluation of preparedness by graduates working in studied field (%)

Skills	Very good	Good
Theoretical and methodological preparation	28,6	56,0
Special knowledge of the subject	29,7	49,5
Practical skills	4,4	31,9
Language skills	12,1	35,2
Communicative skills	4,4	29,7
Organizational skills	1,1	27,5
Computer literacy	11,0	36,3

Source: Řezníčková et. al. (2005) Note: 100% = 91 respondents

as computer literacy, communicative skills or learning foreign languages had lower

importance in geography study programmes. This fact will be taken into consideration in the future reforms of the study programme curricula and content.

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New Training Structure in Geography Education in Hungary

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Abstract

On the base of the Anglo-Saxonian model all training systems will be adapted by 2006 in Hungarian higher education, though medical, law, and artist education are excluded. The plan for the new Geography undergraduate programme has been prepared collectively by the national institutions of the higher education and submitted to the Hungarian Accreditation Committee with request for foundation. The education structure is simple, as it is based on a module system framework. We suggest dividing the education at least into three professional streams. Those undergraduates who leave the system after the completion of the undergraduate education (“acquiring a degree”) should acquire knowledge that can be applied in actual practice, as a part of their curriculum, as well. Those students who would like to continue their studies in a narrower field on Masters level (academic stream) should study “more courses on the special subject”, and those who would like to become teachers should learn something different. Students can leave the third differentiated stream for the labour market having a professional qualification. According to our ideas, they can be employed as for example geoinformation specialists, managing area development and tourist or environmental geographical managers. During the training, several professional outputs can be ensured within the framework of studies. In the module of differentiated professional knowledge students will have to obtain 65–75 credits (from 180 B level credit), however, there are possibilities to transfer credits between the different streams, thus students do not have to decide “early”, or rather there is no deadline determined when s/he should commit her/himself to a stream.

Key words: teaching structure, Higher Education, Geography, Hungary, Module-based programmes

The system based on two cycles

In 1999 the member countries of the EU agreed that the systems of higher education in Europe should converge. At that time, the objective was to ensure that the educational-research capacity and the performance of the European Area of Higher Education should become number one in the world by 2010 and it should also exceed the American system. Regarding efficiency, the European system of labour force – compared for example to the American one – has apparently two weak points. Firstly, the labour force is less mobile and secondly it is difficult to compare the many different qualifications. Basically, the establishment of this converged system, called the Bologna-process, serves to remove these disadvantages from European higher education.

The Anglo-Saxon model was collectively chosen by the Ministers of Education as the suggested system. Higher education based on Prussian traditions is applied in Hungary. It is dual, consisting of two types described as college and the university education. Colleges provided a shorter education (typically lasting 3 or 4 years), and they trained teachers for teaching pupils aged between 10 and 14, they issued degrees of applicable knowledge for example in Information Technology. This education was not a sufficient basis to allow students to progress towards a PhD. Universities providing a five-year long education trained professionals, e.g. graduate geographers and teachers (to teach pupils aged between 15 and 18).

The reformed system is to be adapted to all training systems in Hungarian higher education, though medical, law, and artist education are excluded, by 2006. The introduction has several features that are known in the similar efforts in Europe, however, there are a lot of education segments that feature individual characteristics and it cannot be denied that this system still contains a lot of ambiguous elements. These include:

1. Although the needs of the labour market cannot be forecasted precisely, there are some well established international trends, such as that the future professionals should be available for the labour market within a shorter period of time, and that they should have practical knowledge and skills that will need to be improved further. This is in harmony with the objectives of the government to increase efficiency, that is, the educational programmes should last shorter and the students with useful knowledge should leave during the first cycle, the bachelor cycle earlier and should enter the labour market.
2. An important objective was to increase mobility of labour force – to increase the free movement of students (and teachers), to establish for transferability within the system, employable education abroad and professional training, and last but not least, to achieve readable and comparable qualifications and degrees on a European level.
3. Regulating the system was an individual Hungarian feature. The bachelor and master educational levels should usually last 6 terms in a value of 180 credits, or 4 terms in a value of 120 credits respectively. However, in order to introduce new programmes, it was necessary that the two thirds of the given professions agreed to it. The Hungarian Accreditation Committee – HAC accepted this as a foundation document.
4. The colleges were generally able to produce BSc/BA programmes, but in order to deliver Master level courses, the HAC had to accredit it, and colleges were not in the position to develop Masters courses automatically. This is a considerable source of conflict as far as the education reform process in Hungary is concerned.
5. A big problem is that the labour market in Hungary does not know or understand the BSc/BA education system, in addition, there is no experience concerning the extent to which it should be based on a professional or a more general, theory-based system. The pattern solves this conflict by being based on the profiles of the previous university education of five years as a professional stream (based on a general professional basis).

6. These concerns and uncertain outputs (for example, with one third of the students graduating can go on to Master level according to the plans), and those especially regarding the unemployment of graduates (nowadays more than 45% of the generation in question studies in the higher education) make many people uncertain about supporting this reform.

The new system restructures education to a great extent. In Hungary, there are 400 university and college programmes available for students, whereas, the number of the undergraduate programmes will be cut down to 100–105 from 2006 onwards. This also means that the parallelism of university and college training will disappear, complying with some relatively well determined rules, where the institutions may be accredited for undergraduate and Masters education. Thus, a college may provide Masters level education if it can produce the personal resources and assets required in order for it to be accredited. In addition, theoretically, it is also possible that an existing university will mainly only offer undergraduate education. So, like other systems in Europe, two-cycle education does not consist of two but rather of four levels. Apart from the above-demonstrated undergraduate and Masters education, studies could begin with post-secondary training, which is not very popular in Hungary, and might end in doctorate education.

Professional background for the undergraduate level Geography programme

The professional background of the new undergraduate programmes actually means an easier transfer, an increased willingness to mobility and that students can more freely acquire knowledge, but first of all, that students can acquire skills that can be applied in the labour market. The new undergraduate education strongly requires that at the end thereof students shall possess skills. As far as Geography is concerned, in order to solve this problem, we would suggest (the situation is supposedly similar to programmes of sciences and teacher training programmes of Arts) dividing the education at least into three professional streams. Those undergraduates who leave the system after the completion of the undergraduate education (“acquiring a degree”) should acquire knowledge that can be applied in actual practice, as a part of their curriculum, as well. The HAC calls it practical stream. Those students who would like to continue their studies in a narrower field on Masters level (academic stream) should study “more courses on the special subject”, and those who would like to become teachers should learn something different. As we know it now, there may exist undergraduate programmes – such as Physics -, where other streams could be added to these three main streams (practical, academic and teacher). Anyway, we do not intend to increase the number of internal streams at the undergraduate level in the practical stream, of course. The government intends to support the different trainings, which are considered to be very important, in a way that it gives a state support for further 30 credits (ca. one term) to those students who would like to leave the undergraduate education with a supplementary profession in order to acquire the necessary knowledge.

This is the point where we should really think of the situation of Geography. It is said in many institutions of England that Geography is not a profession but an

academic science. I do believe that Geography can exist as a profession for the labour market, as well. Besides this, training for related professions known on the labour market could be better considered, which are taught in several institutions of higher education anyhow nowadays (such as tourist, region development manager or specialist of geoinformatics), and they can provide other training for accredited professions other than that for geographer assistant or technician. As for students' graduation, as a practical output all post secondary training could be considered.

According to the regulations, teacher qualification will only be acquired as a result of Masters-level education. This means a uniform teacher training system, thus the existent system, in which teacher training is divided into university and college education, will be discontinued. Graduate teachers shall be eligible to teach pupils aged between 10 and 18. It means a real loss of position for Geography and similarly to other subjects such as natural science, as the teachers of primary education will be entitled to teach a smaller part of the specific subject to pupils aged between 10–12. The uniform teacher training approach may seem to be unusual to some people involved, but this should not induce insecurity. However, it is certain that if despite all the curriculum framework and regulation of the pupil competences, if Geography as a subject wants to make advances, then something different should be taught in a slightly different way in a slightly different structure too.

The regulation of the two-cycle system concerns “at least one and a half programmes”, as far as teacher training is concerned the half programme is used to constrain the integrated programmes into a system which is similar to the German system of majors and minors. Theoretically, this is dual education, that is to say the study of one major plus one minor is supported. It is not easy to fit this to the above-demonstrated system, but it can be solved if the programmes of arts, that of skills (such as drawing, singing-music) and that of natural sciences can be combined ad-lib. As for the solution, it should be taken into consideration that there is no separate input for teacher training, students shall base their higher studies on a professional input. It is the teaching profession which is stressed by external and internal interests and real professional problems at the same time.

As for Geography (like the majority of the liberal arts and natural sciences) the key point of the solution is included in the undergraduate programme, Geography students acquire the majority of knowledge here (e.g. two thirds thereof, three quarters thereof), which is sufficient to acquire further knowledge in a research stream or even in a practical stream in the future. The students who want to be teachers could gather credits in “another major” such as Biology or Art in the remaining period (in one third or one quarter of the 180 ECTS), in order to establish the basis thereof. The student can also begin their studies related to the teaching profession (at least to the value of 10 ECTS). Therefore, in the teaching stream of undergraduate education there is a kind of one-sided teaching, more “majors” and fewer “minors”. This system enables the students to alter their studies flexibly, and if they realize that they cannot meet a certain challenge, they can transfer to another stream with relatively few difficulties. The training can be adjusted at Masters level, where students have fewer courses in their main major subject and more in their “second major” area, therefore

the two majors will be balanced at this level to a total value of 100–110 ECTS credits, respectively. To this value a total of 50 ECTS credits related to teaching profession can be added. Teaching practice is also allowed for in the teacher stream. In order for students to be able to start their job with more experience, a further 30 ECTS credits of school practice is provided for them, if this was a residential system, they can then do teaching practice for another half year at school under real life circumstances. Details regarding this issue have not been elaborated yet.

If the geography profession enforces its interests adequately and if it can demonstrate that it can provide valuable training for society in Hungary, then the institutions of higher education will be able to maintain the number of the admitted students whose education is financed by the state because there is demand for it (admitted as full time students). On the basis of what we know now, it can be estimated that approximately 900–1000 students can begin their undergraduate Geography studies in the new system in 2006. From among them 200–300 students will be able to enter the master grade of the teacher training in 2009, this number meets the needs for teachers. Actually, there is no problem with having 200–300 researchers professionally in the sense that there is a model for the training of geographers as far as the content of the education is concerned. The situation of the students who leave the system by completing undergraduate level cannot be solved – at least provisionally – by saying that there is no demand for people with such qualifications on the labour market, we do think that the successful institutions will create training that students will find attractive and that the labour market accepts. The institutions of higher education in Hungary have a regional scope that is that the majority of their students come from their respective geographical region. It suggests that there will be great competition between the institutions at Masters level and not undergraduate level. Therefore, the situation concerning Masters level education may have a surprise up its sleeve regarding this issue and generate high competition between institutions. This whole situation will further be complicated by the fact that there will also be an undergraduate programme called Earth Science, however, it has similar output weaknesses with that of the BSc programme of Geography (it is an undergraduate programme that is not considered to be a teaching training programme). There has also not yet been discussion of how we will admit students coming from other undergraduate programmes into the graduate programme and who will accept the BSc degree in Geography for entry to Masters level courses.

The structure of the Geography undergraduate programme

The plan for the new Geography undergraduate programme has been prepared collectively by the national institutions of the higher education and submitted to the HAC with request for foundation/accreditation. The education structure is simple, as it is based on a module system framework. The modules are divided into three groups, the basics, the professional core material and the differentiated professional group. For each module (and for the courses in “core subjects” thereof) minimum and maximum credit points have been determined by a committee in order that the undergraduate programmes in Hungary can be developed in parallel and that they

can convene. Details of these modules are provided here with the total ECTS credits that can be achieved when completing the course indicated in brackets:

1. Fundamental modules

A. *Natural and Social Science fundamental module* (total of 10–16 credits required)

Compulsory contents: Mathematics, Informatics, fundamentals of Natural Sciences (Chemistry, Biology, Physics), fundamentals of the European Union, fundamentals of Economics and Social Sciences (such as Sociology, Demography), and other fundamentals of Natural and Social Sciences in compliance with the traditions and opportunities of the specific institution

B. *Earth Science fundamental module* (total of 13–21 credits required)

Compulsory contents: Climatology, Cartography, other basic studies of Earth Science

C. *Geography fundamental module* (total of 13–21 credits required)

Compulsory contents: Geomathematics (Statistics, Dynamic Geography, Quantitative Geography, Area Statistics and so on), Geoinformatics (GIS, RS, Digital Mapping, Relation-Analysis and so on), Geographical Thinking (Historical Geography, Environmental Protection, introduction to Geography and so on), methods and techniques of geographical analysis and research

2. Professional core material

A. *Natural Geography core module* (total of 12–20 credits required)

Compulsory contents: Geomorphology and Internal Forces, Soil Geography, Biogeography, Hydro Geography, and other courses in compliance with the traditions and opportunities of the specific institution (such as Country Ecology, Zonality, Synthesis)

B. *Social Geography core module* (total of 12–20 credits required)

Compulsory contents: Population and Settlement Geography, General Economic Geography (Geography of Agriculture, Transport, Industry, Infrastructure), and other courses in compliance with the traditions and opportunities of the specific institution (such as Political, Ethnical, Religion Geography)

C. *Regional Geography core module* (total of 12–24 credits required)

Compulsory contents: Natural and Social Geography of Europe, Natural and Social Geography of Hungary (Carpathian basin) other Regional Geography

3. Differentiated professional module

The feature of this training is that besides the basic and professional core material students can acquire further professional knowledge during their studies, which is divided into the following three main professional streams, groups:

A. Module for the teaching profession (teaching stream)

B. Module preparing geography/earth science – geographer – researcher (research/academic stream)

C. Module preparing practice (practical, professional stream)

It can be seen that each of the three module-groups have different orientations, they prepare students for different things. Attending the teaching stream, students can study introductory courses in teaching and the basics of their minor studies. In

the research stream, students are provided with further basics in order to be able to do the professional Masters education in the future. Now we think that this stream also needs some central points, however, it will strongly depend on what kind of Masters education the institutions prepare for. According to existing national ideas the main points are likely to be:

- rural and environment geography,
- area and settlement development,
- social and natural science, and
- further fundamentals of informatics of this profession.

Students can leave the third differentiated stream for the labour market having a professional qualification. According to our ideas, they can be employed for example as geoinformation specialists, managing area development and tourist or environmental geographical managers. During the training, several professional outputs can be ensured within the framework of studies. In the module of differentiated professional knowledge students will have to obtain 65–75 credits, however, there are possibilities to transfer credits between the different streams, thus students do not have to decide “early” in their studies, or rather there is no deadline determined when s/he should commit her/himself to a stream. 5% of the credits are optional during the training programme. Certainly we have tried to elaborate the streams in more detail including the students’ competences, as well. Thereinafter, the structure of the programme geography and that of another major in the teaching training (major/subject x) is presented:

Undergraduate education (180 credits)

80–100 credits in Geography

55–65 credits in a professional subject of major x, which contains the core material of the undergraduate education of major x

10–15 credits in the teaching module

10 credit in thesis (in Geography)

10–15 credits optional

Master education (120 credits)

15–25 credits in Geography

40–60 credits in minor x

30–40 credits in teaching module

10 credits in thesis (in Geography or minor x)

4–6 credits optional

Teacher training is being carried out in two majors in the spirit of uniform teacher training within a disciplinary framework. During their studies, students thus can enrol for teaching courses or for the courses of their other major (minor) at any time.

The real challenges are only now arising for the institutions. They shall put into their structure this “from-till” system. It is a big question whether the institutions have enough power to use this structural reform also for updating the course content as well, or will they decide to choose the well-beaten path they had been using until now. In our view, the fact that the practical training was immature has established pressure to undertake action, however, also modernity and diversity of Masters level

preparation and to some extent, teacher training with its new structure will have to do the same.

Some consequences of the two-cycle system affecting the geography teaching in the primary and secondary education

Starting the new undergraduate level of the higher education in 2006 does not only reform the university-college education and establishes a uniform framework for them, but it also affects the two main participants of secondary education (teachers and students) and the consequences to the curriculum of primary and secondary schools that are worth discussing can be determined, as well. Experienced and competent teachers certainly will be able to suggest relevant methods to teach the latter one.

Discussing the curriculum requires slightly different approach. This impulse will be provided to the participants included in the teacher training, as well. It is a bit more difficult in cases such as Physics where it is clear what natural law in what context should be taught in order that a complex picture and a utilizable knowledge shall emerge in the students. In case of Geography, there are no natural laws, there are only procedures proceeding statistically. There is a great lack of the analysis thereof or of discussion, however, the main problem concerns the competences that can be applied also in practice. If Geography cannot demonstrate this and it remains a basically descriptive subject, it cannot count on the great support of society. Certainly, many people say that relationships cannot be analysed without information. This might be true, but we do not think that the key to practical knowledge is only this. If one obtains more information regarding the geography of Brazil, it does not necessarily help people handle the natural and social questions easier. In accordance with our modern age, one shall reply to practical questions with competent answers.

Evaluation, assessment and geographical education

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Abstract

Within the last ten years various Danish politicians have been focusing on the use of evaluation and assessment as tools to increase the general quality of education in the Danish primary and lower secondary school, including Geography education. This article describes the actual situation regarding Geography education in state schools in Denmark and offers recommendations as to how Geography teachers may address the self-evaluation of their own teaching and assessments of students' learning. Furthermore, the article will include reflections on how teacher education and in-service training can contribute to qualifying this effort.

Key words: evaluation, assessment, geographical education, school geography, lower secondary School, in-service training, Denmark

Introduction

Danish school geography these years is in a position of uncertainty as a consequence of a present debate on the quality of education in the Danish primary and lower secondary education. On one hand it is generally acknowledged that schools need to focus on and improve the quality of science education, because international surveys demonstrate that the level of Danish students' scientific literacy is too low compared with students' results in other countries. Different initiatives have been taken over the last couple of years to change this situation. National standards in every subject have been made, and the number of examinations increased. On the other hand, it seems to have been a shock for some politicians to realize that young people in Denmark in fact do have very little geographical knowledge. During some years now school geography has been a low status subject in Danish schools and that may be the explanation for this present situation.

There has not been a tradition in Danish schools for using systematic evaluation and assessment for many years. Assessing and judging the results of the education and the students' learning and knowledge has been handed over to the teachers, who themselves have had to make the decisions of how this had to be done. This situation is currently under change. Teachers now are being instructed to assess related to the national standards.

Evaluation and assessment in school geography: the situation of today

In the 'Act on the Folkeskole' (the Danish Primary and Lower Secondary School) the use and function of assessment is being described this way: "As part of the teaching, there shall be a regular assessment of the pupils' benefit from the teaching.

The assessment must form the basis of the guidance of the individual pupil with a view to further planning of the teaching.” (Danish Ministry of Education, 1996a, p. 12). This should indicate an already existing use of assessment in Danish schools, but the reality is that assessment and evaluation are treated in various and often random ways by the teachers.

Geographers dealing with school geography from an outstanding point of view agree this is a great problem for geography as a subject as well for the students in developing their geographical competencies. The problem seems to be connected to the content in the education of teachers where this theme is not properly dealt with.

It’s difficult to get a clear picture of Danish school geography as it is practiced. It is also complicated to get an overview on the way teachers are handling evaluation and assessment in this subject. That’s the reason I decided to conduct a survey focusing on this theme (Moller, 2004). Results from this will be given below.

GeoGlimt: a survey on evaluation and assessment in Danish school geography

‘GeoView’ is the translation of the title of the survey ‘GeoGlimt’ into English, meaning a modest glimpse on geography. It turned out that only sixteen teachers returned the questionnaires so it has been unrealistic to make statistically satisfying conclusions about the situation for school geography in Denmark in general. Therefore only qualitative statements from the participating teachers are summed up in order to illustrate some of the circumstances geography is dealing with.

The intention of this survey was to get an overview of different aspects in relation to evaluation and assessment used in geography education in primary and lower secondary schools in Denmark. The outcome was to be able to return recommendations to the teachers. The aspects selected to be focused on were (1) how evaluation and assessment is practiced in school geography, (2) the methods used for evaluation and assessment, (3) the view on evaluation and assessment, and (4) an identification of problems, difficulties and possibilities related to the work with evaluation and assessment.

Before looking at the results of the answers given in relation to the first focus it’s necessary to understand the teaching concept used in this survey. Teaching is understood as a four step process in relation to any lesson or project: (a) working out aims based on the curriculum as well as the students qualifications, (b) planning the way the teaching has to be carried out in order to reach the aims (selection of books and other educational materials, organisation of the way the students have to work, agreements with colleagues about cooperation, information to parents, etc.), (c) the education (the students’ work), (d) evaluation of the three former steps. The students’ work is thus described as part of a learning process or simply learning, and the purpose is to acquire knowledge, skills and competences.

Although teachers generally should work out education aims not all of them do it and not many of them do it before each lesson or project, and the national curriculum is only used now and then.

The teachers surveyed seem to evaluate the education formative in some extent, and when it takes place it is often carried out unsystematically. When summative

evaluation is done it normally involves assessment of the fulfilment of education aims. The reason for assessing students' fulfilment of learning aims is explained in two ways: primarily, the intention is to give the teacher information about his or her teaching in order to be able to develop it over time, secondly, it is to get an overview of the students' learning process and their achievement of knowledge.

In the Danish geography curriculum a series of education standards are described. The GeoGlimt survey asked the teachers how much they integrated these standards into their teaching, with about half of the teachers answering that they never did. The other respondents reported that they used the standards now and then in their teaching.

The methods used for evaluation and assessments are almost unsystematic and based on informal conversations with the students. Tests are very seldom used whether it is for the evaluation of teaching or assessment of learning. A large majority of the teachers believed that an obligated summative assessment at the end of the geography study will raise the quality of the education in general and the students' commitment to and interest in geography.

It is remarkable that in spite of the fact that evaluation and assessment are not systematically carried out there appears to be a common understanding amongst teachers that evaluation and assessment are necessary, important, and useful for the development of quality of geography education in school.

The implementation of evaluations and assessments in the Danish teaching culture seem to be difficult because of the teachers' uncertainty about doing evaluation and assessment. These problems are primarily caused by the fact they have never been trained to evaluate and assess and therefore do not know technically what to do. The teachers themselves say they need help and support if evaluation and assessment is to become an integrated part of their professional work.

Geography: the substance of evaluation and assessment

School geography seems to have a low status in many countries all over Europe these years, and this is also the case in Denmark. That is a problem for the subject itself and for geographers and others. In particular, those who find geography of great value as a contribution to children's' and young people's development as democratic, responsible, caring, and well informed citizens in the local, national, and global world are troubled by this.

In addition to this, it is difficult for teachers and others to decide the essence in geography, when low status leads to low levels of knowledge about school geography. Knowing what geography is and is not, and what is of importance, is necessary if you're teaching this subject. This fundamental understanding of geography will be an initial requirement needed to deal with evaluation and assessment of the subject. Today the aim of geography education is described this way:

“It shall be the aim of the teaching in the subject of Geography that the pupils acquire knowledge about and an understanding of the natural and cultural prerequisites for the conditions of life in Denmark and in other countries as well as of the societies' exploitation of the natural basis and resources.

The teaching shall build on the pupils' own observations, experiences and investigations and on geographical sources so that they develop and interest to improve their knowledge about the surrounding world on their own.

The teaching shall further the pupils' understanding of foreign cultures and give them the opportunity to develop commitment, independent attitudes and responsibility in relation to problems regarding the exploitation of the natural basis, resources and the culture-created surroundings and the consequences for the environment and for the conditions of life." (Danish Ministry of Education, 1996b, p. 43)

Geography education takes place at 7th to 8th level in primary and lower secondary education for pupils thirteen to fifteen years old, and in a few years time it will also be at 9th level (fifteen to sixteen old pupils). At 1st to 6th level (up to thirteen years old) geography is taught to pupils together with biology, physics and chemistry, integrated in the subject science. The consequences of the introduction of standards in Danish schools is still too early to describe, but there is an increasing awareness are present among teachers and geographers in general of the problems created by changing teaching from a focus on the essence of the subject to a dependence of the standards. Focusing on the purpose or the intention of teaching geography, it is important to define the geographical competences and then place this concept in dialogue with the concept not well known in Denmark: geographical literacy.

The conclusion reached is that the competence concept is much wider than the literacy concept. Where geographical literacy demands geographical knowledge, skills, and use of geographically working methods, geographical competence in addition includes the capability of critical reflection on the elements that geographical literacy demands, together with the ability to act in daily life as an independent and democratic citizen. Of course this influences the geography education in the two cultures of educational thinking, and is directly illustrated in the difference in evaluation and assessment traditions.

Supporting students in developing geographical competences, teachers have to involve their active participation in their own learning process. It's not sufficient just to help them in identifying their learning results in geography education such as how good they are in solving standardised multiple choice tests or delivering factual knowledge. Teachers have to create frames or conditions for the students working in geography, so they will be able to handle public matters of current interest and relevance to the students by using geographical knowledge and methods. Students need to experience that geography education is not only a matter of reaching standards. They have to learn by experience how they can use geographical knowledge to make decisions based on critical assessments so they're capable of analyzing and understanding how people lives their lives in interacting with each other and the local and global environment.

The development of the use of assessment and evaluating geography education takes place by working with the process. Assessment and evaluation relevant to supporting teachers is necessary in their efforts to qualifying to teach geography, and also in helping the students in developing their own geographical competences. Standardized evaluations and assessment systems only gratifies external interests,

such as for example politicians and parents, but it is no guarantee to create a better education.

Recommendations: evaluation and assessment in Danish school geography

Evaluation and assessment in geography education should be looked at as an integrated part of the evaluation and assessment culture in any school. Teacher education and in-service training should support teachers by concentrating their focus on some divided areas of interest for the success and quality of geography education, namely:

- (1) the school management (management style, etc.)
- (2) the school geography (conditions, resources, etc.)
- (3) the geography teachers (education, competences, in-service training, etc.)
- (4) the geography teaching (aims, teaching methods, etc.)
- (5) the evaluation and assessment work (research methods' and design, etc.)
- (6) evaluation of the geographical teaching (purpose, relevance, information, etc.)
and
- (7) assessment of the students' benefit from the geography education (self-evaluation, etc.).

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The Relationship between Geography and Other Disciplines in Spanish Higher Education

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Abstract

The training of the professional geographer is one of the great challenges before the convergence arising from the Bologna Agreement, in a Europe with borders that are more and more diluted. In this context, it is necessary to return to think how to develop studies of Geography that give answer to this challenge. In recent years, Spanish Geography has moved away from disciplines that were their essential tools. In front of a formation more and more specialized, with a clear vocation towards the territorial planning, I believe that Geography must recover its character and again places concepts in front of the technological development.

Key words: Professional geographer, Bologna Agreement, interdisciplinary studies

The process of “European convergence” for Spain

If we accept that modern Geography was born with Humboldt, we can also say that Geography is the process of convergence of different disciplines and sciences. Without making history of the geographic thought, from that naturalistic birth of Geography, and with figures of reference like Ratzel or Vidal de la Blache, to mention only two, Geography is elaborating a complex theoretical body of knowledge, in which one thing was always clear, or seemed to be, that Geography was a discipline or science – I do not want to introduce that controversy, where geographic concepts converge – many of them adopted and transformed, and those that have arrived from outside.

Although Geography was born basically like a discipline into the hands of the naturalists, the first class of Geography in Spain, appeared at the end of the 19th Century, in the faculties of Philosophy and Letters, and thus it has always stayed there, although it is common that in the studies of Geology there are also classes of physical Geography, taught usually by geologists. During the second half of the 20th Century, university Geography education was changing (Valenzuela *et al.*, 2004) from humanistic studies – where the future geographer had classes of Latin, Philosophy, Language, Literature, History, Geography... to studies much more specialized, as they are the new curricula of 1993, in which for the first time a Geography degree appears with broken links to the other humanities.

It is possible to say, in its institutional birth, the Spanish Geography left one of its fundamental bases, the natural sciences, when it had been taken into the humanities schools. Even Physical Geography and its different branches (Geomorphology,

Climatology, and Biogeography, to indicate a few) were lost. The influence of French Regional Geography (Vidal de la Blache) affected Spanish Geography during the second half of the 20th Century.

During the 1980's, in my opinion, there was an important change in the mentality of those in universities, as well as in society as a natural consequence. Greater specialization, adapted to the new times and a more specific labour demand influenced each other. The answer to this is demonstrated in the new curricula, which is much more fragmented. From the Geography and History degrees (with three common years and then two of specialization in which it was possible to be chosen by: Geography, Ancient and Middle Ages History, Modern and Contemporary History, History of Art and Prehistory and Archaeology), came three new degrees (Geography, History and History of Art), without common bridges or classes. For example, in Geography there were no longer studies of History, not even a general history of Spain. There were similarly no studies of History in History of Art or Geography in History either.

The definitive rupture of the Humanities is now delivered in this way, at least in university education. However, almost in a contradictory way, there has now appeared, for the first time in Spanish university history, a Humanities degree. This, in general, is a reminder of the old studies in the faculties of Philosophy and Letters. This degree has not had much take-up; it has been developed only in few universities and it has been seen, by many, as the kind of degree for those people who want to do something at university, but without an aim or certain career. It thus has developed as a kind of "general culture" degree.

It is necessary to also say that the reforms of beginnings of the 1990's implied an important formal transformation in Spanish universities with an atmosphere of wide debate in the academic world. Semesters were introduced as the organizational form, as opposed to annual classes; European credits would be the measurement system; the Erasmus program filled our classrooms with university students from other countries and allowed mobility for many Spanish students, Europe began to be a different reality. This "formal transformation" however was not accompanied by a parallel process of educational renovation. In many cases, the old annual classes were divided into two, I and II, and in others, the programs were reduced. But the old formula of the class based on the skilful lesson of the professor, stayed almost intact. This has been lost time when reform might also have included renovating the learning and teaching approaches.

The professional geographer and the interdisciplinary sciences

The new reforms impelled by the process of "European convergence" force us to open the debate about educational innovation. At this moment, the proposal of the Spanish **Consejo de Coordinación Universitaria** (Council of University Coordination) reduces the number of degrees by half, from over 140 to little more than 70. Some of the new degrees will disappear, as is the case of the Humanities, and in others they will become combined (History of Art would become united to History). Geography is not affected, but the proposal made by the Spanish geography departments (led by the Association of Spanish Geographers -AGE) to create a degree in

Geography and Territory Planning has not been accepted. The Geographers White Book with this proposal can be seen at the web page of the **Asociación de Geógrafos Españoles** (<http://www.ieg.csic.es/age>).

In addition, thinking about the classes in ECTS terms appear to be a great opportunity to renew our lessons and to exile for ever from the Spanish universities that “contract” by which the professor arrives at the classroom and speaks and the students write. Or alternatively they do not write, nor do they attend the class but later on they copy notes of their companions. This reform is a difficult task because there are already groups of professors and students fighting against the “capitalist globalization” that they say is meant by the Bologna process.

Since the 1980’s the general aim was for Geography students to participate as active agents in land use management and to learn many techniques; but most of the time, their career aspirations were limited, once they completed their studies, to entering companies of automatic cartography and GIS, where they would spend most of their time digitizing in front of a computer screen. Were their studies necessary for this? Land use planning is, basically, in the hands of architects, and geographers and is carried through work delegated by them. For that reason the proposal of the Association of Spanish Geographers in the White Book did not have a favourable echo from the authorities. It is not difficult to guess that the group of architects carried much more social weight than that of the geographers. This therefore reflects to the question of how the new studies adapt and prepare students for the labour market.

I have the impression that, from an ideological perspective, the situation of geography as a subject is very serious. Spanish students of Geography seem to be losing any critical perspective. The disciplines that, traditionally, contributed with their content and ideas to the geographic task are no longer linked. Geography seems to no longer concern itself with major issues. For example, it is interesting to observe in the Spanish bibliography that geographers are rarely represented in discussing questions like the problem of the nationalism or the conflicts and wars of recent years. Without a historical or economic perspective it is impossible to make a correct geographic analysis. But instead it is the sociologists, and anthropologists who are occupying the spaces that geographers have left empty. So we should ask why geographers in Spain no longer concern themselves with places where previously we had much to say.

The professional development of the geographer is thus one of the great challenges that we face in the new common Europe, for that reason our reflections must consider the history of the discipline and what we can offer to society. On one occasion, Professor Emilio Lledó said, in reference to the technological progress and the role of Humanism:

“(..) La transformación y agresión que la naturaleza sufre, debida a ese progreso tecnológico, es tan grave que la fundamentación del un humanismo renovado tendría que partir de esa situación. Basta leer la prensa diaria para percibir, claramente o entre líneas, los múltiples problemas sin solucionar que arrastra el logro, más o menos aparente, de ciertas parcelas del llamado “bienestar”. Esta palabra supone una doble vertiente: por un lado se refiere a la gratificante instalación de nuestro cuerpo en un espacio adecuado y, me atrevería a decir, fraternal. Pero,

además, supone el goce capaz de asimilar esa instalación, aprovecharse de ella, vivir con ella y, en casos excelentes, crear desde ella. Y este sentimiento sería imposible si supiéramos que el estar de ese bienestar, el lugar real o ideal en el que se despliega la vida tiene sus días contados, y que esa proliferación de medios técnicos lleva consigo la implacable contradicción de destruir la base de un estar natural sobre el que necesariamente ha de asentarse toda forma civilizada de bienestar”¹ (LLEDÓ, 1998, 20)

At heart, the creation of The Archipelago of the Humanistic Thematic Networks groups eighteen higher education thematic networks that are registered under the common idea of Humanistic Arts and Sciences is not only an answer to the Bologna declaration, but it also tries to go further on, looking for common or complementary spaces that have always existed as those that would not normally be able to exist. Therefore, it is not only professor Lledó who calls us to think of the world before technological development, but that most of us also are conscious of the permanent aggressions that nature suffers and of the necessary answers to this. Geography has the forms to analyse, to describe and to denounce those processes, as well as to look for solutions. But from my “old fashioned” concept of Geography, I understand that it is not possible to do this with the training that we are currently giving to our students in university. Thus, in the main, techniques classes are the foundation on which Geography is constructed, therefore, they must occupy a central position in the curriculum; only then should Geography be concerned with subjects of a general or regional character, where Spain, Europe, Latin America, or other places are shown, though they must not be devoid of scientific foundation. The classes on geographic thought, often considered “useless” by students has led to an inversion of values, where the thought, the conceptual bases ought to be left is dazzled by the new technologies. Many years ago, the first thing my professor who was going to give us the class of “Techniques in Human Geography” said to us was: “the techniques are tools at the service of an idea or a concept”. Today, our students reject the ideas and the concepts and only remain with the techniques.

Why has this inversion of values taken place? I believe, sincerely, that it is the result of our bad understanding of the impact of the training and specialization of the new geographers. When we compare Geography to other disciplines, the geographers seem to have simply become technicians at the service of other professionals, who are in turn, replacing them when considering spatial or land use terms. If that is what

¹ “Nature suffers transformation and aggression because technological progress and it’s so serious that the basis of a renovated humanism should have to begin from that situation. It is enough to read any newspaper to understand, clearly or between the lines, certain parts of usually called “welfare” have created too many problems without solutions. This concept has two ways: our own situation in a very suitable place, even fraternal. But in addition, it means the enjoyment able to assimilate that situation, to take advantage of it, to live with it and to create from it. And this feeling would be impossible if we knew the *welfare*, the real or ideal place is almost in its last days, because the proliferation of technical instruments carries itself the contradiction for destroying the natural site which is the necessary base for any civilized form of *welfare*.”

we wished, of course we have obtained it. Nevertheless, I think that this, in general, has been a mistaken development of the curricula which has led to these results. It is necessary consequently to return to thinking about the basic concepts of Geography and on the position of the discipline, and the Humanities in general, in providing for the needs of the world. Hence I propose a revision that leads us to analyse the relationship of Geography with other sciences and other disciplines, because only then will the geographers be able to offer to society something truly excellent, beyond “degree courses” where geographers can compete in the labour market.

If we consider the traditional definition of Geography as the study of the relationships between human beings and the means with which they live, we would provide a perfect account of the wide range of knowledge and complex relationships that are necessary to make economic, political or social decisions, or we would not have the global vision necessary to act suitably on that space. This does not mean that the studies of Geography must turn into an amalgam of diverse classes coming from different specialties. It means, simply, that the geographer in training for professional futures must recover the capacity for synthesis from different perspectives that traditionally has characterized the discipline. Without this we will be resigned to our own idiosyncracies. The adoption and application of sophisticated and novel techniques will dominate rather than maintaining their place at the service of ideology, as understood in the wide sense as provided in the Dictionary of the Real Academia Espanola, “Conjunto de ideas fundamentales que caracteriza el pensamiento de una persona, colectividad o época, de un movimiento cultural, religioso o político, etc.”².

Conclusion

Finally, it is worth considering the role of Geography in the education of other specialties. We must also think how to incorporate Geography into the education of other disciplines, due to its interdisciplinary characteristics. In some of the newer Spanish universities, the Humanities are comprised of the common heritage of all the students. In the same way, it is necessary to think that Geography can play a similar role. It is evident that for a student of Chemistry Geography may not contribute significantly, but there are many studies in which Geography can represent a basic tool. Without making a thorough analysis, subjects like History, Environmental Sciences, and Prehistory and Archaeology need of Geography as a tool. Geography thus becomes a way to break the disciplinary isolation that has resulted in higher education and more generally in a more and more technical society as a whole, where it seems that only very concrete studies have value. The education of the professional geographer is based in the modern, global and always changing world, but only with the right sort of training will we obtain optimal results. In order for this to take place, it is necessary to be open minded about what surrounds to us and what always has been common to geography. I would thus like to finish with words of Professor Pilar Toboso, the person in charge of the Congress that was organized in the Universidad Autónoma de Madrid on “Humanities and Investigation”:

² “Set of fundamental ideas that it characterizes the thought of a person, community or time, of a cultural movement, religious or political, etc.”

“La especificidad, la importancia, la necesidad social de las humanidades, a pesar de su escasa valoración social en estos momentos, fue expuesta a lo largo de las diferentes reuniones, tanto en las ponencias que se presentaron, como en los debates que siguieron, convirtiéndose en Congreso en un foro donde filólogos, filósofos, geógrafos, arqueólogos, historiadores, lingüistas, historiadores del arte, de la ciencia, algún que otro economista, etc., se reunieron durante tres días para intercambiar ideas, preocupaciones, inquietudes y propuestas, ya que de alguna manera todos los que ejercemos cualquiera de estas profesiones estamos metidos en una especie de “saco común”, cuando nuestra realidad es sumamente compleja, pues los saberes de unos y otros se complementan y necesitan; de ahí que antano todos se englobaran en ese ente común, denominado Facultad de Filosofía y Letras, de las que quedan pocos ejemplos (el de la Universidad Autónoma de Madrid es uno), la realidad actual es distinta y desde luego no tan simple. Son muchos los geógrafos, por poner solo un ejemplo, que se preguntan si sus métodos de “hacer geografía” no están más cerca de las investigaciones de un físico, que las de un filósofo o un filólogo, con los que sin embargo conviven física y administrativamente. Pero como señalaba anteriormente, la realidad es compleja porque si bien la afirmación que acabo de hacer puede ser evidente para algunos, no es menos cierto que las herramientas y los conocimientos históricos, por continuar con nuestro ejemplo, son también imprescindibles para un geógrafo.”³ (Toboso, 1998, 9–10)

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³ “The specific character of Humanities, its importance and its role in social necessities were expounded as much in presented papers as in debates, in spite of its little social evaluation, becoming the Meeting a forum where philologists, philosophers, geographers, archaeologists, historians, linguists, historians of art, historians of sciences, some economists... have met each other during three days to change ideas, concerns, worries and proposals, because, in some way, all of us are in a kind of “common basket”, when our reality is extremely complex, because the knowledge of ones and others are complementary and necessary; that is the reason long time ago all of us were together in this common place named Faculty of Philosophy and Letters, of which they are left few examples (the Faculty of the Autonomous University of Madrid is one of them), but the present reality is different and of course no so simple. There are many geographers, to take just one example, who ask if their methods and techniques “to make geography” are closer from a physicist than a philosopher or a philologist, why they live together with the last ones. But, I said it before, the reality is complicated, because that I just said is true for some geographers, to continue with our example, it is also true that historical knowledge and tools are both very important for a geographer.”

Why Managers from Multinational Companies Must Have Specialization in Geography

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Abstract

Many multinational companies make business in different regions in the world. In this way they prevent risk from making business in only one geographical market. Many multinational companies have a geographical organizational structure. They work with people from different cultures, religions and economies and that is a holdback to development of this companies. Many of them want to know the spatial behavior of their customers. Those are the reasons in brief which makes us consider that managers must have specialization in Geography.

Key words: Geography, Geographical organization structure, Managers, Culture, Religion, Spatial Behavior

We eat Mexican, Asian and Italian food. We wear shoes manufactured in Italy, shirts from Taiwan, jeans and trousers made in China. Most of the parts for automobiles are produced in Japan. Most of the multinational companies and to be more precise their enterprises operate beyond the borders of their own counties. Most of these companies operate on the different continents. In that way they escaped from the risk of operation on only one geographical market.

During the creation of the organizational structures of multinational companies, supporting the information is very difficult, because they come from scattered geographically decision making centers. Multinational companies usually used three main organization structures for overcoming this problem (Herbert, 1984):

a) production structures

Multinational companies used this structure, when its markets are distinguished by production lines in scattered geographically regions.

b) geographic structure

Multinational companies group all functional and organizational responsibilities by geographical regions. That is the "geographical design" and

c) functional structure.

There are many conflicts between the goals of corporations and the economic and political goals of the countries in which companies work. The effective international manager must carefully recognize and evaluate potential differences in culture, economy, policy and ideology. This provides opportunities for the development of courses and training in economic and political geography. On the other hand, the

recognition of the location and extent of natural resources of separated regions of the world in combination with knowledge in transport geography is precondition for good business. The former Soviet Union has a unique combination of natural resources and an advantageous geographical position and wide uncommitted markets. This is the biggest railway market in the world. It is for this reason for example that American companies sell in that market (Kvint, 1990).

When multinational companies evaluate the possibility for developing their business, they need to thrash out factors like: geographical position, language community, structure of population – ethnic, religion, age, education (Donnelly *et al.*, 1992). The following examples illustrate why we should know about stereotypes, particularity of language and ethnic structure and integrate them into training:

- the lemon spray furniture polish of S.C. Johnson & Son has very low sales in Japan. The population of the country does not buy sprays, because they think it smells like a W.C. disinfectant used in the Second World War. Once the company decreased the amount of lemon essence in the spray their sales increased (ibid).
- in Japan the Barbie doll of “Mattel, Inc.” does not have big sales. The reason was that the doll was too tall, too long-legged and it had blue eyes. After cosmetic changes – short body, brown eyes and an Asian figure, they sold 2 millions dolls in 2 years (Alden, 1984; Thackray, 1985).
- Coca Cola brand changed their name, due to the fact, that in Chinese it means “bite that wax tadpole”. “Coca Cola” marketing experts didn’t realise that few Chinese people speak English (Alden, 1984; Thackray, 1985).
- “Dunkin’ Donuts” realised that Japanese don’t like to eat doughnuts with sugar, so the company creates little doughnuts with little sugar (Kvint, 1990).

Many international managers didn’t understand the different specific cultural, language and ethnic characteristics of countries around the world. In that way we think that these mistakes can be prevent with help of geographical courses.

Linking business needs to Geography courses

Many companies before buying or building a factory are interesting in the structure of labour force in different regions. They are interested in sex and age structure of population now and in the future. From that future labour force depend of the company. On the other hand educational structure has an affect on possibility for hire highly skilled workers. Many of the companies want to know the spatial behaviour of the customers. A GIS course could help with this.

Ethnic structure is very important for defining culture particularity of labour force, because on that depend apposite decisions which managers take connecting with staff motivation. Although, there are specialists, whom companies take for educating managers, we think that the international managers must have good geography knowledge.

The religious structure of population is very important for business planning, goals and work of multinational companies. For example in Muslims countries, people think that destiny define their future, not the personal enterprise. That thinking is under the influence of religion. It is therefore important that companies should be

able to have training in different aspects of life, culture, social and political systems of the countries. Many mixed companies (40%), go bankrupt in the first 3–4 years (Karrigan, 1987). This is largely due to mixed management, different cultures and values systems. On the other hand effective management of multinational companies need managers who should understand the necessities and expectations of people in the different countries. Manager style and motivation methods in USA, Great Britain or Canada for example, will not work in Mexico, Africa or South America. People's needs vary in different countries. It is for that reason some companies create "culture camps" for managers. Within these camps, advisers train managers in cultures and traditions of countries. These advisers should be geographers. If managers have knowledge of cultural geography, geography of religion or ethnogeography, it will be easier for them to establish the necessary "cultural bridges" between business playmates. For example, there are many differences between eastern and western cultures. Individuality and straightforwardness are characteristics of western culture. Eastern culture appreciates belonging to and in society. They think that individuality hurts people and they don't demonstrate anger (Rapoport, 1990). When businessmen from the East want to make business, they asked for the families of their partners first. In contrast to Western culture, in the East to be late for an appointment is not a big problem. In many cultures everything is family, not the prosperity.

These are some of the reasons for our thinking, that good managers must have specialization in geography. Only geography can give them this knowledge. We thus consider that it would be useful to create a course "Geography for Managers". There we could include such subjects as: Business Geodemography (Slaveykov and Iankov, 1997), Geo-marketing, GIS, Physical geography, Human geography, Ethnogeography, Confessional geography, Social geography, Economic geography and others. This course could be developed to suit different regions in the world, such as "Geography for European Managers" or "Geography for Asian Managers". Alternatively individual courses for specific company needs could also be created.

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A multilevel approach to professional development The example of the Department of Human Geography and Planning in Utrecht

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Abstract

This paper discusses various aspects of professional development at the Department of Human Geography and Planning of Utrecht University. The multilevel approach proves to be successful one, as was experienced during the introduction of a new curriculum, necessary because of the introduction of the bachelor/master system. An intensive exchange of ideas on different levels, the availability of professional help, and a tradition of innovations led to a relatively smooth transition.

Key words: multilevel approach, professional development, curriculum change, bachelor/master

Introduction

Professional development of academic teaching staff is a major issue in most European universities. The reasons may be internal (the raised awareness of the importance of high quality teaching; critique from students about teaching practices) or external (accreditation criteria or ranking exercises; competition for students), and will generally be a mixture of internal and external factors (Qanu protocol, 2004). Professional development of academic staff includes many aspects, ranging from enhancing awareness of teaching or assessment strategies, via skills in the use of new technologies in teaching and learning, to a sense of joint responsibility of staff for a complete course or curriculum. Incentives and policies for professional development include national guidelines, university-wide teaching and learning strategies (see for example Gibbs and Coffey 2004) and departmental policies.

Professional development in the field of academic teaching is always under pressure in the research-intensive and generally ill-funded academic context. In this paper, we discuss the multilevel approach to professional development in Utrecht University, using Human Geography and Planning as a case study at the departmental level. We believe that consistent and mutually reinforcing professional development policies at all levels, from the institutional level to the levels of faculties, schools, staff teams and individual staff members, are the most promising way forward, although the pressures of justified research orientation and lack of (financial) resources will always pose a threat to teaching quality.

Context

Utrecht University is a large, classical university with a wide range of courses and approximately 25,000 students. Its schools and research institutes are embedded in seven Faculties, one of which is the Faculty of Geosciences. “Human Geography and Planning” is one of the four departments of this faculty. This department is among the largest of its kind in Europe, with roughly 750 students and a scientific staff of about 40 full staff equivalents (fse). The Faculty of Geographical Sciences as a whole has a scientific staff of 172 fse (apart from 106 fse PhD students) and about 1,950 registered students (2004). The Department of Human Geography and Planning offers a three year bachelor programme and eight Master’s programmes. The main fields of specialization are urban geography, economic geography, regional geography, international development studies and GIS/cartography. Research is concentrated in the Urban and Regional Research Centre Utrecht (URU). Most staff time is spent on teaching.

About ten years ago Utrecht University started to counterbalance the traditional policy focus on research and to give more weight to teaching and learning. It was decided that everybody involved in teaching and learning should have a teaching qualification (either a junior or a senior qualification, see Keesen and Vermeulen 2005). The university board also started a policy of more flexible career paths, including more and better career possibilities for staff members who mainly spend their time on teaching. The Board also started annual university-wide conference days exclusively dedicated to issues of teaching practice, that by now have become a ‘tradition’ in the university.

These decisions revitalised the role of the Faculty Development Department, which is part of the wider University Centre for Teaching and Learning (IVLOS). This Centre plays an important role in qualifying the teaching staff and improving their skills. They offer a wide set of courses that can be attended by staff members on a voluntary basis. For new teachers some of these courses are compulsory, in order to get a junior teaching qualification. For all university teachers IVLOS offers ‘personal consultancy’, which means that everybody involved in teaching can ask for advice in the design or daily practice of courses, including observations and advice in a classroom situation.

The Department of Human Geography and Planning has a long tradition in improving its curriculum and course modules. Part of this tradition is the overall attitude towards teaching: it is considered as normal (although not always welcomed) that the staff are stimulated permanently to improve their skills as teachers and their courses.

Multilevel approach to professional development

We now want to discuss aspects of professional development at various levels in Utrecht University: at the level of the university as a whole, at the Faculty level, the level of the School of Human Geography and Planning and finally the level of deliberation among peers (staff). This short paper does not allow us to discuss the role of students, directly and indirectly, nor will it be possible to elaborate all the instru-

ments used, at the various levels, for professional development. The final discussion will be about the mutually reinforcing effects of the policies at the various levels, as well as about some of the opportunities and threats for professional development in the future.

a) University level: the Centre of Excellence in University Teaching

In 2000 the university formed the Centre of Excellence in University Teaching (CEUT). Each year about fifteen promising teachers with a (future) role in management are selected from nominations by the deans of all faculties. The CEUT-training lasts one and a half years, with monthly 24 hour meetings, an individual project and two study trips abroad.

The idea is that the participants will function as boosters of innovation, and apply their skills in their management functions. Three members of the department of Human Geography and Planning have attended this course so far. Their individual projects have been about the improvement of the course evaluation system, the set-up of an academic Masters, and the introduction of timesaving assignments (for teachers). According to their experience they really can play a key role in innovation and management. The multidisciplinary character of the CEUT course group is highly appreciated, especially the exchange of experiences and the sharing of daily problems in so called intervision groups.

b) Faculty level: Honours programme

As one of the leading faculties in the Netherlands an honours programme was introduced in 1997 for students with ambition and good results (see Wolfensberger, Van Eijl and Pilot 2004). For this group of students the standard curriculum is not challenging enough, and leaves enough time for extra courses. Within a framework of regular meetings, supervised by a staff member who is coordinating the Honours Program, students organise and attend four extra courses or workshops each year. At the end of their bachelors program they get a testimonial on this. Before the honours program started we had the impression that some of the best students switched to other studies; now we keep them on board, and some of them go on to do their PhD after graduation. The honours program provides an opportunity for teachers to launch new methods or subjects to an interested audience. Vice versa the motivated group of honours program students have sometimes indicated that some elements or subjects are missing from the basic curriculum.

c) Level of the School of Human Geography and Planning: Yearly staff meeting

Every year in February the curriculum for the next academic year is discussed on 'Teaching and Learning Day', organised outside the university buildings. On this day all kinds of practical information is provided, but most of the day consists of workshops, dedicated to several themes. The social element (drinks and dinner) is also important. Almost all the staff is present, accompanied by about fifteen students who participate in the management team and several committees dealing with education.

Typical is the very open atmosphere during discussions, and the good relationship between staff and students. The very active student organisation for geographers, which organises many social and scientific events during the year, has been successful in bringing staff and students together. Many staff members were active in this organisation during their studies.

d) Level of the staff as a network: Good practices and regular lunch meetings

Each 4–6 weeks during lunchtime a meeting for the teaching staff is organised, where good examples of innovations are shown and discussed. On average about fifteen teachers attend these meetings, and experience of these presentations of ‘good practice’ has been stimulating. Subjects that were discussed are: peer-assessment, the use of e-learning, student-led excursions, student-led seminars, alternative writing assignments, experiences from Canadian geography departments.

Evaluation and discussion

The introduction of the bachelor/master system in 2002 is a good example of using the opportunities of different levels to change the curriculum. Utrecht University chose to introduce a curriculum model based on small scale education (classes with 25 students), active learning, and multiple assignments that would make it possible for students to compensate bad results during courses; this was necessary because resits were abandoned.

The yearly staff meetings at the level of the Department were not only important to inform the staff about all these changes, but made it possible to approve a new curriculum that was acceptable to most staff members. The university, by means of IVLOS, provided tailor-made courses that were helpful to modify the design of courses. Staff members appreciated the ‘down to earth’ approach: not too much theory during these courses, but a focus on training new techniques during ones own courses. Teachers with special wishes asked for ‘personal consultancy’ by IVLOS. The university-wide conference days were useful to exchange ideas with university teachers from other disciplines.

After the introductory phase of the bachelor/master system several problems occurred. An increase in the number of assignments caused an extra burden for the teaching staff. Students complained about the lack of variety in assignments, teachers about the low quality of work and the extra work-load. In the same period staff reductions due to cost-cutting measures were necessary. This led to intensive discussions within the staff (during the regular lunch meetings), but also with the student organisation. The result was a mutual effort of staff and students to investigate alternative assignments, led by one of the teachers who had attended the CEUT-course.

The general picture of professional development at the Department of Human Geography and Planning is positive, but some final side-notes can be made. There is a discussion about costs and efficiency of the CEUT-course. It costs about 10,000 euro per person, to be paid by university and faculty on an equal basis. For our faculty with two participants each year in the CEUT-course this means about 15 percent of the total budget for training. For the same amount of money more teachers could

profit if the course was shorter. Some elements of the course should be compulsory for everybody involved in university education, and several guest speakers deserved a larger audience.

The turnout at the regular lunch meetings on Departmental level could be higher, and there is a trend of declining attendance. It takes a lot of effort for the organisers to keep the spirit alive, in a time of staff reduction. At the moment contacts between the four departments of the faculty on innovation and curriculum improvement hardly exist. There are regular meetings of the Directors of Education, but their discussions are mainly about technical and organisational affairs. But in general we experience that the multilevel approach is a right way to improve the quality of staff and curriculum. The opportunities given by the university and the faculty meet with a wide response at the level of the department.

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Times of Change for Geography Education in Slovenia

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Abstract

The article presents the actual situation of geography education in Slovenia from the viewpoint of many of the rapid and profound changes we are dealing with nowadays. The feasibility and structuring of professional development, formal and informal relations that might enable professional development and the identification of ongoing needs for geography teachers are discussed. It also questions the changing identity of academic geography within the restructuring of work and the tensions between teaching and research.

Key words: geography, teacher, education, student, Slovenia, knowledge, skills, practice

Introduction

Together with Europe Slovenia has recently undergone many rapid and profound changes. Every nation, region and city has to face challenges arising from the differing needs and expectations. Differences in culture, in behaviour, in values and standards do not have to conflict but lead to enrichment and strengthening of a society.

Geography as a field of study is at an interesting stage of development in Slovenia. When seeking to provide descriptions and comparisons of systems, it is important to create a dialogue about the social, economic, political and cultural contexts within which geographical studies occur. Most studies of geography have been narrow in their focus, concentrating on issues of developing content and curriculum, without reference to context.

At the forefront of change geographical education should involve the study of sociological, psychological, political and cultural aspects of learning and teaching geography. Students should have the opportunity to develop their own knowledge, skills and confidence in ways increasingly emphasised for employment in geographical education-related occupations. Therefore the teacher training should follow students' personal interests about the nature, purposes and contents of education, and equip them with a set of transferable skills. (Resnik Planinc, 1998, Resnik Planinc, 2001)

School Geography in Slovenia

Geography teaching can contribute a lot to knowing and understanding people and places, although research shows an alarming situation in geography teaching and knowledge all over the world (Haubrich, 1998, 106). The recent changes and development of Middle, South Eastern and Eastern European countries are the

result of European integration and globalisation. From the geographical standpoint these processes and changes demand immediate action regarding the creation of new curriculum structure and contents.

The concept of traditional geography with its division into general and regional geography is the basic characteristic of the geography syllabus and the entire geography curriculum in Slovenia. Since the attainment of independence the educational system in Slovenia has changed. The basic changes began with the reform of the previous 8-year primary school system. As a candidate for the European Union Slovenia was required to carry out several reforms that renovated the school system in order to move closer to the school systems in other European countries. Slovenia decided to have 9 classes in primary school. The reform project started in 1999 and is still in progress. Geography contents are involved into syllabi from the first grade, while geography as an independent subject begins in the sixth grade. In Table 2 a distribution of geography contents from sixth to ninth grade is presented.

In Slovenia the syllabus for grammar schools was reformed in 1998. Geography became a subject which should help young people to acquire the knowledge and skills needed for the understanding of the global world (Table 3).

General geography, which includes both physical and human geography, is taught in the 1st grade of grammar school and in the first two grades of secondary technical schools (by using practical examples). Its structure is comparable to the scientific approach adopted by university study

Table 1. Simplified version of school system in Slovenia

TYPE OF SCHOOL	AGE GROUP	CLASS / GRADES
primary school	6–15	1–9
secondary vocational schools	15–17 (18)	1–2 (3)
secondary technical schools	15–19	1–4
grammar school	15–19	1–4

Table 2. Geography content and the number of geography school hours per classes in 9-year primary schools in Slovenia. (Geography Syllabus, 1998)

CLASS	GEOGRAPHY CONTENT	SCHOOL HOURS
6th	The planet Earth	35
7th	Regional geography of Europe and Asia	70
8th	Regional geography of America, Africa, Australia and polar regions	52
9th	Slovenia – our homeland	70
All together		227

Table 3. Geography content and the quantity of geography school hours per grades in grammar school in Slovenia. (Geography Syllabus, 1998)

GRADE	GEOGRAPHY CONTENTS	SCHOOL HOURS
1 st	General geography	70
2 nd	Regional geography of the world	50
3 rd	Regional geography of Europe and Slovenia	50
4 th / not obligatory	Slovenia + final exam preparation	40 + 35 (general examination)
Total		170 or 245

where it is divided into specific branches, such as geomorphology, waters, climate, soils, biogeography, population, settlements, economy etc.

According to the national curriculum regional geography is taught in the 6th, 7th and 8th class of primary schools and in the 2nd, 3rd and 4th grade of grammar school. On the primary level regional geography deals with the world, Europe and Slovenia very systematically. The whole system of general geography reflects in the approach to all continents, Europe and Slovenia. In grammar schools regional geography of the world, Europe and Slovenia becomes more thematically oriented (problem-solving approach, case studies, practical examples etc). To a certain extent regional geography is also part of the geographical syllabi for vocational and technical schools.

The basic frame of regional geography in schools is to know the Earth, its continents and their smaller units – regions. This concept of regional geography was established by Hettner in the 1930's. Although the description of individual parts of the Earth was suitable for those times it does not meet the needs of today.

Our understanding of the landscape with all the elements, mutual relations and processes is getting more and more complicated, so a description of the characteristics means a pure accumulation of more or less important facts. The results are that the textbooks have become increasingly encyclopaedic in nature and they promote ex-cathedra teaching otherwise teachers, according to their opinion, cannot meet the requirements of the syllabus. Consequently the knowledge of pupils and students is less and less appropriate for our time. (Popit, 2001)

Syllabus changes always raise difficult questions and comments relating to unnecessary content. How and what should be reduced is a growing dilemma not only in primary and secondary education but also in the university courses. This is the situation that Slovenian school geography faces and will have to deal with and find a solution.

Conceptual change should not lead to the complete absence of systematic approach to studying countries. A survey of some German, English and French textbooks shows that exemplar and thematic approaches to the problems of larger, more extensive and global meaning are often put forward (Popit, 2001). Consequently, a certain country or countries can be completely ignored in a syllabus or in a textbook. The result is a reduction in the comprehensive nature of the curriculum but an increase in depth of analysis. Because of the use of a limited number of themes that deal with a specific part of the world, teachers have to choose those which provide an extensive meaning according to the milieu from which the textbook or syllabus originates. So the attention might be given to the problems or examples of minor significance while the most important processes and phenomena remain unmentioned. Therefore, to develop important concepts of geography in education needs considerable cooperation between subject experts, researchers and authors from different countries. Only then will the result be a flexible and adaptable system that successfully introduces changes into syllabus, and provides an appropriate education of future geography teachers (Popit, 2001).

In current Slovenian textbooks a systematic division of Europe and the world is a basis for the structure of chapters while a chosen area is discussed **systemati-**

cally and problematically. If geographical studies aim to deal with the situation in Slovenia and Europe then teachers and teacher trainers should try to answer the following questions:

1. What kind of identity, regarding European citizenship, will pupils and students develop as the result of our education?
2. What will be the effect of a division of Europe into smaller, stereotypically described geographical units or regions?
3. Does a regional approach with a division of Europe into smaller units develop a notion of European dimension in geography teaching?

The answer to these is all but simple when teaching about Europe. The understanding of a space is a basis for the understanding of the world. And place cannot be understood separately from the world. Therefore the understanding of relations and processes inside a particular region and between regions on local and global level is more important than individual characteristics of geographical units of Europe or countries. Learning about the physical and human geographical characteristics of a geographical unit or a county soon leads to encyclopedical gathering of data and facts (Popit, 2001).

Instead of a small-unit-division the reformers ought to include the processes, which form and change places. The new paradigm of (regional) geography should thus be based on the concept of a place, while its object of conception is not a chosen region but a functional structure of a place or space.

We are convinced that the experts of individual fields, writers of syllabi and didacticians should make an arrangement about **the methodology**. A proposed **modernisation** of syllabi and educational aims also demands a modernization of textbooks and other teaching aids. Geography teaching has to make the contents interesting and offer new knowledge, experience and methods with real and applicable value. This, according to Petauer (2001), is the right way to develop intellectual curiosity and self-confidence among young people.

Geographical Education in Slovenia

Geographical education cannot sit back and relax as the world progresses. Those people who profess to be geographical educators must recognise that their future is not guaranteed. Reflection on past developments in curriculum will offer clarification of the roots of the field of learning. These are important, but they should be tempered by careful contemporary analyses of state of geographical education. As a result, close monitoring of other societal and educational policy developments should be considered in the formulation of insightful futuristic statements that offer directions for geographical education to follow in the coming years. (Gerber and Lidstone, 1996).

During the reform of geography curriculum in Slovenia different **competing tensions**, which had been already mentioned by Naish (1996), included:

- the call for an emphasis on basic skills, vocationalism and instrumentalism, versus the view of education as humanitarian, liberal and progressive, of intrinsic value in its own right rather than to be seen as preparation for the future,
- academic versus child centred education,

- traditional versus progressive approaches,
- didactic teaching versus enquiry learning.

According to Naish (1996) it is possible to categorise these tensions to propose various **concepts** of education. One such grouping of ideologies of education suggests four **main orientations** (McNeil, 1977, Naish, 1996), namely:

1. **Humanistic orientation**, which prefers a curriculum which will provide satisfying experiences for each individual such that the learner's natural ability will be nurtured. The emphasis is on the individual as a learner rather on the details of subject matter, the aim being to enhance personal development;
2. **Academic orientation**, which views the curriculum as a vehicle to introduce learners to the academic disciplines;
3. **Technological orientation**, which sets out to produce and achieve certain pre-determined ends. There is a strong emphasis on aims and objectives and the main purpose of the curriculum is to achieve these ends;
4. **Social reconstruction orientation**, which gives preference to the needs of society over the needs of the individual.

In Slovenia both academic and technological orientations are very much in the forefront of geographical education. This often leads to the socialisation of children into the norms and values system of the particular society in which they live. It would however be much better to regard the education as development, as suggested by Kelly (1990), in which the individual fosters her or his abilities, capabilities and understanding. The curriculum should thus enable and encourage students to recognise, explore, evaluate and, where appropriate, challenge all views of culture and all value systems.

It has to be accepted that whatever ideology of education one follows, education is “not a random or neutral process but purposeful and value oriented with” (Stanley, 1985, Fien, 1996). As Grant and Zeichner (1984) explain:

“There is no such thing as a neutral educational activity. Any action that one takes in the classroom is necessarily linked to the external economic, political and social order in either a primarily integrative or a creative fashion. Either a teaching activity serves to integrate children into the current social order or it provides children with the knowledge, attitudes and skills to deal critically and creatively with that reality in order to improve it.” (cited in Fien, 1996, 78)

In Slovenia geography education has had a proud **tradition and contribution**. The momentum must not be lost. Future decades will provide challenges which require an expanded and redirected application of the outcomes of geographical education.

Lidstone (1996) believes that geography teachers are proud inheritors of a vibrant and exciting discipline comprising scientists who are seeking ever new ways of telling the story of our world of change and teachers who must be allowed to exercise their wise and discretionary judgment of what is best for their students. Currently it seems that structural changes are placing such stress on teachers that they are no longer able to exercise that judgement about content and approach that makes them professional. Hargreaves (cited in Lidstone, 1996) explains that the struggle can be seen in teachers' roles in four main ways:

1. The teacher's role expands to take on new problems and mandates, although little of the old role is cast aside to make room for these changes.
2. Innovations multiply as change accelerates, creating a sense of overload.
3. Moral certainties collapse and our confidence in our mission and purposes begins to crumble.
4. The methods and strategies that teachers use, together with their underlying knowledge base are constantly criticised – even amongst educators themselves – as scientific certainties lose their credibility. Teachers then ask themselves “If the knowledge base of teaching has no scientific foundations, on what can our justification for practise be based?” (Lidstone, 1996, 153).

Conclusion

I consider that for the future development of school geography in Slovenia the following assumptions are important:

- the quick and effective flow of information,
- geography teachers will be better organised regarding contacts with other countries (through exchanges, personal contacts and exchange of materials),
- there will be vertical and horizontal flow of information between institutions,
- self sufficiency will be avoided.

One must agree with Lidstone that “our own search for knowledge and that which we encourage in our students should be directed towards regaining enchantment with geographical stories within the context of a global geographical culture. Only thus can we retain and renew our professionalism as geographers and geography teachers” (Lidstone, 1996, 161).

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The Evolution of a European Student Network

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Abstract

The European Geography Association is a European network of Geography Students and young Geographers, founded in 1988 by students from Utrecht, Warsaw and Barcelona. Today it has around 73 entities in 29 different countries. Its goals are to exchange knowledge and information between geography students and young geographers. To achieve these goals, congresses and exchanges are being organised and an Internet forum was created.

The aim of article is to find out how the EGEA network has developed. There is not a clear geographical direction in how the EGEA network developed but there are some striking blank spots on the EGEA map that can be explained by the local context of these countries. The Internet plays an essential role in the communication in the network, but to make receivers adapt the EGEA idea, face-to-face contact is more successful.

Key words: Geography, Networks, EGEA, Students Association.

Introduction

In the spring of 1987 a group of geography students from Barcelona, Warsaw and Utrecht met in Leon (Spain) to discuss the possibility of forming a European Association for Young Geographers. Its purpose would be to facilitate and improve the interaction and exchange of ideas, information and students, which was commonly felt to be lacking in the field of geography. In February 1989 the first EGEA Congress was held in Zaborow, Poland with 80 participants from 23 different universities. Sixteen years later EGEA has, according to the website, 73 entities in 29 different countries. Every year five official congresses are organised and many other activities. The EGEA network expanded and it shows great dynamism. The aim of this article is to trace the development of EGEA over the years. Which entities are and have been active in the network? Can a geographical pattern be identified? Which factors play a role in the origin of entities?

Networks

Hägerstrand described in his book "Innovation Diffusion as a Spatial Process" an innovation in a rural area in Sweden. Innovation adopters inform others in their social network in their proximity. In this way innovation spreads like an oil slick: contagious diffusion (De Pater 1996). Communication factors dominate the acceptance process. Critics pointed at the underestimated role of the adaptors (Blaut, Blaikie) and the local context. The importance of the local context is shown in the diffusion of the air conditioner, which was much more adapted in Texas than in Montana (Ormrod 1998).

With the ongoing development of telecommunication techniques the emergence of a 'space-less world' and the virtualisation of human communication were predicted.

By modelling the relation between telecommunication and face-to-face contact Gaspar and Glaeser (1998) showed that telecommunication is not a substitute but a complement for face-to-face contact and it can even increase the need for face-to-face contact. Besides the revolution in telecommunication the revolutions that ended the Communist era in Eastern Europe made communication and travelling between different European countries easier. The expansion and the integration of the EU continued. Student mobility increased enormously because of the Socrates and Erasmus programs. Because of fading borders, economic growth and European integration we might expect more mobility in the EGEA network. On the other hand, some destinations might have become less 'exotic' and new travel opportunities may compete with EGEA events.

Methods

To find out how EGEA (geographically) developed we wanted to know which entities were active during which period. This was researched by analysis of the participation of the Annual Congresses. The participation lists of the Annual Congresses provide a fairly reliable picture of entity involvement, although it is possible that an otherwise active entity is not able to delegate a member to the Annual Congress. It is also possible that individuals that participate in an Annual Congress, are not (yet) involved in other EGEA events. However, that said, the participant lists provide us with a sufficiently accurate view of the development of the EGEA network. Data available from other activities is fragmented and too specific to be used.

To say something about which factors and means of communication play a role in the expansion of the network we asked by email the entities' contact persons if they knew how their entity got involved in the network. 36 entities responded. In those cases of entities that have been reactivated, we used the information on how the entity was reactivated.

The European Geography Association

EGEA, the European Geography Association for students and young geographers, was founded in 1989 after the first congress. In 1992 EGEA registered in Utrecht as a foundation. The entities form the general board of EGEA. At the Annual Congress they appoint the Board of Executives. EGEA is divided in four regions; the Northern and Baltic region, The Western region, the Eastern region, and the southern 'Euromed' region. Every region has one regional representative chosen at the regional meeting during the Annual Congress. The four regional representatives form the Board of Executives of the EGEA foundation. They divide the tasks of chairman, secretary, treasurer and vice-chairman. The fifth member of the Board of Executives is the organiser of the Annual Congress of the next year.

The current entities are very different in age, size, and activities. The organisational structure of the entities range from well organised independent foundations

to entities with only one active individual, other entities are part of the local student organisation and some exist out of a small group of friends.

The main event of the EGEA foundation is the Annual Congress, usually taking place for six of seven days in September or October. The congress exists of workshops, excursions, presentations, parties and meetings. Since 1990 there was, besides the Annual Congress, every year a Western Regional Congresses organised. From 1997 also the other regions organised a regional congresses. Regional Congresses are smaller and one or two days shorter than the Annual Congress.

The other main activity organised in the network are the exchanges. Two entities visit each other for a week or a weekend. The host entity takes care of the program, food and accommodation. Other activities organised are the New Year Party, national weekends, and seminars. Some entities organise introduction and other activities for the foreign exchange (Erasmus) students at their Universities.

Today an important feature of the organisation is the website. On the extensive forum members stay or get in contact with each other, activities are announced and European issues are discussed.

The Annual Congresses

The general picture shows great dynamism in which entities visited the congresses. From 1995 till 1997 the total number of participants is relatively low (Figure 1). It does not necessarily have to mean that EGEA was smaller at that time. There could have been a maximum to the accommodation. But except for the last Annual Congress where over 300 people subscribed and where only 206 could be invited, we did not find evidence that people had to be rejected on a large scale in the past.

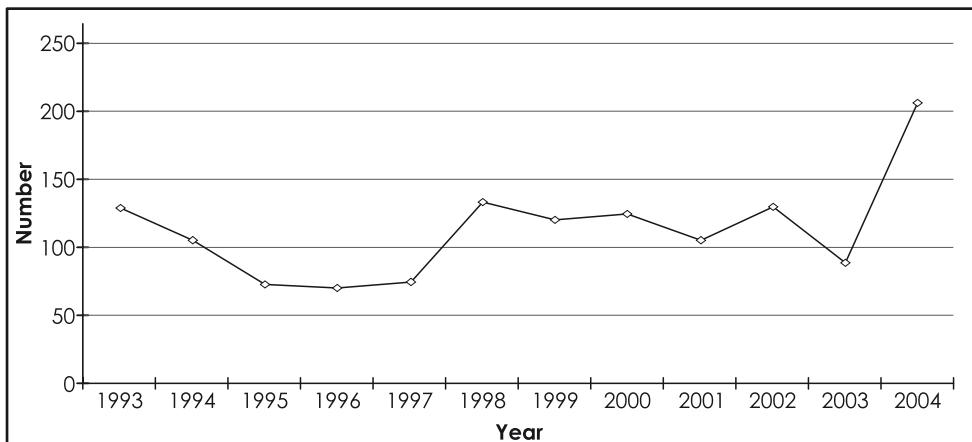


Figure 1. Number of participants at Annual Congresses

The EGEA entities from Amsterdam and Warsaw attended all 15 congresses (Figure 2) The data from the third Annual Congress in Rackeve, Hungary are missing and the data from Prague 1990 are a bit unclear. At the first congress we already had participants from 22 different universities. Figure 2 does not include the total number of participants from an entity present at a congress.

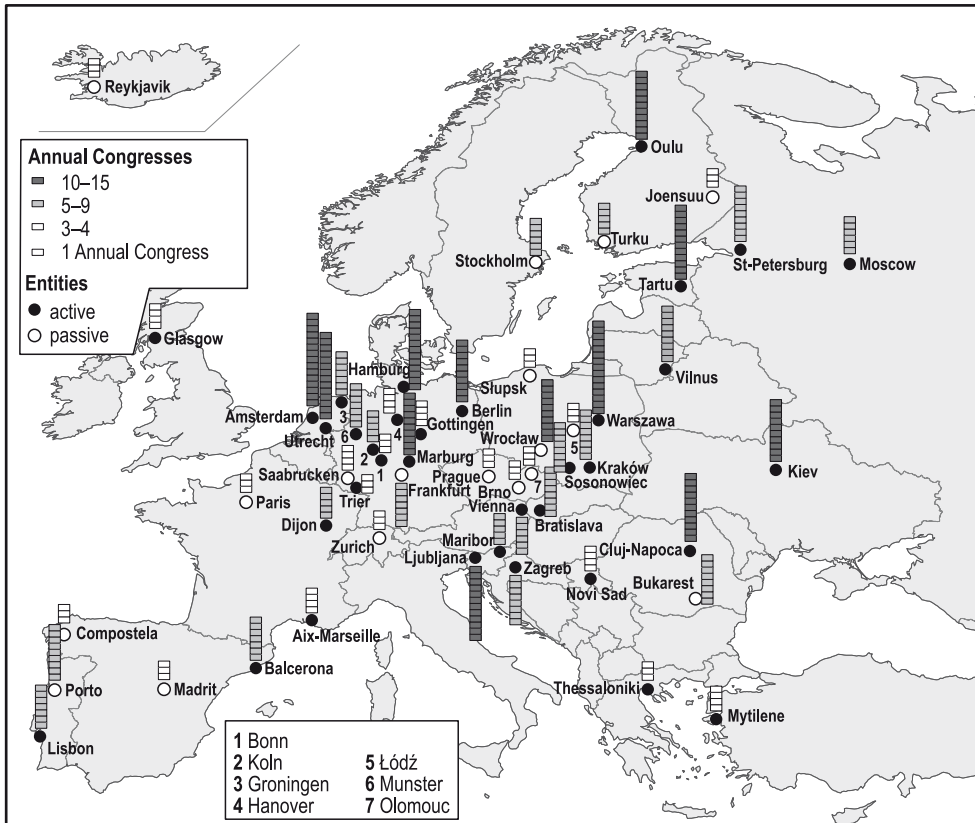


Figure 2. Present at Annual Congresses per entity

This does not show a clear geographical pattern in the development of the EGEA network. But we see very active countries and some ‘blank spots’ on the EGEA map. The Netherlands have been active from the beginning, with Utrecht and Amsterdam as main entities. All Dutch cities with academic geography studies are active in the EGEA network. The number of Dutch participants at congresses has always been high. Germany has the most entities and often the most participants at congresses.

Germany is of course a big country with around 44 geography departments. The active EGEA entities in Germany are changing. Germany has many entities that ‘died’ and have been ‘revived’ again (for example Hamburg, Münster, Göttingen, Bremen, Bonn, Hannover, Mainz). Poland has been active and relatively stable from the beginning, with Krakow and Warsaw that have always played an important role in the network. The Czech Republic has been active in the early days of the EGEA network but at the moment there is no EGEA entity there any more. Bratislava in Slovakia has recently been revived again.

Finland has been active from the beginning with several entities, only Oulu managed to survive over the years. Scandinavia has been almost absent over the years. In the very beginning and since very recently Sweden is on the EGEA map. The Baltic States have two very active entities, with Tartu in Estonia active from almost the start of EGEA. In Russia, Saint Petersburg has a long EGEA history, Moscow has

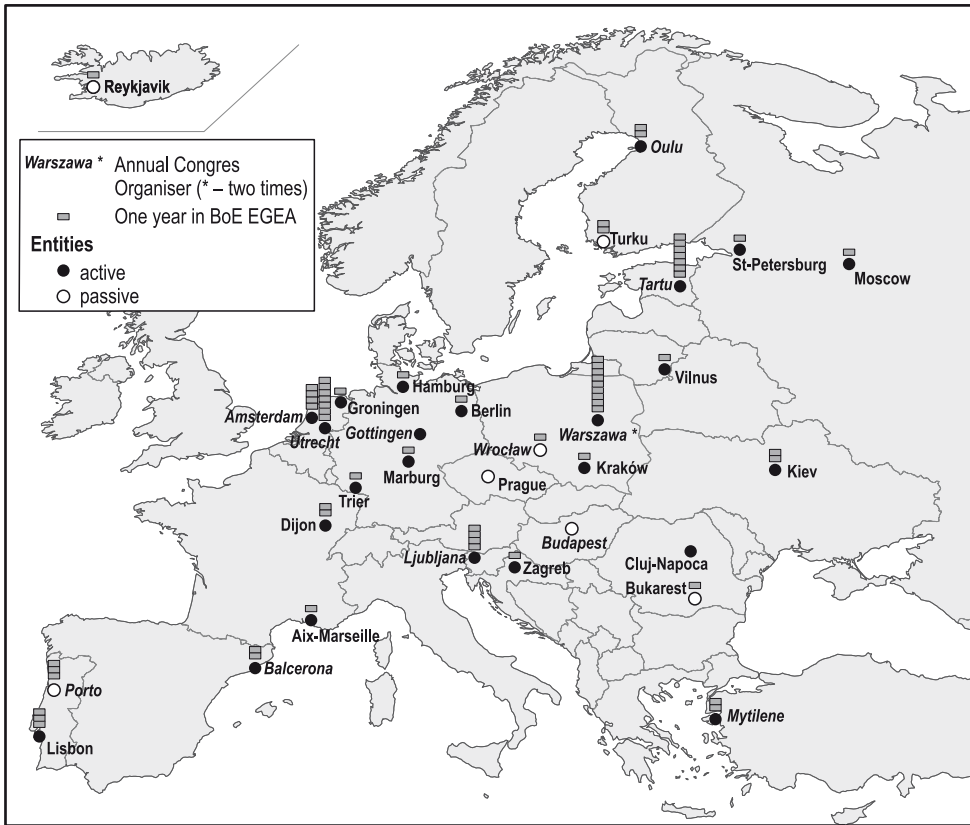


Figure 3. BoE years per entity and Annual Congress organisers

been recently revived again. Greece developed into an active EGEA country since Mytilene started in 2000. Slovenia has a strong entity in Ljubljana, responsible for the start of other entities in the region. Zagreb is a very active entity in Croatia since 1999, and in the recent years Belgrade and Novi Sad are developed into two active entities in Serbia. From Spain many different entities have participated in EGEA congress, but they seem unable to establish a sustainable entity.

One of the EGEA founders, Barcelona died more or less in 1994 and was back in 2000 and 2004. Because of efforts from EGEA Valencia, new entities have been established in Spain. Portugal has been very active in the network, especially Porto and Lisbon, but at the moment there is not much activity. France has a relatively low number of entities, compared to the size of the country. The United Kingdom is heavily underrepresented in the EGEA network given the number of geography departments. Since 2000 Glasgow is a steady entity. Italy has been totally absent in the whole EGEA history except for one participant from Genoa in 2000. From the beginning EGEA was present in different parts of Europe. The development of EGEA does not show a specific geographical direction of growth but there are some striking blank spots on the EGEA map.

The number of members that an entity has had in the Board of Executives – BoE (Figure 3) tells something more about which entities played a main role in the network.

It is expected that the more active and bigger entities would have more BoE members. Warsaw has had nine BoE years, Utrecht and Tartu both seven, Amsterdam four and Lisbon, Porto and Ljubljana each had three BoE members. The map also shows which entities organised an Annual Congress. Annual Congresses have mainly been organised by entities that played a main role in the network. In three cases we could not find the evidence that a representative of the Annual Congress also had a place in the BoE.

Communication and the start of new entities

In 25 of the 36 answered questionnaires it was stated that mouth-to-mouth contact has been the way in which people got to know EGEA. Often several communication channels played a role before an entity became into existence. Ten entities came into existence because they received a letter or e-mail or were surfing the internet. In two cases surfing the Internet was the only source to start an entity.

Ten entities started because of students studying abroad, in eight of these cases it was a student, studying in an 'EGEA city.' In two cases a student from an 'EGEA city' managed to start an EGEA entity at their host university. Eight of the entities have been set up because the initiator(s) has heard from EGEA on a geographical congress, field trip or excursion. In two cases it was a professor who has heard about EGEA and told the students about it.

In the EGEA history numerous letters and e-mails has been sent to geography departments all over Europe. These letters, together with the people that met at a geographer's congress in Leon, were the reasons why EGEA already had 24 entities present at the first congress. Some entities in particular have been successful in inspiring other entities. Fifteen entities answered that EGEA Utrecht has played a role in their founding, EGEA Ljubljana was named four times and Warsaw twice. The number of entities started with help from Utrecht may be coloured because these entities might have been more willing to answer the questionnaire.

Geographical proximity and language play a role in the expansion of the network. Some examples are Mytilene that helped Thessaloniki and the new entity Athens with their founding, Utrecht has been active to start entities in Belgium, Ljubljana was responsible for the start of Zagreb and Koper, Saint Petersburg helped Moscow, and Valencia is making efforts to start entities in Spain.

Conclusion

The EGEA network started overwhelmingly. Enthusiastic people have been contacting geographical faculties on a large scale to join in their newly created student network. In a short time a vast network, spread all over Europe, was created. The cold war division of Europe was already bridged before the downfall of the Communist regimes.

The EGEA network is very dynamic, with many entities appearing, disappearing and sometimes being reactivated again. When analysing the countries present at Annual Congresses we see that The Netherlands, Germany and Poland are the core of the EGEA network. Looking to the BoE members Warsaw, Tartu, Utrecht,

Amsterdam and Ljubljana are the currently existing entities that have been the most active. Utrecht has been a successful diffuser of the EGEA idea.

The role of the receptors is important. They need the ‘courage’ to start an entity and to join an activity for the first time. The sustainability of an entity depends on the enthusiasm and the skills of the adaptor: do they manage to ‘institutionalise’ EGEA at their home university? If it remains a social network the entity is likely to end if the adaptors leave university.

Spatial distance is not the reason why some countries show very little activity in almost the whole period. The local context that Ormrod (1990) has brought up as explaining factors for innovation diffusion seems to be important here. French (geography) students have a considerable degree of organisation in associations at the national level but there is a language problem and a lesser interest in going abroad. In Italy, geography in higher education is less developed than in other countries in Europe. Students in the United Kingdom are maybe less focused on Europe and maybe have less time to join extra curricular activities. Except for Slovenia it took some time before entities in former Yugoslavia have been set up, the local context of the war played obvious a role here. Nowadays there are relatively strong linkages between the entities in former Yugoslavia (mutual exchanges, organising congresses together).

The Internet plays a major role in the organisation. Communication within the network increased and became faster and easier. The Internet forum made EGEA more a community where people communicate with each other on a daily basis. The Internet contact is not a displacement but a stimulus for face-to-face contact.

In the dispersal of the network the Internet plays a role, but face-to-face contact remains the most important way how new entities start to know about the organisation and decide to join it. Geographical distance still plays a role in the communication and the expansion of the network, because of students studying temporally in another city, because new entities have close contacts with entities nearby or in the same vernacular region, and because of already existing national geography networks.

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An evaluation of geography and geography education in Turkey

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Abstract

This research reviews the historical development of geography in Turkey, publications and research related with geography, the problems of geography and geography education in Turkey and geography education with regards to university, primary and secondary schools.

Key words: geography education, development of geography, Turkey

Introduction

In Turkey, significant improvements have been gained in the geography and geography education last century. However some problems still exist. Turkey is a wonderful laboratory for geography in respect to its natural and human elements. This research has evaluated these topics:

- Historical development of geography in Turkey
- Publications and research related with geography
- The problems of geography and geography education in Turkey
- Geography education with regards to university, primary and secondary schools.

Historical development of geography in Turkey:

The development of geography in Turkey has taken place during four main phases:

Before 1933

The period of time before 1933 in Turkey geography was undergoing a preparation period for scientific research, education and for other activities. In this stage, the studies related to geography were inadequate. There were some troubles both in sources and methods. The period has been identified as the preparation period before the modern geography (Erinç, 1973).

Between 1933–1941

This phase is known as the establishment of the place of modern geography in Turkey, it is indeed an important one for Turkish geography. During this period, two geography departments were opened, one of them was in Istanbul, and other was in Ankara. These still have still an important place in geography. The faculty members who were brought from overseas to Istanbul University Department of Geography and then to Ankara University Department of Geography, contributed to the development of geography there. However, most of the teachers were mainly

physical geographers and this resulted in the greater development of physical geography compared with other aspects (Erinç, 1973).

Between 1941–1981

A big congress was held in Turkey in 1941 related to geography. This congress took an important role in the development of geography in Turkey. As a matter of fact, as a result of this the Turkish Geography Institution was set up and it became the centre of related studies. With the help of graduating students who had been educated by the teachers especially coming from France and Germany in the previous period and the students returning from abroad who had been sent overseas for their education, geography reached its highest peak in terms of education and publications (Erinç, 1973).

Since 1981

In this period, which still continues up to now, not only have there been some developments in geography but also geography has entered a standstill period. Even though the number of the publications continues to increase and lots of new developments have taken place with new departments being opened, the desired quality cannot be found.

Publications and research related with geography

Related to physical geography

In Turkey, especially after 1941 lots of physical geography books, which were related to both local and general topics, were published. The publications related to general topics were also used as lesson books especially in higher education. The influence of teachers, who had come to Turkey, is seen clearly in these works.

Related to human geography

In Turkey, the number of the studies related to the human geography is relatively small. Especially between 1941–1980 there were too many general works and little specialization. In recent years, it is understood that local studies were given importance more.

Related to Turkey's geographical features

In Turkey, in the early 1900s the amount of research about the country's geographical features was relatively low. It was on this ground that the Turkish Geography Institution was set up and the departments of geography in the main universities were opened, the number of the significant studies about the country's geographical features has since regularly increased (Izbirak, 1976).

Journals of Geography in Turkey

In Turkey, the geography journals are the publications in which the university academic research is published. The journal of the Turkish geography Institution has been publishing Turkish research from the day of its foundation.

The five main geography journals in Turkey are:

1. Turkish Geographical Review (published by the Turkish Geographical Society),
2. Aegean Geographical Journal (published by the University of Aegean),
3. Eastern Geographical Review (Cizgi Publishing House),
4. Marmara Geographical Review (published by the University of Marmara),
5. Geography Research Journal (published by the University of Ankara).

The problems of geography and geography education in Turkey

Financial and social problems: There are not sufficient adequate sources for geography research and development.

Related to vocational identity problems: In Turkey, there are two kinds of geography departments in the universities. One of them is training teachers and the other is educating graduates to undertake geographical research. But because there are no exact definitions of their duties there are some difficulties.

Problems related to curriculum: In Turkey, there have regularly been changes in the school schedules. But curriculum development is behind the times. Currently a new curriculum is being prepared, this aims to bring Turkish geography accordance with other countries of the world.

Related to teacher candidate problems: There are few adequate applicants to become geography teachers because of an out-of-date curriculum and traditional teaching approaches. This is also due to government policies that do not promote teaching, candidate teachers in the universities have serious anxiety about their future (Kayan, 2000, Koçman, 1999).

Related to school book problems: School books generally have inadequate current information, they are not written to meet the needs of the students and support their learning.

Inadequacy of practice: Trainee teachers in the geography departments of the universities have few chances to practice; they thus graduate inexperienced (Kayan, 2000).

Related to lack of training services: There is no adequate in service training for the graduate students, they therefore cannot be made sufficiently aware of learning and teaching innovations (Özey, 1998).

Being not able to benefit from the education technologies: A lack of resources and training opportunities means that teachers cannot benefit from technological innovations like computers, the Internet and GIS.

Geography education with regards to university, primary and secondary schools

In Turkey, there are geography lessons in primary and secondary school education. Geography is taught in social studies (stage 4–8) lessons in primary school, and there are geography lessons in secondary school (stage of 9–12). In Turkey, there are currently 19 geography departments in differently university (Table 1).

Table 1. The institutes of geography in Turkey

	University	Faculty
1	University of Afyon Kocatepe	Usak Faculty of Science and Literature
2	University of Afyon Kocatepe	Faculty of Science and Literature
3	University of Ankara	Faculty of Language history and geography
4	University of Atatürk	Faculty of Science and Literature
5	University of Atatürk	Faculty of Education
6	University of Balikesir	Faculty of Science and Literature

7	University of Canakkale 18 Mart	Faculty of Science and Literature
8	University of Canakkale 18 Mart	Faculty of Education
9	University of Dicle	Faculty of Education
10	University of Dokuz Eylül	Faculty of Education
11	University of Ege	Faculty of Science and Literature
12	University of Firat	Faculty of Science and Literature
13	University of Gazi	Faculty of Education
14	University of Istanbul	Faculty of Science and Literature
15	University of Sutcu Imam	Faculty of Science and Literature
16	University of Marmara	Faculty of Education
17	University of 19 Mayıs	Faculty of Science and Literature
18	University of Selcuk	Faculty of Education
19	University of 100. Yil	Faculty of Science and Literature
	Total	12 science and literature faculties 7 education faculties

Conclusion

As result, considerable developments have been gained in the area of the geography education in Turkey. In order to guarantee continuity of these developments and to increase the international competitiveness, as specified in the Bologna process, convergence has been created in terms of criteria and methodologies. Additionally, the ways of transnational education, accreditation, credit systems and quality assurance have been opened so that the intergovernmental cooperation can be achieved.

It is therefore clear that the higher education institutions in Turkey have a unique opportunity to shape their own European future and to play a crucial role in the development and implementation of the Bologna process.

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Europe in geographical education – An international comparison of factors influencing the perceptions of primary school pupils

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Abstract

The way pupils see the world is nowadays not only a matter of learning at school. The way of life of their parents, holiday trips all over the world, the so called “new” (and old) media and many other aspects also play a very important role in their development of spatial representation. Until now only few empiric studies have been done about the development of these cognitive spatial representations. The study presented in this contribution is looking on the perception of today’s ten years old primary school pupils have of the world, the cognitive map they have inside their mind and which factors of influence are responsible for the development of the children’s perception. The results of this study should enable to create a learning environment which allows to support the development of the children’s spatial representation. This contribution will present first results of the national and international study.

Key words: Geography, HERODOT, teaching, Primary school, maps, Europe, mind maps, perceptions

Although much research has focused attention on children’s perceptions of the world during the recent years we know relatively little about children’s perceptions and the reasons for their development. One reason for this lack of information is certainly the Piagetian theory of child development and in order to that the assumption of young children finding it hard to comprehend abstract concepts. Nevertheless consolidated findings about the perceptions of children and their genesis seem to be indispensable for the development of reasonable teaching strategies and aids.

The research presented here provides different aspects of children’s conceptions of the world and the therefore responsible factors of influence. Evidence was gathered by a free drawn mapping exercise (mind mapping) with no reference to maps or globes and a questionnaire survey from children, parents and teachers. The following questions took centre stage:

- How does the world look like in the perceptions of children?
- Which influence does the travel activity have on these perceptions?
- How far does a medium affect the perceptions of children?
- What kind of influence do current and especially political events (wars...) have on the conceptions of the children?

- Which countries are for example shown in mind maps by the children and why are they shown (special form, situation...)?
- To what extent are the perceptions affected by the migration biography of the children?

About 350 primary school children from Germany aged ten years old and another 500 children from around the world (Figure 1) were involved.

The background for this study is the belief that, by knowing more about children's perceptions we can devise more effective teaching strategies to enable children to have a more accurate and durable frame of reference for developing their store of spatial knowledge.



Figure 1. Countries included in the international comparative study

Within the analysis of the data the maps of the children were first divided in different categories according to specifically developed criteria (Figure 2).

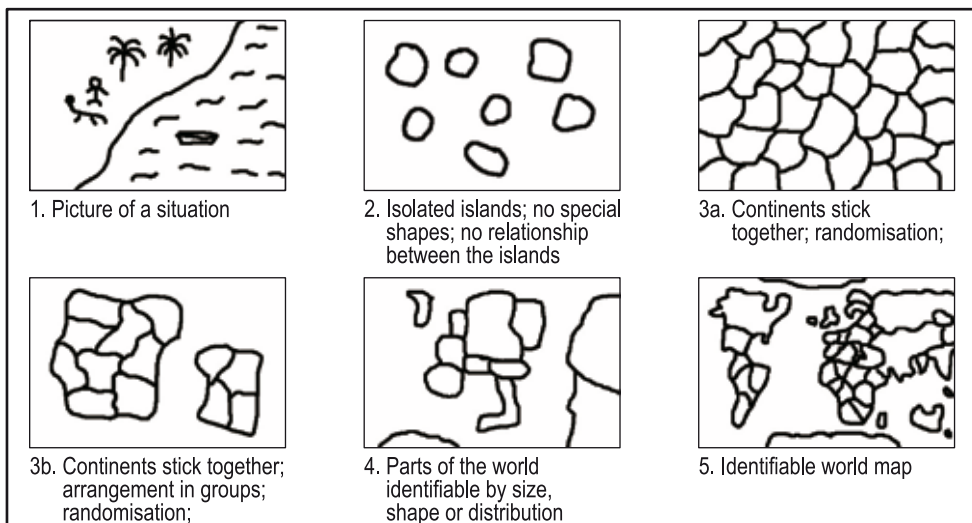


Figure 2. Example of categories for the mind maps

Then these results were compared to the data of the questionnaire survey for existing correlations.

Children’s images of the word and Europe

In his study with British children in the age from five to eleven Wiegand found a strong association with age. “The youngest children drew an archipelago of very similar, enclosed ‘lands’ indicating little understanding of the difference between continents, countries and other places. With increasing age, these became progressively differentiated by size and shape. [...] By about 7 to 10 years, most children drew maps which indicated an understanding of how places ‘nest’ inside each other, such as countries within continents.” (Wiegand, 1998). Regarding the results of the present study it can be stated that the involved children do not possess a uniform conception of the world or Europe as map (Figure 3). The drawn mind maps can be interpreted rather as the result of very different and individual experiences. An age-related development could neither be diagnosed in the context of the study nor in the pilot survey with children from kindergarten to university.

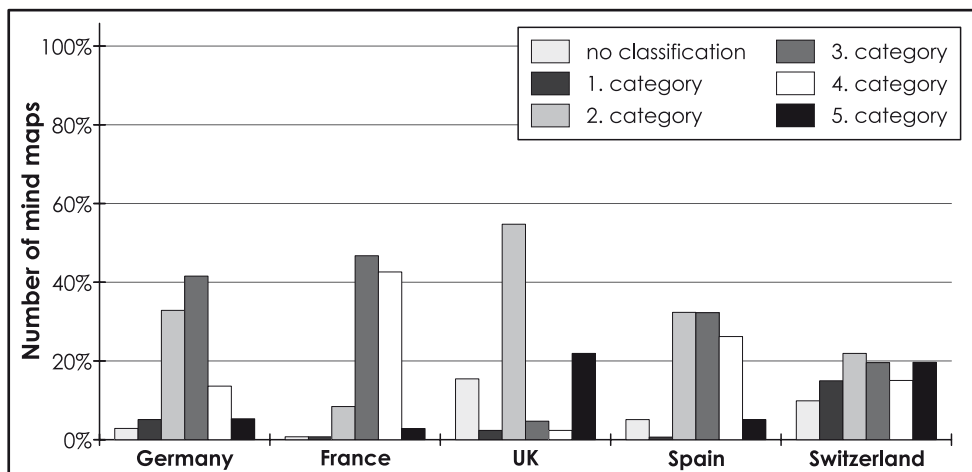


Figure 3. Distribution of mind maps in relation to the categories

Another result of Wiegand’s studies was that “even in the later primary years, only 10% of children could make a representation of the world with all seven continents present and in approximately the correct relative location” (Wiegand, 1998). This aspect could only be verified for the average of all countries together. However it can be shown that the referring results in the five countries vary strongly. Thus for example in the UK and in Switzerland approximately 20 per cent of the children draw ‘world-similar’ mind maps. In contrast to this there were less than 5 per cent in France, Germany and Spain. Remarkable in this context is the high proportion of 45 per cent French children, who represented at least sections of the world (Figure 3).

Also the – in the literature frequently described – “centrality”, i.e., the children draw their own country in the centre of the sheet and place the other countries around [1, 3, 4], could not be confirmed by an analysis of the mind maps. In those maps, which represented a recognisable world map (Figure 4), the children usually

orientated themselves on “normal” maps of the world, as they are usually used in the atlases, on wall maps and in the media.

But also in the mental maps, which do not represent an arrangement of the countries (Figures 5 and 6), so centrality could not be demonstrated.



Figure 4

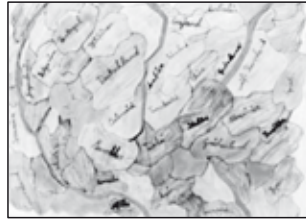


Figure 5



Figure 6

In the past children explored their surrounding area bit by bit starting from their own domicile. Thus they became – step by step – acquainted with larger areas. The development ran according to so-called “concentric circles” (Figure 7). Today the close area still is explored by children in the form of circles. The whole model of development however has got a completely new form. It is extended by additional islands (Figure 8). The reasons for these islands are very complex, multilayered and individual.

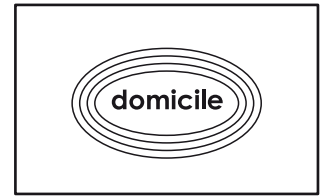


Figure 7. Old model of the development of a childish habitant

In many cases they can be the result of holiday trips or current events such as the Olympic Games, wars, natural disasters etc. (Haubricht, 1992)

Thereby the area between the islands is formed due to the missing experiences empty and only bridged by the children. Thus perceived distances between different places of the children are completely subjectively felt (short flight vs. long drive).

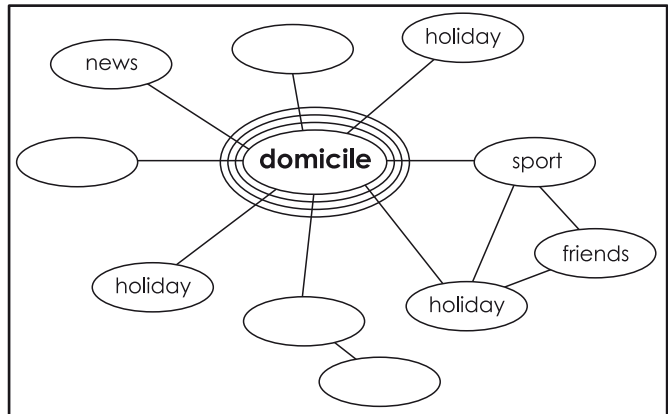


Figure 8. New model of insular development of a childrens habitat

The results of the questionnaire survey done by the children also shows an enlargement of the “concentric circles” model. The ranking of the countries mentioned by German children (Figure 9) shows a clear dominance of holiday countries within the top ten. However the results reflect also political and current causes. Thus Iraq is in 11th position in the German ranking and in 6th position in the ranking of the UK children. The results are even more surprising concerning the member states of the European Union. Even though the member states again and again are in the focus of current affairs and the media and both the implementation of the Euro and the enlargement of the European Union were treated in school (so it should be), the majority of the member states is found far below the top fifteen countries

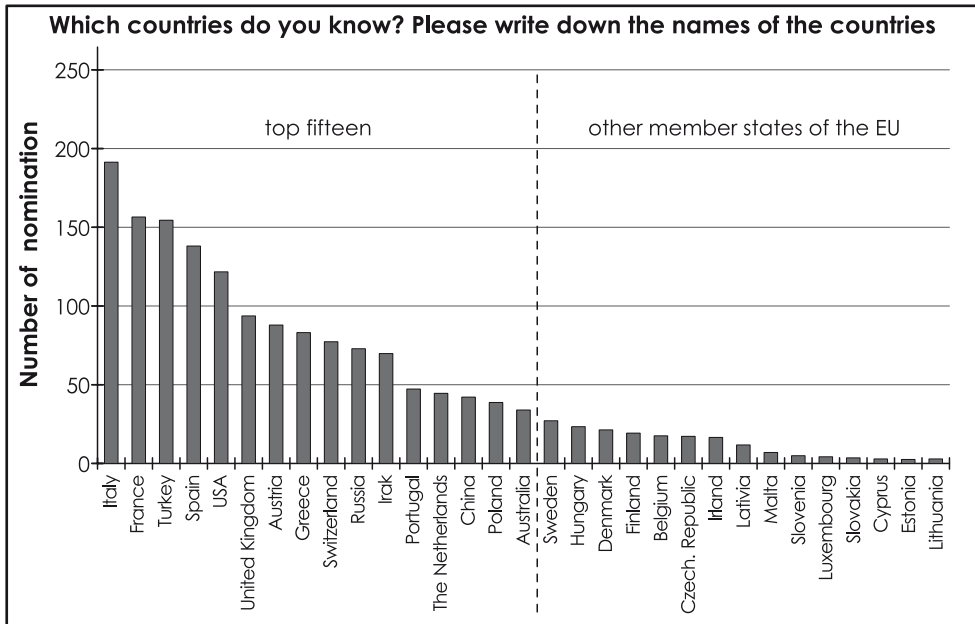


Figure 9. Countries mentioned by the 10 year old German children

In the context of the questionnaire survey about 60 per cent of the children knew their own continent. Only in the UK was Europe named in less than 40 per cent of the cases. Also, more than half of the involved children concerned (65 per cent) were able to locate their country on a given world map (Figure 10).



Figure 10. Extract from the student questionnaire

Thereby, the distribution within the different countries was again very different. In the context of the study, for the children from France, Spain and the UK, the majority were able to locate their own country on the map (Figure 11). Reasons for this could be among other things the edge and/or island location of these countries.

In contrast to this, only less than 30 per cent of the German children could mark their country on the map. This could be explained by the missing edge and/or island location. However Switzerland, which was represented only as a small location on the map, without an edge and/or island location and thus expected to be very difficult to identify, was registered correctly by 52 per cent of the Swiss children.

Regarding the different factors influencing the children, the first results suggest that media as well as current events, travel activities, migration biography, personal interests and special characteristics of countries have an influence on the perceptions of the children. Measuring the significance of individual factors was not undertaken in the context of the first results. It offers the basis of further analyses.

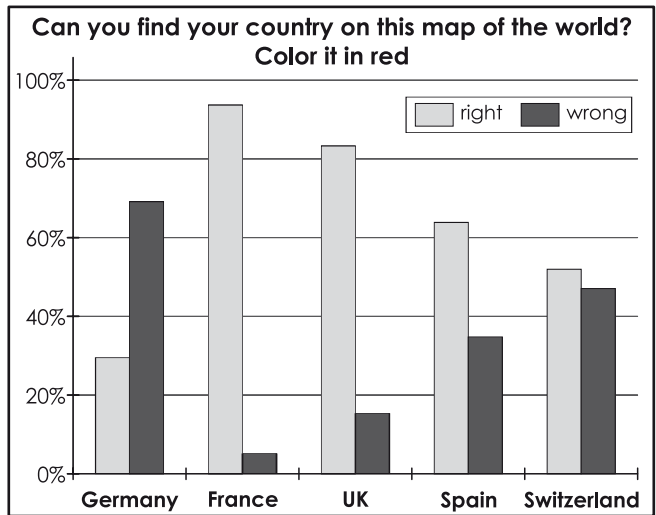


Figure 11. Location of the own country on a world map

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Internationalizing geography in higher education: initiatives of the association of american geographers

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Abstract

This paper reviews the internationalization program at the Association of American Geographers (AAG). Two projects are highlighted: (1) A research study examining patterns of internationalization in US postsecondary geography, funded by the American Council on Education. (2) The Online Center for Global Geography Education, funded by the National Science Foundation to develop online course modules that support international collaborative learning. Both projects are providing geographers with an empirical basis for infusing international perspectives in the undergraduate curriculum and supporting international collaborations among faculty worldwide.

Key words: Internationalization, geography in higher education

Introduction

Students need international perspectives and high levels of competency in geography to understand contemporary issues related to the environment, economy, development, national security, and human rights. In an age of global interdependence, students also need social skills that enable them to interact constructively with people having different cultural backgrounds – and often with very different points-of-view on matters of foreign policy and international affairs. As global citizens, individuals must feel committed to international goals, value multilateral approaches to policy-making, and reject isolationist thinking. In short, global citizenship requires globally oriented hearts, minds, and actions.

Geography is a cornerstone of global education because it provides a unique perspective of the world, one that recognizes the interplay of human and environmental phenomena across local, regional, and global scales. And yet, many geography students are taught primarily through lectures and textbooks, providing them with few opportunities to engage directly with the perspectives of their peers in other world regions. Although knowledge of global geography is necessary and important, such knowledge does not fully encompass the affective and behavioral dimensions of global citizenship education. A global citizen must also be able to explain why such knowledge is worth knowing and understand how it can be applied for the global good.

To what extent is educational practice in geography preparing future global citizens? In recent years, the Association of American Geographers has launched

a number of projects designed to promote internationalization in higher education. Internationalization is defined here as “the process of integrating an international and intercultural dimension into teaching, research, and service functions of the institution” (Knight and de Wit 1995). This paper reviews two major projects that the AAG is conducting to help geography faculty members participate in the internationalization process. The first project involves collaboration between the AAG, the American Council on Education, and three other disciplinary organizations to develop an action plan for internationalization. The second project is developing experimental educational materials for geography in higher education, with the aim of creating online learning environments to engage students in international learning and discussion.

Ace internationalization project

The AAG, along with three other disciplinary associations (the American Historical Association, the American Political Science Association, and the American Psychological Association) and the American Council on Education (ACE), are part of a new project promoting the internationalization of teaching and learning at U.S. colleges and universities. The project, entitled “Where Faculty Live: Internationalizing the Disciplines,” is being funded by a Carnegie Corporation grant to the ACE. As part of the project, each association is charged with three goals: (1) articulate global learning outcomes relevant to its membership that will inform both the major and general education and communicate those outcomes to the membership, (2) develop an action plan to promote internationalization within its discipline, and (3) explore how the work on internationalization accomplished by the disciplinary associations can be integrated into institutional strategies to promote internationalization.

To assist the participating associations in this work, ACE has formed a steering committee consisting of representatives of the associations and several other academic organizations, including the American Association for the Advancement of Science, American Council of Learned Societies, the Consortium of Social Science Associations, and the National Humanities Alliance. The committee will serve as a mechanism for the exchange of ideas among the participants and will explore how the work of the project and overall institutional efforts to enhance internationalization can be mutually reinforcing.

It is expected that the ACE project will demonstrate how disciplinary associations can take a leadership role in promoting the internationalization of student learning. The project will also provide guidance to faculty in the participating disciplines to help them incorporate an international dimension into their teaching and the experiences of their students, in both upper-level courses in the major and in courses that comprise general education or the core curriculum. To achieve these goals, the AAG is leading a study to measure how faculty and departments perceive the value of internationalization for geography education and research. The survey is collecting data on the social and professional characteristics of academics who practice internationalization and describe their experiences with international teaching and research. It is designed to identify the tactics that geography departments are using to inter-

nationalize their undergraduate and graduate programs. Finally, the survey explores the teaching methods of faculty and their support for global learning outcomes.

The ACE initiative rests upon the assertion that internationalization is necessary to prepare students for life, work, and citizenship in a globalized modern economy. In the second project, we are directly addressing this challenge by creating materials for an internationalized curriculum in geography.

Online center for global geography education

The Online Center for Global Geography Education is producing a series of course modules to enhance the teaching and learning of global geography. The Center is partially funded by the National Science Foundation (NSF) and is being developed with the full support and involvement of the Association of American Geographers, Grosvenor Center for Geographic Education, International Geographical Union, International Network for Learning and Teaching, and National Council for Geographic Education. The project aims to internationalize teaching and learning by providing geographers with the materials, technology, training, and technical support they need to start their own international teaching projects.

The Center currently offers three prototype modules: *Population*, *Global Economy*, and *Nationalism*. An early prototype, *Migration*, is also available for review. Each module is a self-contained, collaborative learning environment featuring lessons that engage students in collaborative projects, promote understanding of geographic concepts, provide practice using geographic skills, and deepen awareness of international perspectives about contemporary global issues. Important geographic concepts and skills are illustrated through data, case studies, and animations drawing on the AAG's *Activities and Readings in the Geography of the World* (ARGWorld) project. The modules support online collaboration using Blackboard™, a software platform supporting e-learning. To enable broader dissemination, the modules will be published in English and Spanish.

The project includes a research and evaluation component to investigate student learning outcomes and faculty attitudes toward internationalization in higher education.

For students, key learning objectives include (a) the ability to use the information, methods, and concepts of geography to examine global issues; (b) knowing how to use Internet technology for effective learning and collaboration; (c) being able to formulate and carry out strategies for asking and answering geographic questions in an international team; and (d) greater interest in the study of geography and appreciation for its perspectives on global issues. Expectations are that student learning and interest in global geography will be enhanced through online interactions with peers and experts in different world regions.

The modules are currently being tested by faculty in several countries to consider what teaching methods and technologies promote the abilities of international students engaged in online collaborative learning. Research has shown that collaborative learning can improve academic achievement and even promote cross-cultural understanding and goodwill (Bruffee 1993; Calvani, Sorzio, and Varisco

1997; Johnson, Johnson, and Smith 1998; Springer, Stanne, and Donovan 1998). As yet however, few studies have examined the materials, teaching methods, and technologies being used to support online international collaborative learning, particularly with regard to (a) how the learning process is affected by language and cultural diversity (Bonk and Cunningham 1998; Fortuijn 2002), and (b) whether the practice enhances the learning of geography and appreciation for its perspectives on global issues (Reeve, Hardwick, Kemp, and Ploszajska 2000; Shepherd, Monk, and Fortuijn 2000). The project's evaluation will assess achievement of these student outcomes as well as faculty attitudes toward this approach to global geography instruction. Both quantitative and qualitative research methods will be used to assess the success of the CGGE project. Four central research questions are driving the evaluation:

- How does international collaborative instruction affect college student learning of the concepts and skills geographers use to analyze contemporary issues?
- To what extent does this form of instruction enhance college student understanding and appreciation of international perspectives about these issues?
- To what extent does this form of instruction foster appreciation among college students for the geographic perspective on global issues?
- What specific teaching strategies and technologies promote or hinder the effectiveness of online, multilingual international collaborative learning?

A variety of methods are being used to collect the primary data for the research. Data will be collected from trials conducted by the six module authors and several additional faculty in the U.S., Northern Ireland, Spain, China, Germany, the Netherlands, Australia, and Chile over two academic semesters beginning in September 2004. Quantitative analysis will use a pretest-posttest design to measure achievement of specific content outcomes and changes in student attitudes toward global geography. Qualitative methods will focus on areas where more nuanced data are sought, such as the analysis of student appreciation for international perspectives and for reactions to the pedagogy itself. Supplementary qualitative data consisting of classroom observations and interviews will be obtained at two test sites in Europe during Spring 2005 by the project evaluator, who has been awarded a sabbatical leave for that purpose.

Discussion

The initiatives described above are designed to create the materials and information base that can serve as an empirical platform for strengthening geography in higher education. Beyond these initiatives, the AAG supports international collaboration through a variety of ongoing programs. In August of 2004, the AAG assisted junior and senior scholars attending the IGU Congress in Glasgow through a travel grant program funded by the National Science Foundation. *The My Community, Our Earth* project is currently inviting student projects that reflect the themes of the U.N. Decade of Education for Sustainable Development. The AAG continues its tradition of holding a special reception at each annual meeting to honor the presence of international scholars participating in the meeting. And many AAG Specialty

Groups also focus on international themes and regional studies and help members develop their international networks.

For geographers, internationalization presents some interesting and challenging questions: What is the role of geography in global education? What should it be? Can geography education develop individuals into global citizens? Do geographers share goals with other disciplines in regard to internationalization? How can departments, institutions, and professional organizations successfully plan and design programs for internationalization? Though many geographers in the United States are exploring these questions, much can be gained through international dialogue, and it is in this spirit that the AAG, together with HERODOT and other like-minded networks, might begin to explore joint initiatives to enhance internationalization. The first ingredient – a common vision – is already in place. To follow through, we can take advantage of the disciplinary infrastructure built by the INLT network and IGU Commission on Geographical Education. Likewise, we can learn from the techniques employed by various specialty organizations including the International Cartographic Association, the International Critical Geography Group, and UNIGIS. For ongoing support, we will inevitably need to secure funding for our initiatives, and possible US sources worthy of investigation include the International Program in the US Department of Education Fund for the Improvement of Postsecondary Education, and the Office of International Science and Engineering in the National Science Foundation.

Through research and outreach, geographers can engage the internationalization process underway in higher education and help direct it toward the improvement of educational practice and student learning. The challenges are great, but so too are the opportunities to develop global citizens through partnerships between the professional societies that support the work of geographers in the world.

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The Position of Geography Graduates in the Labour Market in Castile and Leon (Spain)

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Abstract

Until a few years ago, people gaining a Geography degree in Spain, as in other European countries, usually had just one job option open to them, teaching in a primary or secondary school or at university. Nowadays, Geography students are not keen to be teachers; they prefer to look for jobs in the professional marketplace. The main problem is that this market is not familiar with the profession of geographer. Moreover, academic staff at universities still tend to train their pupils how to be secondary-school teachers rather than professional geographers.

Key words: Professional geographer, Geography studies, employability

Geography Studies in the Universities of Castile and Leon

Castile and Leon is the Autonomous Region of Spain that has the largest area (at 94,223 square kilometres) but is also one of the least populous (with a population of 2,501,534 in 2005). Its population density is thus 26.5 inhabitants per square kilometre. Furthermore, it is one of the least developed Spanish Autonomous Regions, with a considerable amount of virtually untouched rural landscape. The nine provinces that form this region have most of their population and economic activities concentrated in the provincial capitals. If the town of Ponferrada, the region's only city of more than 50,000 inhabitants that is not a provincial capital, and a few urban areas on the edges of the major cities are taken into account as well as the capitals themselves, the result is that 50% of the region's population lives in 17 municipal areas covering only 5% of its territory, while the other half is spread over a further 2,232 municipal areas [roughly equivalent to British civil parishes] that together make up one of the most extensive and least inhabited regions in Europe, quite comparable to the "demographic deserts" in the Scandinavian countries. It is also one of the regions of Europe with the most elderly population, since 28% of those living there are over 60 years old and only 16% under 20.

In this region eight universities perform their educational functions, four of them public and four private. In the academic year 2004-05 their combined total of registered students was 87,327, of whom 0.4% were registered for Geography courses. This, in a region which, rather as the Canadian Prime Minister William Lyon Mackenzie once said when referring to his own country, "has too much geography".

Degrees in Geography can be studied in Castile and Leon at the three public universities of Leon, Salamanca and Valladolid. These each have a syllabus that has recently been revised (in 2001, 2000 and 1998, respectively). The programmes include the usual traditional Geography subjects, but also more professionally-oriented courses on topics such as Geographic Information Systems, Urban Planning, Local Development, Regional Policies, Geography of Natural Risks, or Environmental Impact Analysis. The inclusion of these in the syllabus was as a replacement for other, more general, subjects like History, Education, or the Humanities. In fact, university departments in Castile and Leon, like those in other Spanish regions, designed their new syllabuses to train geographers so that they could work professionally as specialists in planning and administration of land use, rather than as Geography teachers of various educational levels, as was the case until recently. With respect to Master's qualifications, the only university that offers the possibility of undertaking this type of specialized study is Valladolid, although of the two courses developed there, one is related to Urban Planning and the other to GIS, but they have not been run continuously.

This radical alteration to the objectives of university degrees was not initially accompanied by any similar change in academic personnel, because in most universities new degree courses in Geography had to be put in place on a "no cost" basis, without the appointment of any new staff. Hence, the changes that students could see in the first few years were in some cases purely formal, being no more than the replacement of an old title for a course with a new name, and not achieving the general aim of training specialists in territorial planning and administration that appeared in the syllabus. During the 1990s and continuing up to the present, however, there has been some increase in the staffing of Geography departments, with new academics generally having a vision of Geography diametrically opposed to more traditional views. Furthermore, over the course of these years, many members of staff have performed their educational duties in parallel with professional practice in consultancy firms or multidisciplinary teams in companies and firms, passing on in their classrooms the experience they have acquired in the private sector. Nevertheless, in Spanish universities it is still possible to see a mixture of two teaching tendencies, one that might be defined as generalist-humanist and another that could be termed professional-vocational.

Over recent years Spain has suffered a major drop in the number of university students, both as a consequence of a declining birth-rate and because of an increased proportion of young people who decide to not enter university studies. This drop has become particularly critical for those qualifications that either do not already have a long-established university tradition as a major, or single honours, subject nor can they offer a clear professional or vocational outlet, as is the case for the discipline being considered here. In the academic year 1998–99, there were in total 7,781 Geography students in the 26 Spanish universities that offered such degrees, while in 2003–04 the figure was 5,043, a decrease of 35%. In respect of Castile and Leon, the 1998–99 academic year saw 113 new student enrolments in Geography, while for 2003–04 the number was only 39, a 65% decline (Figure 1). Logically, these decreases

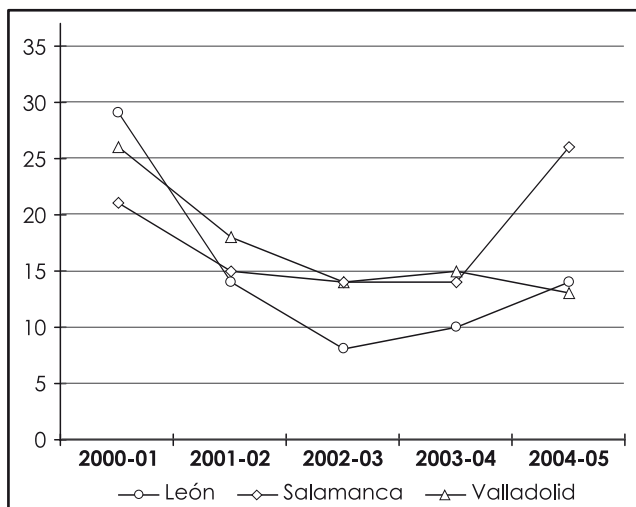


Figure 1. First year Geography students in Castile and Leon.
Source: www.ine.es; www.jcyl.es

have also affected the number of Geography graduates. In 2003, just 71 students graduated with Geography degrees from the universities in this region and in 2004 the total was 58. It is highly likely that in coming years the figures will decrease even more, even though there is an expanding job market, exemplified by the fact that in the academic year 2004–05 the University of Leon had more vacancies for work experience in companies and institutions than students able to apply for them.

Academic Geography is going through a crisis, at just the same time as the job market is beginning to demand specialists in Geography.

The Profession of Geographer in Castile and Leon

Spanish Law 16/1999, in force since May 1999, created the State-recognized Guild of Professional Geographers [roughly similar to chartered professional bodies in Britain]. It lists among the professional occupations of geographers, not just teaching and research, but also the gathering of territorial and environmental information, town and country planning, and the evaluation of socio-spatial processes. At the present time, this professional association has more than 1,100 registered members spread over the whole of Spain, although the total number of geographers working in the fields described previously is much larger. This is because professional geography lacks a corporate spirit at the moment, unlike other professions such as architecture, engineering, or law, so the process of recruiting members is slow.

Development of a regional, decentralized structure is among the plans of the current Governing Body of the Guild, to be achieved through the setting up of Regional Branches. The year 2005 was intended to see the establishment of such branches in Castile and Leon and in the Canary Islands, branches for Andalusia, Catalonia, Cantabria, Valencia, the Balearic Islands and Galicia already having been created.

Contrary to what has happened in other regions, in Castile and Leon the Autonomous Regional Government has not really given recognition to geographers' professional skills even in an indirect way, through employing specialists and experts qualified in this discipline in key posts in departments concerned with matters like urban planning, GIS, rural development, spatial policies, or environment. There have been virtually no vacancies in the regional administrative bodies advertised as specifically for geographers, nor have the Region's Local Authorities acted differently in this regard. In some cases, official advertisements seeking to hire experts

in regional development did not include people with qualifications in geography among their list of potential applicants. In such an institutional context it is easy to understand why the number of professional geographers in the region has remained low, although on an upward trend (Figure 2).

Professional geographers in Castile and Leon generally work in the area of rural development, as employees of local authorities or of foundations, or in consultancy companies, collaborating in urban planning, geographic

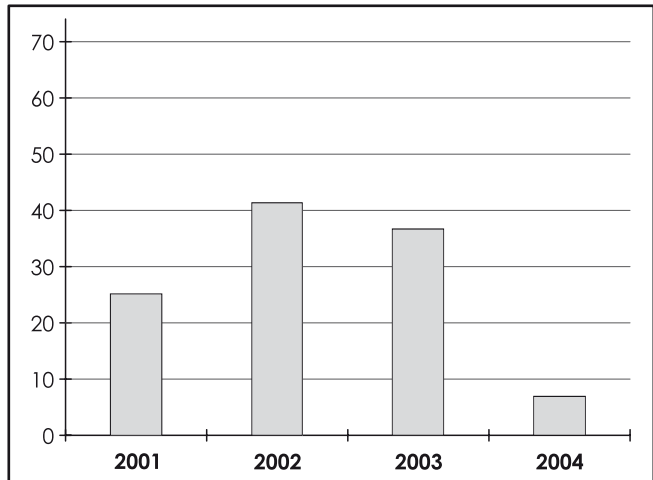


Figure 2. Guild membership in Castile and Leon.
Source: www.geografos.org

information systems, evaluations of environmental impact and socio-economic analyses. It is likely that when the Regional Branch is set up the number of Guild members will grow, as will social recognition of geographers' work.

With the intention of checking what degree of knowledge consultancy companies had of geographers' skills, a survey was carried out involving ten such firms. In all of them the necessity of undertaking socio-spatial projects in multidisciplinary teams was recognized. In seven cases geographers were included among the people that it was stated should form part of such teams. Among the functions that were assigned as suitable for geographers it is possible to highlight: study of the environment, cataloguing of elements of interest, socio-economic analyses, field work, broad overviews and the defining of territorial development strategies. Respondents were asked how they rated the following factors when recruiting new staff for their company: initial training, later specialization and professional experience. The last of the three was indicated as the most important in seven cases and came in second place in a further two surveys. Specialized postgraduate studies took first place in two surveys, second in five, and third in two. Finally, initial training, in the sense of a primary degree in Geography, was put first (as sole factor) in one survey response, was rated second in two and occupied last place in seven responses. Among the subjects of a professional-vocational type currently in the syllabuses of universities in Castile and Leon, the companies consulted mentioned as being most appropriate to their needs GIS, Regional Policies, Urban Planning, Environmental Impact Studies and Local Development, although all 15 of the subjects that were included in the questionnaire received some support. On this point, even consultants that had never hired a geographer also indicated numerous subjects as relevant to work in their companies. A final question was included about the possibility of taking on Geography students for work experience within the companies consulted during the next academic year.

The majority answered that they would be increasing the number of such vacancies for practical placements in the immediate future.

Conclusions

In the light of the analysis given above in respect of the situation of professional geographers in Castile and Leon, certain conclusions of interest may be drawn:

- The current process of revising university degrees in the context of the European Higher Education Area should be seen as an opportunity for Spanish academic Geography, on the one hand to create a 180 ECTS [European university credit] generalist-humanist degree that will qualify graduates to teach and to work in consultancy companies, and on the other to design a 120 ECTS multidisciplinary postgraduate programme of studies that will allow geographers to specialize in the fields highlighted by the Guild: geo-information technologies, the environment, town and country planning, demographic and social studies, the information society and rural development. Academic staff will have to specialize in one of these two types of programme.
- In the specific case of Castile and Leon, the three public universities could continue with their undergraduate degrees, but jointly offer a postgraduate or Master's qualification in Regional Development. Alternatively, they might complement each other by choosing differentiated specializations.
- In the design of both the undergraduate and the postgraduate qualifications they offer, it is of vital importance for them to back up the material learned in the classroom with the experience that is provided by work placements in companies and public institutions.
- Lastly, it is very important for the future the profession of geographer in Castile and Leon for the Branch of the Guild to be set up and developed. It is also highly desirable for there to be qualified geographers working for the Autonomous Regional Government, as this is the most effective strategy to achieve social and institutional recognition of geographers' professional skills.

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To have and to have not. Some questions on secondary Geography in Spain

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Key words: teacher's background, teaching methodology, teacher skills, geography competences

Introduction

An increasing social pressure is currently placing teachers and the school system in the "hurricane's eye". The cultural mix and the need for a change in attitudes and skills, is pressing the school and the role of teachers is becoming more difficult and even controversial. In this context, the question "Is there a significant role for Geography in education?" should be asked. Are teachers equipped to make geography a relevant subject in the school? This paper reports on the outcomes of a study carried out in the framework of wider research on the geography teacher's profiles. The work we present here was centred in the analysis of the teacher's points of view on some specific teaching aspects, mainly on those related to the use of resources in the classroom. The study also analyses the relationship between the use of teaching resources in the geography classroom and the teacher's attitudes towards in-service training. The work also provides interesting insights on the teachers opinions about Geography in the school curriculum.

The context of the research: Geography in Spanish curriculum

In the 20th century, Geography has been sharing the same curricular unit with History and teachers, both of Geography and History, used to have a History degree. The origin of this imbalance may be related to the shortage of Geography graduates at the time. Until the end of the 1960's, a Geography degree existed only in four Universities and new departments were established only after the new Education Act in the 1970's. There are in 2005, 25 Geography university departments in Spain. Nevertheless, today historians and geographers still share the teaching of Secondary school Geography, which has often been considered by History teachers as just an "attachment". In most universities, Geography has disappeared as such, from the curriculum of Teacher Training, substituted by methodological subjects; thus geographical knowledge and skills are becoming poorer among primary school teachers, as in many cases their geographical background is only that of lower secondary school (Villanueva, 2000).

In the Primary school curriculum, Geography is included in a unit called “Knowledge on social and natural environment”, where Geography, History and Civics, are introduced. In lower Secondary school, Geography is included in the Social Studies area where it represents 40% of the expected study load. In upper secondary schools (students aged 16–18) there are 105 hours of Geography taught in the second year as a compulsory subject for those students taking Humanities and Social Sciences strands. Overall this is a very low level of provision in the curriculum. The consequence of this limited presence will probably result in too few future Geography graduates training to be teachers and the persistence of History graduates teaching in this area; A degree in History has during the last three decades, been a very popular option among those students going to the faculties of Humanities and Letters and thus willing to teach in secondary schools. This also implies that Geography will continue to be taught by professionals not adequately trained in Geographical competences.

The research

The idea of this research arose after participating in international research coordinated by Sanders and Stoltman presented at the meeting of the International Geographical Union in Glasgow (Stoltman 2004). This work was designed to compare geography content and methods used by classroom teachers in Europe and the United States. Taking it as a starting point, a new enquiry was designed. The objective was to investigate the teacher’s professional profile, as it was considered to have a close relationship with the geographical approaches and resources that teachers use. The research was carried out with a group of 35 Secondary schools; 12 of them, together with their 30 geography teachers, constitute the sample which will be analysed in this paper. The schools in this sample belong to three near cities (Sabadell (pop. 193,000), Cerdanyola del Valles (pop. 56,000), Ripollet (pop. 33,000)). They are located very close to each other separated by a distance between 2–5 km, nine of them are public and three private, although recognised by the state.

The enquiry presented three main groups of questions to the teachers:

1. scientific background (academic degree, years of teaching, in-service training courses attended, specialization),
2. Geographical approaches (topic preferences, contents,...) and
3. the use of resources in the classroom.

The teachers were asked to rank from 1 to 6 (1 = least, 6 = most) different questions and also from 1 to 6 (1 = disagree, 6 = totally agree) a number of different statements. Finally, a last open question was added in order to get their opinions and points of view on Geography in the curriculum and about the role of Geography in Citizenship education.

Main survey findings, results and comments

The survey results show clearly that 99% of the professionals teaching Geography in Secondary Schools have not been trained in Geography Departments. 35% of them have a History degree and 41%, the former joint degree of Geography and History; some other professional backgrounds can also be found, for example Art

and Humanities. Five of the teachers also declared their origin as primary teachers. Until 1992, teachers were able to work in Secondary Schools after a two year post-graduate course with specialisation in for example History, Geography, Psychology, Pedagogy and Philology. This possibility was removed after the Reform of 1992. Their average teaching experience is 12 years. The positive attitude towards attendance at in-service activities was found in only the 35% of the sample and most of these (90%) had attended only one in-service course during their whole professional career and 60% of the courses done were not related to Geography. At the same time, 65% of them declared that they had not introduced relevant changes in the curriculum taught in their classes, not even those related to ICT (Information and Communications Technologies). This is of special significance since the Spanish school national curriculum has been reformed twice in the last 20 years. The rest of the teachers said that they had introduced some changes, especially those concerning environmental and regional studies aspects.

The second part of the questionnaire was addressed to find out the main competences chosen by teachers as objectives in their course work. They were given four possibilities and the results show the competences which can be considered to be the most geographical. The competence “understanding of spatial relations at different scales” was only chosen with the highest marks by 55% of teachers; on the other hand, the competence “to look for and to analyse geographical information”, was marked as most important by 70% of respondents. The most preferred competences were “to understand the diversity and interdependence of places” and “ability to observe and interpret geographical phenomena” which were marked by 80% of teachers with the maximum score (5 or 6).

The most important topics in geography lessons, were, from the teachers’ point of view, those related to World Systems and Human Systems, which had been marked by more than 80% of the sample, in the range 5 and 6. In second place, Europe, our country, Globalisation and Diversity were choices pointed also in the 71–75% of the answers. After this, Environment and Places and Regions appeared with highest scores in 70% of the enquiries. The design and study of maps is placed in the middle range, appearing only in a 65% of the answers and 25% of the teachers considered this question to be of a very low importance, whereas only 2% were not interested in environmental questions. These findings should probably be interpreted, taking into account the profiles of the teachers. The most basic and specific geographical knowledge is not considered as fundamental in the answers of the survey; perhaps the training profile of the teachers could provide an initial explanation.

The least interesting topics in teachers opinions are, Physical Systems and the questions related to Citizenship and conflict, which are considered only in half of the answers. These are relatively new fields for teachers, there probably needs to be some additional professional training.

It was decided to look at the instruments used in the geography classroom as an indirect way of approaching the teacher’s work, their abilities and skills. This proved to be a very helpful instrument in the understanding of what was happening in the classroom. The use of resources is strongly related to the objectives of teaching and

the efficacy of the teaching and learning action. It gives a clear idea of the methods used and the level of updating on new resources that has taken place.

The results of this enquiry reinforce the first hypothesis. The most common instrument in the Geography classroom is the textbook: 95% chose the book as an essential guide. At some distance from this maps were second stated by 68% of the teachers, indeed three of the respondents did not even recognise the use of maps at all!; newspapers and journals were selected in the third place. The overwhelming use of the textbook as the main tool could be interpreted in different ways. On the one hand, a textbook facilitates lesson planning; it gives security on the content and suggests appropriated activities; in conclusion, somebody (the author) “thought” in advance for the teacher. On the other, the use of a textbook could be interpreted as a solution for feeling secure when placed in the situation where the teacher doesn’t feel confident in teaching a subject. Taking into account the fact that most of the teachers consulted were not trained as geographers, the textbook could be helpful in their work, although the use of a textbook, doesn’t mean necessarily that teachers do not use other resources and combine them. In our research, the textbook constituted almost the fundamental resource and thus the teachers gave it the maximum mark.

The enquiry provided teachers with a list of many other possibilities, for example overhead transparencies, slides, Internet, GIS, Webquests, Video and DVD recordings. Some of these options were almost unknown: Webquests (0%), GIS (0%) Internet (3%), transparencies (9%). Only Video and DVD were marked in the 35% of the answers. In the case of GIS, 54% of teachers did not even know the meaning of the term.

The place of Geography in education: teacher’s opinions

Geography has not been a separate subject in general schooling in Spain since 1972. Very few teachers can remember how it was before this time, since they have been educated under the new system. There are many strong reasons to maintain the inclusion of Geography as part of a more global subject in Primary education. Children should be introduced to the discovery of the real world through cross-curricular subjects which have proved to be more flexible and efficient in the learning process. In the case of Lower Secondary level though, the arguments sustaining the inclusion of Geography in a broader curricular area need to be questioned. In any case, the fact that Geography does not have a relevant position in upper Secondary school, certainly contributes to the low profile of Geography when it comes to students applying for University courses.

The last part of the survey asked the teachers to mark their level of agreement with three propositions:

- the inclusion of Geography in the Social Studies area,
- the possibility of Geography as a separate subject and
- the contribution of Geography to citizenship education.

The answers were very similar: 100% of them were absolutely positive about the inclusion of Geography in Social Sciences area and thus they were clearly against the segregation of Geography. “Geography has to be integrated with History; it provides

the coordinate “space” to the coordinate “time” (Teacher I); “The Geography fields of work are strongly related to Sociology, Economy and mainly with History” (Teacher II); “Geography is complementary with History” (Teacher III). Geography was seen as useful and positive in Citizenship education, “It helps in the understanding of diversity” (teacher IV); and “Geography introduces critical thinking”(Teacher V).

Some final remarks

“To have and to have not”, the title of this paper, could also be the main conclusion of the study. Geography is present in Spanish schools but it is not seen by students as “useful knowledge”, for them Geography does not matter. Is it due to its position in the curriculum? To what extent is the fact that it is being taught by non-Geographers contributing to that perception?

In spite of the shortage of geographers in teaching, it can also be said that teaching was traditionally the main perspective for the few graduates in Geography. Since 1995, the intensive use of GIS and ICT has opened new opportunities for Geograhly graduates and they are now mainly employed in technical jobs, in planning and research units. In addition, the access to teaching posts is becoming even more difficult as the large surplus of graduates in History makes the competition for teaching jobs even greater.

If we add that because of the birth rate the total number of University applicants has sensibly decreased, we can conclude that it altogether it will be very difficult to change the situation and that the recruitment of candidates for Geography degrees requires a additional efforts. University Geography departments have implemented some policies based on the dissemination of information to Secondary schools. University teachers personally visit the schools, introducing the students to the ever widening range of possibilities for geographers to work in different and exciting jobs.

The results of this survey reinforces the idea that there is a lack of skills and competences in the teaching of Geography and confirms that secondary teachers do not seem to be interested in in-service activities to update their competences. How does this feet with the principle of “lifelong learning”? Probably the most important outcome of the work should be the need to inform Departments of Geography of the situation of Geography in Schools and the implications for the recruitment of students, university teaching and research, and to help the departments concerned in the reflection of how they should try to encourage geography graduates to work as Geography teachers and to get involved in the in-service activities needed by existing teachers and thus in the encouragement of these teachers to improve the quality, relevance and contemporary nature of their teaching.

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PART THREE

**Intercultural Aspects
in Geographical Education**

What Europe do we teach? A view from Spanish Geography

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Abstract

The aim of the paper is to analyse the teaching of the Geography of Europe in Spanish universities in order to detect the relationship between the practice of teaching and recent geopolitical changes in Europe, in the context of the evolution of regional geography issues. We examine the organisation of the subject, the area of study, the focus adopted and the recurrent, absent or new issues.

Key words: Europe, teaching, regional geography, Spanish universities

Introduction

The teaching of the Geography of Europe in Spain in the early years of the 21st Century is set within two important processes: geopolitical changes in Europe since 1989 and the changes in the academic context of geography, most particularly of regional studies (Childs, 1995; Halseth and Fondahl, 1998).

The end of the Cold War and changes in the map of Europe has implied a process of redefining Europe and of the search for a clear role on a global level. In this matter, Europe needs to convey an idea of citizenship, to inform more about Europe itself, and to create the sensation of “feeling European”. Moreover, through teaching at all levels, it is possible to work towards this knowledge of the European dimension, although teaching about Europe should not only serve to legitimise the European project, but to promote critical awareness of the process and to know and understand our immediate surroundings.

The geopolitical complexity of Europe demands new analyses of the territory (Foucher, 1998) and, for this purpose, the concept of a region is crucial. A regional geography that uses the explanation of what is local as part of a global reference, and which, in turn, observes historic, economic and social events that have taken place within the territory, is very important to provide elements to understand the current situation.

To explore the approaches to teach the Geography of Europe in Spain we have compiled the syllabi used in the Geography Departments in the Spanish Universities. Out of the 42 Departments consulted, 38 responses were obtained, 28 of which were positive ones in that they teach the subject and 10 were negative, they don't. This has been complemented with some interviews of Catalan colleagues who have experience of teaching the subject.

Approach, scope and course structure: a worthwhile diversity

It is difficult to generalise about the treatment of the Geography of Europe. The plurality of definitions for the concept of “Europe” itself clearly reflects the *uncertainty*, *ambiguity* and *conventionality* of which countries actually make up this territory.

The *title* by which the course is known appears to be particularly significant. “Geography of Europe”, “Physical Geography of Europe”, “Human Geography of Europe”, “Regional Geography of Europe”, “Geography of the European Union”, “Human Geography of the European Union”, “The European Union”, “Geography of the European Community”, “Geography of the European Communities”, and “General Geography of Europe” are the titles given to this subject.

When researching the *scope* (what is included within the term Europe), in most cases we observed that Europe is not simply limited to the countries of the European Union, although it is hard to tell from the syllabi exactly where the continent ends. Course-content descriptions provide an ambiguous answer to the question of boundaries when describing “Europe”. In some cases, the syllabus makes it very clear that it is dealing with the “European Union”, while in others there is a clear sequence of thematic blocks or themes that include countries that are part of the former “Eastern Europe” and Russia. But, actually, this way of considering Europe at least as far as the Urals and the Caucasus in all the themes is fairly exceptional. The attempts appear when dealing with a wider Europe for certain themes (physical environment, population or geopolitics, for example) and with a more limited Europe (EU or “Eastern Europe”) to speak about economics or differences in regional development. In some cases, the solution has been to provide a thematic focus to half or more of the syllabus, while the remainder covers it with a review of different Eastern “regions” (“Russia”, “Russia and Eastern Europe”).

The predominant *focus* of the syllabi analysed is on *classical themes* followed at quite a distance by *regional geography*, and in only two cases we can speak of a *holistic focus* based on a problem-oriented perspective, in accordance with Lévy (1997). This distribution is no surprise, given that teaching of the Geography of Europe in most countries of the European Union has developed from the classical regional focus of French regional geography to a thematic, transversal focus on the territory. In fact, the discrediting of classical regional geography within the geographical community, the appearance of new scientific paradigms (quantitative or critical geography) and the political, economic and social development of the continent have all strengthened this focus. Indeed, integration in the European Union, common policies and the main problems of the countries (in-migration, environmental problems, transport congestion, unemployment, etc.) has favoured the thematic treatment of the subject.

Post-modernism and cultural changes have incorporated new themes and concepts such as multi-cultural, linguistic and religious diversity, nationalism, cultural landscapes, welfare... and some of these can be observed in the syllabi studied. However, *we have not identified a single syllabus with a clear post-modernist orientation.*

The *regional approach* is used in one-third of the cases analysed. In this syllabi it is common to begin with one or two introductory themes related to the whole of Europe: “the idea of Europe”, “the definition of European space”, “the natural environment” or “modes of life”; some also refer to the chosen model of regionalisation and the criteria of boundaries. The rest of the syllabus is devoted to as many issues or thematic blocks as there are delimited regional groups. The criteria for regionalisation tend to follow geopolitical and geographical questions, and Europe taken as a whole is not always represented.

In all of the syllabi, we can observe a concern to incorporate a priority for Central, Balkan and Eastern Europe. But we have to say that the European regional division established and specially ‘Eastern Europe’ is very heterogeneous and emphasises the multiple visions of the mental map of this region.

Occasionally, European boundaries serve as a resource for dealing with specific issues under the umbrella of a greater region. For example, under the heading “The European Union” there are sub-headings that coincide with the countries of the Union. However, this scheme can be found for just thirteen countries, with Sweden and Finland eliminated and included instead as part of the block of “Nordic Countries”. In other cases, the European Union is rejected as a homogenous regional space, and a different system of regionalisation is proposed: “Nordic Europe”, “Western Europe”, “Mediterranean Europe”, “Eastern Europe”, or “Ex-Soviet Europe”.

And in these cases it is interesting to note which countries are included in each category. For example “Mediterranean Europe” may consist of the Iberian Peninsula, Italy and Greece, leaving aside other countries such as Malta, Croatia, Slovenia, Bosnia-Herzegovina, Albania, Serbia-Montenegro, Macedonia, Cyprus (and Turkey) to form part of other sub-groups that are more related to other contents than the basically economic and political “Mediterranean-ness” offered by the countries referred to above.

It is curious to note how certain countries are included in regions that are created in an *ad hoc* manner for some reason or other. For example, the idea of “Norway, Switzerland and Iceland: countries separated from their natural geographic groups”, or “European States Receiving of Germanic Influence” to include Germany, Austria and Switzerland. It is also interesting to note how certain spaces that are usually forgotten, such as microstates, are included.

These categories provide a glimpse of how known geopolitical categories such as “Central Europe”, “Eastern Europe”, “South-eastern Europe”, “Balkans”, “Countries of the former Soviet Union”, and “Baltic States” have been replaced by others or have taken on new contents as a consequence of the process of the (re-)invention of regional and national identities. The “Carpathian Bowl”, “Danube Region”, “Black Sea area”, or a “Central Europe” that extends further east than the traditional *mitteleuropa* are examples of such reformation. However, we should point that all of these are symbolic geographies, socially constructed concepts, and that their content and delimitation are difficult to determine.

The headings for the regions in the East of Europe tend to share certain more or less negative connotations such as “crisis”, “disintegration”, “difficult integration”,

“instability”, “inequality”, “fragmentation”, “conflict” or “transitory problems”, although there is also a more aseptic or even positive vocabulary of terms such as “territorial mutations and new horizons”, “highly defined national identities”, “perspectives for economic growth” and “potential for endogenous development”.

Recurrent, absent and new themes

The geopolitical, economic, social and environmental changes in Europe, along with the role and relationship of Europe to the rest of the world are introducing new concerns and interests that little by little are reflected in educational content.

Generally, the most classic themes observed include: physical framework, characteristics of the population, economic activity and organisation of space. Among the newer ones, the most recurrent are: individualisation of European space, concept of Europe, geopolitical framework, construction of the European Union and the political space of Europe, nation-states and nationalism, environment, in-migration, and regional inequalities.

Paradoxically, a number of contemporary concerns are not particularly visible: the ethnic, linguistic and religious diversity of Europeans and the general recognition of otherness (issues of gender, sexuality, poverty and marginalisation). In this sense, the Spanish panorama shares with other countries (Kitchin, 1999) a slowness in the incorporation of post-modern, post-structuralist and feminist ideas and a critical geography focus into academic syllabi.

Meanwhile, there is also a clear need for critical geography to be incorporated into syllabi in a more obvious way, particularly for the development of critical skills and attitudes in students, as a means of improving their capacity for the contextualisation and formulation of evaluations of their environment.

Neither is there a very strong presence of the socio-political and economic positioning of Europe in the world, nor of the relationship between Europe and other geographical areas. In particular, when other geographical regions appear, these are developed areas with which Europe maintains a relationship of economic exchange. The relationship between Europe and less developed countries rarely appears in syllabi.

There are few examples of specific places mentioned in the syllabi, those cases in which they *do* appear is when the lecturer uses the territory as a case study (“The Swedish Nordland, for example). However, we are aware that in some universities, case studies are included on specific territories through not previously detailed in the description of the course-content.

Final Thoughts

The analysis of the different syllabi leads us to conclude that the main objective is to *transmit knowledge about Europe more than to “europeanise” the students*. Nevertheless, issues related to the European construction or the space of the European Union are emphasized. This can be understood as an implicit will to *make the students face and understand the present European context*.

The syllabi reflect mainly that *the introduction of this new subject has not been accompanied by a renewal of teaching ideas or approaches*. On the contrary, the models of existing regional subjects have been adapted to a new geographical scale. In other words, the object of study varies, but not the way it is approached.

The teaching of the geography of Europe clearly suggests that *there is potential for regional studies*, and although they are not exclusive to geography, they should be approached and recovered by this discipline. First, because *students find such studies attractive*, and second, because *they are highly identifiable with geography*.

Indeed, it is worth recognising the potential of regional geography courses as a way to attract students from secondary education and other disciplines into geography degree programmes, and as a way of showing what the study of the subject can involve. *Holistic knowledge of territories and societies* is fundamental in the modern world and can *offer elements for thinking, deciding and behaving in better ways and with more solidarity*.

Meanwhile, from a methodological perspective, *regional geography allows us to incorporate plurality, synthesis, the relationship between research scales, the connection between different issues, books or materials, and the very exercise of regionalisation is, in itself, conceptually of great interest*.

Regional studies, and among those, the geography of Europe, can better prepare students for professional and geographical mobility and for the understanding of other European languages, aspects that are increasingly more valued within professional careers.

The global vision of teaching geography of Europe in Spanish universities and our experience in the teaching leads us to conclude that the elaboration of a syllabus of regional geography, and specifically of a geography of Europe is a complex task. Nevertheless, we would not like to finish without presenting here some ideas and suggestions that could be applicable in the design of future syllabi:

- To incorporate a problem-oriented approach in the development of the course
- To introduce case studies at different spatial scales
- To elaborate a syllabus with a central axis and different subjects, case studies and specific problems around it
- To promote visits of lecturers from other European countries to participate in the teaching process.
- To introduce in the syllabus subjects related to otherness, like gender, age, ethnicity, sexuality, class, either as separate issues integrated into other topics
- To stimulate critical thinking, particularly with respect to key subjects like migrations, European construction, multiculturalism, environmental issues and so forth
- To promote the study of other European languages in order to improve students academic and professional opportunities in the current European labour market where mobility is increasingly valued
- To take advantage of Internet resources to get access to materials produced by other universities and European institutions.

In short, we need to leave behind us the decline in prestige that has stemmed from an over-emphasis on description and a lack of critical force. Courses on the geography of Europe can show how regional analysis in teaching and research is of great value to geography nowadays.

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Geography Forum: Intercultural Learning Online

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Abstract

The growth in cultural diversity in most European countries and the increasing contacts between peoples from all over the world has heightened awareness of cultural difference. It has become evident that models of geographical education which emphasise 'tolerance' and 'respect' are inadequate. Instead, there is a need to recognise difference and make sensible use of the knowledge acquired to deal with difference constructively. Intercultural learning aims to bring about a change in individual perceptions of the cultural practices of the 'other' so as to learning to live and communicate effectively with people of other cultures. As ICT begins to connect more geographically dispersed Geography Departments, the use of the online discussion board is increasingly advanced as an accessible tool for intercultural learning. It is argued that it has the potential to act as the forum for communication with counterparts from culturally dissimilar backgrounds since it can overcome constraints of space and time. This paper assesses the effectiveness of discussion boards for intercultural learning and considers issues of communication, student interaction, team working and the role played by verbal and non-verbal behavioural indicators.

Key words: Geography, discussion boards, ICT, university, teaching,, cultural diversity, intercultural education, online learning

Introduction

In a world being re-shaped by knowledge technologies which are impervious to political boundaries, young people are living in the conscious presence of cultural difference yet cultural and national identities still maintain their significance. Racism and xenophobia suggest a lack of understanding of the pace of change while employers increasingly seek candidates who are able to cross cultural divides in the workplace. This paper assesses the effectiveness of computer-based Discussion Boards through geography activities for building intercultural competence, an indispensable goal of geographical education today.

From the 1970s, European universities have provided opportunities for geography students to study in culturally diverse settings. Since 1987, for example, the Socrates-Erasmus programme and other European programmes have widened the horizons of thousands of students. Now virtual global classrooms are available to those with the right facilities. Discussion Boards are a powerful forum for geography students to learn through dialogue and collaboration; they afford vital opportunities for moderated debate on controversial topics and they are a convenient means of linking geographically dispersed students. Sensitivity to cultural diversity and improved critical thinking are just two of the outcomes which have been noted by Merryfield

(2003). Ma (1994) considers these Boards to be an ideal means of sharing cultural information and increasing cultural self-perception. Chen and Starosta (2000) add that writing skills can be improved and critical thinking developed although others have pointed out that the effects of cross-cultural communication online are either inconclusive or minimal (Fabos and Young 1999).

Intercultural Pedagogy

Changes in concepts of intercultural learning relate to prevailing socio-cultural and geopolitical circumstances. “International understanding” stems from the post-war era and shaped intercultural education implicitly and explicitly until the 1990s. Hence, models of geographical education which emphasise ‘tolerance’ and ‘respect’ and the belief that intercultural problems can be prevented or solved in a spirit of unprejudiced good will assumed that all people share the same values. The resulting pedagogies emphasise cultural similarities and the development of unprejudiced minds.

Now the relevance of cultural difference has shifted the paradigm for intercultural learning to deal with difference constructively. The learning process is viewed as a phased progression with individuals starting in a state of ethnocentrism and ending when they have incorporated the cultural differences of the other culture into their own behaviour and simultaneously possess the knowledge and skills. It is an ideal state. Bennett (1993) models six stages beginning with the learner in *Denial* followed by *Defence* against difference. By Stage 3 there is recognition, though *Minimization*, of superficial cultural differences. Stage 4, describes *Acceptance of difference* and is, he asserts, the minimum requirement for cross-cultural communication to take place. *Adaptation to difference* through developing empathy at Stage 5 is a step closer to *Integration* at Stage 6. The movement is from “awareness” through “sensitivity” culminating in “intercultural communication”. And so, interaction of increasing intensity is needed to enhance students’ sensitivity to the cultural meanings of diversity and to increase their ability to live and work effectively and harmoniously with people of other cultures.

The Geography Forum: Exploring Nationalism

This paper reports on 28 undergraduates from Belfast, Northern Ireland who collaborated in 9 international teams with 38 students from San Bernardino, California in a four-week online Geography Forum, the core component of the Online Centre for Global Geography Education Project on ‘Nationalism’. The theme was deemed to have rich potential for intercultural learning. The central components were a website, core content, learning activities, on-line reading and assignments. The module used ‘Blackboard’ to support an asynchronous threaded Discussion Board with e-mail, attachments and personal web pages. The materials and tools were designed by Luna-Garcia, Smith, Solem and Ray (2004). The data set for this analysis consisted of transcripts of 547 online contributions, focus group and individual interviews and pre- and post-test questions.

Was Intercultural Competence promoted?

By the end of the course, almost all St Mary's students claimed to have a greater understanding of local and global problems, especially nationalist conflicts. Their cultural self-perception increased as they became more aware that nationalism was an important issue in Northern Ireland; a few even showed reflection on their personal understanding of it. Attitudes to difference may have changed through conversation, too. One in three had begun to accept that cultural differences exist and may account for alternative behaviours and values. Even this limited cultural interaction moved this group of students toward Bennett's Stage 4 – his minimum requirement for intercultural awareness. Before the Project, one third of the students were sure that all young people had similar attitudes to world events – the other two thirds were “uncertain”, some also of communicating with “others”. After the project, only a couple remained hesitant about contact. However, enthusiasm for cross-cultural project work was dampened. Disappointingly, after the module finished, no further contacts took place.

The Experience of Intercultural Learning

Belfast students were given the opportunity to comment on their experience. The majority (61%) focused on “the chance to learn about their own or another culture” whereas only 7% considered the opportunity to reflect on their own or others' attitudes as “a main advantage of the Project”. The remainder highlighted the chance to work collaboratively. After citing the time-pressured nature of the activity, the most frequent concerns were poor team-work and various communication difficulties.

a) Communication Issues

The reality of an asynchronous Discussion Board was that feed-back was unsatisfactory and message senders noted that their enthusiasm had often evaporated by the time a response was received and the point of the exchange may even have been forgotten. Time delay, along with infrequency of contact, was frequently mentioned as a difficulty. These factors may account for the reduced involvement of some members by mid-module. Language difficulties also inhibited discussion and informal rules requesting the use of standard English was not adhered to by students; some of the idioms, dialect words and constructions used were inappropriate. For a number of students difference in styles of expression was of greater importance. Most, though not all, of the Northern Ireland students are from “high-context” cultures (Hall, 1979; Dunlop, 1995) where communication is typically less explicit in the early stages when the need to build relationships is felt to be important. Such students approach conversation differently to those coming from “low-context” cultures where direct communication is preferred. They were slow to build a rapport with low-context partners until they had ‘situated’ the latter. The compressed timeframe was a factor but the significance of the absence of verbal and non-verbal cues soon became apparent. The addition of a face-to face component such as a video-conference would have enhanced the cross-cultural learning experience; indeed students felt “depersonalised” and frequently asked “Can we not have a video link?”

b) Team-Working Issues

Intercultural learning uses a collaborative methodology which depends on working in teams. In practice, there was little international team work in the sense of working towards a common goal, even if there was interaction between individuals; and there were local team issues. Although before the Project the majority of students claimed that they did not mind teamwork, after the project fewer said they enjoyed it, whether local or international. Concern over team composition and team dynamics, uncertainty about roles and difficulties in scheduling work sessions were frequently expressed. On the other hand, for those who enjoyed team work, the interesting team mix excited them and discussion by email outside the public forum developed for a few students. This raises a number of points, the main one being why some students kept their contribution to a minimum. Some claim loss of interest due to poor team communication, either local or international or both. McLaughlin and Luca (2001) point to the way in which group unity depends on acknowledging questions, continuity in discussion and resolving conflicts internally; making decisions within groups can be problematic if there is infrequent contact between members. Group dynamics plays a central part in the online collaborative activity so students wanted agreed discussion guidelines to keep the team together; the Project showed that team members who went off task had more satisfying intercultural encounters. Perhaps a better balance between structured activities and opportunities for free exchange might be considered. This may also alleviate other difficulties; they wanted to be affiliated to the group and work towards a common goal yet still independent enough to feel free to state their own viewpoint and comfortable enough to risk sharing controversial ideas. The make-up of the group, then, needs to be considered very carefully. Participation must also be effectively motivated if a virtual community is to serve as basis for meaningful collaborative work. Student motivation revolves around assessment and, in spite of their awareness that marks would be awarded for Discussion Board communications, other priorities took precedence. A team assignment needs to be designed for which meaningful Discussion Board participation is at the very heart. In addition, a weekly journal reflecting on feelings and opinions would develop intercultural competence and reward individuals.

Conclusion

Online discussion leads to the conclusion that geography students were confident that they knew more about and had a better understanding of their own and other cultures. Indeed, the conversations helped some to recognise that the behaviours, attitudes and values of the “other” are rooted in cultural difference. Developing an awareness of difference, the foundation on which intercultural communication is built, may be the realistic online goal. Reflecting on the experience, technology was not the main problem that students had to wrestle with. Rather, the main issues concerned people, cultures and interaction. The importance of online interaction for collaborative learning is emphasised by Harisim (1995) and the study showed that the issues inhibiting interaction ranged from group dynamics to culturally appropriate modes of expression. Intercultural competence must become an indispensable goal

of geographical education in our universities and schools as global communities of learners develop. Online communication using a Discussion Board as a tool for improving students' learning may prove a promising method to achieve this goal. That said, face to face collaborative learning is even more necessary, even in the age of electronic communications.

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Geography teaching and European citizenship: are things changing in France?

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Abstract

The objective of our contribution is to show how European citizenship in France is built in French Secondary Education through geography teaching. This presents two specific characteristics, a great political centralism and the fact that geography has always been taught with history and civic education up until now.

The current development of secondary level geography lasts for 5 years and puts citizenship as a training aim. This is expressed by the creation of elitist European classes (opening towards Europe, disciplines taught in another language, European “baccalauréat”, study trips...) and the reformulation of history, geography and civic education programs around European topics. All this allows the pupils to understand better what the European identity is and accordingly to built their European citizenship. The secondary school involvement in this reform contrasts with university position where a new reform (the Bologna process) is also taking place. Having more autonomy, universities develop their own programs. The consequences are a great diversity in the place given to Europe, and European topics in university level courses.

Key words: geography, geography teaching, European citizenship, university, European classes, French education programs, civic dimension, spatial analysis, territories of Nation-States

Introduction

In France, geography teaching in secondary school is in keeping with the history teaching. History and geography, as well as civic education, are taught by the same teachers and they represent 10% of the hours taught in High school. One of the major problems that geography faces, is the fact that most geography teachers are history graduates. Most of them are not really comfortable with teaching geography and they tend to minimise their geography teaching. Geography is thus losing its visibility, legibility and some of its autonomy as a main subject.

For French pupils, geography is a way to gain access to aspects of regarding citizenship education. Through the different approaches, the teacher must promote not only national citizenship but also a European one. How can this be done? What are the means available to reach this goal? That is what we present in this paper, taking

Higher education (University) as a comparative perspective. In order to understand better the French case, we will start by a quick presentation of the strength of centralism in the organisation of national education.

The foundation of the French state education dates back to the third Republic (1871–1940). *Le tableau de la géographie de la France* by Vidal de la Blache and *l'Histoire de la France* by Lavissee have long been at the core of our teaching; they enabled the headmasters and the teachers to pass on the values of the Republic such as patriotism and secularism. Today this civic dimension is still present, the two subjects aim at creating a cultural identity for the young among which Europe must be one major aspect. This civic dimension in the teaching of these two subjects is possible because education is national and completely centralized. Teachers in high school and elementary school are employed as civil servants.

Teachers of high school and elementary schools have to enforce the national curriculum. It determines what should be studied throughout the year, for every subject. It shows the number of hours per subject that the teachers should respect. The redaction or growth of the curriculum of a subject is done by the National Education Minister who relies on the national curriculum council which is composed of university professors and National Education executives. After much consultation, the curriculum is published. The National Education inspectors and the Headteachers must take care to enforce it. However teachers can have a certain amount of freedom regarding its application.

In Universities, the constraints of the content of the subjects are less strong. The ministry, according to reforms, proposes a referential structure but it is the pedagogic team of the geographic departments that decides on the general orientation of the teaching. This model has to be approved by the University and the ministry. Once the orientation of the instruction is settled then the responsibility for the contents of the various courses falls on the teachers. Therefore each university determines its teaching orientation according to its competencies and strategy. This notion of strategy is developed with respect to the Bologna process and the implementation of the LMD (licence/bachelors-masters-doctorate/PhD) system. Indeed this system entails that the training is done to enable the students to reach a certain educational standard but it also must answer to a number of requirements according to employment. The approach is no longer national and regional, it is also European and it places education within a competitive European system.

New tools to promote European citizenship in secondary education

First of all, the curriculum and handbooks/textbooks are the principal tools supporting the construction of this European citizenship. The Middle school curriculum of 1995 puts Europe forward as early as the 5^e (12 years old) but it is particularly from the 4^e (13 years old) that it becomes central (Table 1).

Table 1. The place of Europe in history-geography curriculum in Middle and High school (1995)

Niveaux d'étude	Objectifs généraux	Géographie	Histoire	Éducation civique
4^{ième} (13 years) College	Fondements historiques et mise en place des repères spatiaux majeurs	<ul style="list-style-type: none"> • Diversité de l'Europe actuelle • Etude de trois états Européens 	<ul style="list-style-type: none"> • L'Europe moderne • L'Europe et son expansion au XIX^e siècle 	Les valeurs communes de l'Europe
3^{ième} (14 years) College	Europe politique	<ul style="list-style-type: none"> • L'Union Européenne dans le monde 	<ul style="list-style-type: none"> • 1914–1945: guerre, démocratie, et totalitarisme • Construction et organisation du monde actuel 	
2^{ième} (15 years) Lycée	Etude des concepts fondamentaux de l'histoire-géographie	<ul style="list-style-type: none"> • Les principes de l'organisation spatiale (l'Europe n'est pas un sujet spécifique) 	<ul style="list-style-type: none"> • L'Europe en mutation dans la première moitié du XIX^e siècle 	Citoyenneté et civilité, Citoyenneté et intégration, Citoyenneté et travail, Citoyenneté et liens familiaux. Exemples dans le cadre européen
1^{ère} (16 ans) Lycée	Organisation du territoire	<ul style="list-style-type: none"> • Qu'est-ce que l'Europe? • L'Europe des États • Réseaux et flux en Europe et en France • Les régions en France et en Europe 	<ul style="list-style-type: none"> • Le monde, l'Europe, la France du milieu du XIX^e siècle à 1945 	Participation politique et exercice de la citoyenneté en France et en Europe
Terminale (17 ans) Lycée	Europe comme puissance économique et politique	<ul style="list-style-type: none"> • Les trois grandes aires de puissance dans le monde • La puissance économique de l'Union européenne • L'Europe rhénane 	<ul style="list-style-type: none"> • Le monde, l'Europe, la France de 1945 à nos jours 	

This table shows the importance of Europe in the Middle school and High school curriculum. It also emphasizes the coordinating effort that needs to take place between the three subjects (geography, history and civic education). However the variety of the approaches used in these subjects and the weight of the contents are likely to lead to repetition. To avoid the problem and lighten the teaching, the teachers rely on case studies. They enable the students to keep in contact with reality and help them to work from the environment they live in. The “Itinéraire De Découverte” (IDD) (Itinerary of Discovery) in Middle school as well as the “Travaux Personnels Encadrés” (TPE) (Monitored personal work) in secondary school also supports that idea. In this special course time is dedicated to the Europe theme: the students must carry out research and must work on a personal or collective project.

Handbooks are also tools that assist in building up citizenship studies. A study based on the geography handbook of 1^{ère} (High school) shows how through images (maps, pictures of landscape, satellite images) the Europe subject is built up in geography with “stereotype images of high-profile places, maps of Europe with indefinite frontiers on the eastern side and clear cuts on the southern side” (Chevalier, 2001). In spite of these homogeneous images which give a certain profile of Europe, and which obviously provide an oriented knowledge of it, the author underlines that they offer different possible interpretations of European people and places which contribute to pluralistic vision of the European citizen who “craftsman is teacher” (ibid).

Beyond those programs and the tools that are associated with it, European citizenship builds itself up through the implementation of new processes. The most important of these is undoubtedly linked to the “classe européenne” which had over 160 000 students in 3600 sections in Middle and High schools in 2004. The European sections aim to provide teaching of a non-linguistic subject in a foreign language and the deeper knowledge of a country’s culture. The European section exists in German, English, Spanish, Italian, Dutch, Portuguese, Russian, even if the English language is predominant. They are normally started in the 4^e (12 years old) (exceptionally in 6^e, 10 years old) and has since 2003 led to a *baccalauréat* (High school degree) with a European option. In this section, cultural activities and exchanges are organized, aiming at teaching a deeper knowledge of the civilization of the country where the language studied is spoken.

Those European sections, established in August 1992 are quite popular, all the more since the teaching proposed tends to appeal to good students and to create a selection process: the best students thus study less Latin than they did thirty years ago but study many languages and have European opportunities. The links with foreign countries and the participation in projects like Comenius are encouraged.

An experiment carried out at the University of Bordeaux at the beginning of a course of regional geography testifies to the direct effects that these measures have had on the orientation of the knowledge of the students. We asked the students to localize cities on an empty map of France and to indicate the name of the regions where these cities are. Besides this, we asked them to indicate on a clear map of Europe the important cities and to identify the countries where they are. Generally the localization of European towns is more precise than the one of French cities.

The countries are well defined, however for France, the students tend to confuse the names of the administrative regions and departments. Does this suggest that the position of the Nation-State is weakening for that of Europe. This is unsure, but it is perhaps heading this way.

If Europe becomes a major theme in secondary school history and geography, this is not the case in Higher education. Maybe this is because of the scientific orientations of geography there. There is a movement to reduce and even to remove the regional themes in the courses. For example, in the geography department in Bordeaux, in the new curriculum, teaching about “France and Europe”, “Africa”, “Asia”, “America” have been removed to make room for a more economic classification such as “industrial and post-industrial areas”, “developing areas”, “emerging areas”, “transitional areas”. Studies that mention the theme of Europe in geography departments at undergraduate level tend to be general courses, mainly taught during the first or second year. Only a few universities have courses on Europe at Masters level. One example is the “Men, cities and territories” Masters course at Lille. During the first semester there is a course on the “Evolution of policies regarding territory management and European integration”, and during the second semester there is a course taught in English: “Europe: european regional organisation and policies”. Nevertheless, this approach is still marginal in France and it is probably related to the geographical situation of Lille and also to the strength of special agreements and links between the Nord-Pas-de-Calais region (France), Hainaut region (Belgium) and the Kent region (UK).

Europe is obviously not absent from university teaching, nor from research, but it is less an object of study and more a context. Organizational studies like socio-spatial dynamics that are studied take place in a European context. Nevertheless, Europe is a weak scientific paradigm which brings about difficulties regarding its teaching. Which Europe can we teach? The one that depends on a political will (the European Union)? The one that emphasises its scientific side that obviously means a multiple one? Generally, until the 1989–1992 break ups, Europe was not a geographic object very appreciated by the geographers at University (Foucher, 1998). It seems that they tend to study more the territories of the Nation-States and they might have grown away from this only to view the worldwide scale with the tools of spatial analysis and geopolitics. |During the last few years, French geographers have started to nurture the Europe concept by studying its cultural dimension (Levy, 1997). This geography goes beyond the traditional dominant economic approach which started in the sixties with Pierre George and his “Europe des marchands” (Dessieux Knafou and Leon, op. cit.).

As this development reaches its end, we can notice a clear cleavage between secondary school where European citizenship is a academic or pedagogical subject, and University where, even if it is integrating the European tuning process of higher education (the Bologna process), it doesn't label Europe as a scientific culture. However, although Europe is not really considered as a scientific object, it increasingly participates in our living area, and our representations. The interest is then not to favour a Euro-focused instruction which neglects the study of nations but to base

the studies on what exists, to consider both the project of Europe and the realities which are being confronted. Higher education geography should not neglect these topics, if it wants to maintain a certain expertise on questions raised in society from which the European project should not be excluded.

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Teaching Geography in English at Austrian Schools Models, Practice and Intercultural Gain

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Abstract

Since the introduction of ‘bilingual’ teaching in Geography at the end of the 1980s in Austria many schools have met the challenge. Models of ‘bilingual’ teaching, practice in the classroom and figures about its spread in the country will be presented. The role the teaching of didactics plays in this context will be depicted. The intercultural gain of teaching Geography in English – also in the context of web-based teaching – will be pointed out.

Key words: Teaching Geography in English, models, spread, teacher-training at university, intercultural gain, school

Introduction

While the new challenges of the political and social changes in Europe have triggered first activities of using a foreign language as a medium of instruction at schools in Austria, a recommendation of the European Council (Lidauer 2001) and later the European Commission’s 1996 *White Paper* have intensified activities in this field. In Austria English is the predominant foreign language used in this context.

Models of teaching Geography in English

Beside full-time use of a foreign language as a medium of instruction (English in most cases) in so-called bilingual schools four other models characterise current practice in Austrian schools (Abuja and Heindler, 1993). Two of them are outlined here:

1. *Use of the foreign language for a limited period of time.* This approach is taken when pupils first experience the use of English in the Geography and Economics classes (in Austria the subject is called “Geography and Economics”, thus in addition to geographical topics economic topics are also dealt with). It is often practised in the lower grades of schools which have full-time “bilingual” teaching from grade 9 to 12 (students between 14 and 18 years of age).
2. *Aquiring “skills” in interdisciplinary teaching* is another way of taking the first steps towards full-time “bilingual” teaching. Describing observations, experiments, procedures, comparing and evaluating are among these skills. These universal skills are supposed to enable students to tackle various geographical and economic problems in the foreign language.

Currently there are some 30 “bilingual” schools in Austria. In these schools some (for example: Geography, History, Biology and Mathematics) or all subjects are

taught in the foreign language exclusively. Moreover English is used as a medium of instruction in about 200 Austrian Secondary Modern and Grammar Schools. (Abuja 2001) Recent data show that the number of students using English as a foreign language in non-language subjects is still rising. In the school-year 2003/04 16,226% more students were taught one or more non-language subjects in a foreign language than in the year 2002/03. (data from ÖSZ (Ed.) 2005, to be published in the summer of 2005)

Teacher-training

About 82% of the teachers in “bilingual” classrooms of any type in Austria have a teaching diploma in the language and the non-language subject they are teaching in the foreign language. (Grogger and Oestreich, 1997) The subject combination with a foreign language, however, is not required for teaching the “special” classes. If a teacher feels able to take up the job, he or she can do so. Neither of the two groups have a specific didactic training for teaching non-language subjects in a foreign language. Thus the design of and the practice in “bilingual” learning environments are predominantly based on personal experiences of teachers and to some degree on knowledge and insights obtained from in-service teacher-training. Teacher-training at universities has scarcely offered anything in the field, apart from some courses on the topic.

The situation is a little different, though, at the “Pädagogischen Akademien”, where secondary modern school teachers are trained in Austria. Secondary modern schools in Austria are for 10–14-year-old students who do not attend grammar school. The grammar school is supposed to focus more on academic abilities whereas secondary modern schools have a focus on preparing their students for an apprenticeship or some other kind of vocational career. Some of the “Pädagogischen Akademien” offer programmes in which their students and practising teachers are trained together.

As none of these “large-scale” activities has so far taken place in Salzburg the author has begun to offer special training for English as a medium of instruction for future Geography teachers on a regular basis at Salzburg University. This training includes theoretical didactic background, designing lessons and practical teaching of geography in English at a Salzburg grammar school. Special consideration is given to modern teaching methods.

Many researchers in this field found out that teachers in “bilingual” classrooms spend more time on structuring the contents of their teaching and on their teaching methods than average teachers – this actually seems to be a necessity as there is the “language difficulty” which has to be managed. In addition to that D. Wolff (2002, p. 48) states that

“The topics relevant in the content and language classroom help learners understand the relevance of forms of collaboration which are unknown in the traditional classroom, for example group work or project work.

On the whole, then, CLIL (Content and Language Integrated Learning) creates a learning environment which corresponds much better to modern pedagogical principles than do traditional learning environments.”

Additional Value – Intercultural Competence and...

While many politicians and linguists are interested in the additional time students get for language acquisition, from a geography-didactical perspective the motivation to use a foreign language as a medium of instruction is another one. According to most scientists engaged in geography didactics the most important motivation for the use of a foreign language when teaching geography (and economics) is the learning target intercultural competence. (for example, Müller 2000, Hallet 1999, Weber 1993, Ernst 1992). In order to achieve this aim of intercultural competence and – in addition – the ability to communicate internationally about specific geographic topics Hallet (1999) claims that three different thematic fields have to be dealt with in “bilingual” classes. These are firstly, phenomena and issues of the students’ mother-tongue culture and society, secondly, phenomena and issues of the target language cultures and societies and thirdly, cross-cultural, culture-comparing, global, and universal phenomena and issues. This field also implies general geographic themes and from an Austrian perspective economic topics, too. Besides the *use of terminology and the verbalisation of geographic concepts, reading specialized texts* for gist is aimed at.

Getting ideas of everyday lives in other cultures and societies is a current demand in geography didactics (e.g. Schmidt-Wulffen 1999, Uhlenwinkel 2000). Using a foreign language in this context is almost a necessity as finding real authentic material in the students’ own language is impossible in most cases. Also in the context of a multi-perspective approach a variety of authentic materials is essential. Within the framework of thematic teaching in geography there is a great number of case studies that regionally belong to a ‘target language country’. Thus really authentic work is only possible using original material (see for example the cartoon on immigration in Figure 1). In this context using the internet is important for the teacher when preparing materials for the classes and for the students when they are supposed to explore certain topics independently. Of course even independent student work needs some guiding on the part of the teacher. The amount of guiding that should be given by the teacher depends on the student’s age and on their experience with that kind of work.

Conclusion

One might argue that it is strange and unnatural for many students to speak a foreign language in a setting in which all participants speak the same mother-tongue, an experience which the author partially shares. A remedy for this awkward situation,



Figure 1. „Authentic“ (Aunkhofer, Vossen 2003, p. 38)

as K. De Bot calls it, is a variety of “international activities for which the foreign language needs to be used on a daily basis in natural conversational (including virtual/internet based) settings”. (De Bot, 2002, p.31) Communicating in a foreign language can also make sense to the students, however, when they are confronted with the topic in the foreign language especially as switching between mother-tongue and foreign language may also pose a difficulty. Moreover it is necessary to train using the foreign language in a difficult thematic context before using the language as a *lingua franca* when communicating with partners and friends that do not speak one’s mother tongue. Last not least quite a few students say “learning geography in English is much more fun”.

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Do you speak European? or: Why even Geographers should know more than English...

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Abstract

The European Union consists of 25 member states in which 20 official languages are spoken and written. Additionally there are a lot of regional languages which are not seen as official languages by the European Union. But what do we about the competences of European citizens in speaking one or more of these European languages? Several discussions during HERODOT conferences in the last years made a point on the fact that all over Europe the English language is becoming more and more important and that the other European languages are decreasing. On the first sight this seems not to be a problem. Isn't it only important to understand each other? And wouldn't English be the best language for this, the 'lingua franca'?

This paper tries to open new horizons especially for geographers in learning more than English for working in a European and international and intercultural context.

Introduction

Are you a European? What a question – of course you call yourselves Europeans; otherwise you would not try to be involved in the discussion, in the discourse and in the arguments associated with Europe. But do you also speak European? Probably you will answer this question in the negative, because you cannot really imagine what this means – contrary to the idea of being a European. Therefore this paper asks you to think about the idea of speaking “European”.

Being European

In 1994 the Council of Europe noted in its recommendation 1247 that only those states whose national territory is completely or at least partly located on the European continent and whose culture also is closely connected with the European culture can become members of the Council of Europe. Here we are faced with the first difficulty – on two different levels:

- What exactly is accordant to the European continent?, especially because the third article of the mentioned recommendation states that until today the borders of Europe are not defined by international law; and
- What in fact is meant by the European culture?

What is Europe?

There are a lot of approaches to defining Europe. And the shape of “Europe” depends on the person or the association who defines it. Historically the conventional border-

line of Europe is due to Vassili Tatichtchev, the official geographer of Tzar Peter I., and was defined by the Urals. At the end of the 19th century Georgian and Armenian geographers suggested that the southern border of Europe was defined at the river Arax, located in the south of the Caucasus and representing the border to Turkey and Iraq (c.f. Foucher, 1993). Based on these borderlines today 46 states are represented as members in the Council of Europe. But the definition includes also Russia with a national territory that is reaching up to the Pacific Ocean. And there are other associations like the EBU (European Broadcasting Union (with members in Africa) or the UEFA (with members like Israel) whose definitions of Europe go far beyond these borders.

But, by mentioning “Europe”, who nowadays perceives that this represents the “full” continent? In most cases talking about Europe is probably only associated with the European Union which is today covering 25 states, and thereby contains about half of the states of the Council of Europe. By creating the European Union, a joint area has been developed uniting Malta and Northern Finland Debrecen in Hungary and Lisbon. Anyway this marketing area seems to partly look like a Swiss cheese, because some countries, which are located within these political borders, are nevertheless not member of the European Union, but many of them are included in EFTA, the European Free Trade Area.

Besides these three extensive definitions of Europe there are others, covering smaller geographical spaces: such as Euroland, core of Europe, old Europe... This list could be extended or completed by “Europe of Nations”, “Europe of Regions”, “Europe of Cultures”... – and we would probably never come to an end of the various different “Europe’s”.

The existence of all these definitions is not arbitrary. They rather define both a geographical area and an idea. Thus there is obviously not just one Europe. Those, who call themselves European are trailers for an idea, within which one no matter however Europe is naturally delimited, and they identify things in common. But which are those things in common?

Common aspects of Europe

“Europe” is older than each European nation state. The borderlines of Europe were always blurred and over and over again they were newly defined by internal splitting and external demarcations. Europe has always lived as an area of tension between east and west. It had already begun with the splitting of the ancient world into a Greek and a Latin speaking part. The splitting continued under the banner of Christianity with a catholic and an orthodox orientation. It was followed by further splitting due to the Thirty Years’ War, which led Europe to the abyss. The last major splitting was into a western and an eastern, a democratic and capitalist, a dictatorial and communist part. This last division was overcome as recently as the 1980’s. The recently achieved extension of the European Union added 10 further member states and is an attempt to finally cement the Union and overcome fragmentation.

However, the various splitting of Europe as well as the three major phases of self destructive war, which the continent has experienced in its history (the Thirty

Years' Religious War in the 17th Century, the national politics of the ascending European hegemonial powers since the 18th Century and finally the destructions of Nazi Germany in the 20th Century), did not manage to completely destroy the traces of a common cultural identity. There still seems to exist certain common cultural aspects, which throughout all the differences constitute something like a cultural identity of Europe. (c.f. Nida-Rümelin, 1996)

Does a European culture exist?

Is there a common European culture? What characterises and what threatens it? What is culture and how can it be defined? On the one side there is the common ground of having European origins in the Greek classical period, with the connection of free culture and scientific rationality. There was also the Roman tradition of state and law, which did not lose its strength and influence during the centuries until the present times. On the other hand, the Christian religion contributed substantially to a cultural identity of Europe. And there are at least humanism and enlightenment, which initiated the cultural conditions for democracy, autonomous science and social progress during modern times. A European education and science community could be developed from early modern times, into which became variously interlaced the basement of the cultural identity of Europe.

Rationality, critical thinking, Christianity, human rights as well as democracy and a modern version of the welfare state – “culture” seems to be more than a term from everyday speech, with which for example we can speak about music, about literature or science (even if especially in this point European-wide mutual influences are obvious).

Indeed, the term “culture” must be extended in a social and anthropological sense: Hereby is meant a culture of values, value orientations, ways of living, adjustment to ecological conditions, thus the kind of the life which differs within Europe and changes continuously – in European and global interaction.

By setting the term identity to equate to “a basis”, one could speak of a common cultural identity. Within this identity the diversity and/or the presence of different currents will be always mentioned and particularly emphasized. The difference of the cultural and ethnical societies and communities leads to a unit with diversification. This is a (and perhaps *the*) typical characteristic of European culture. The variety of languages additionally belongs to these varieties. In the next section some considerations about this will be presented.

The world of European languages

Article 15 of the common explanation to the 40th Anniversary of the Elysée contract encourages the idea of diversity: “The variety of the languages is a wealth of the European Union. Learning languages is the source of the development and a chance for the young generation” (Schröder/Chirac 2003; translation by the author). In today's Europe of the European Union 20 official languages exist in the context of 25 States. Beyond that, there are an additional large number of regional languages, which are partly spoken by minority groups that live within the European Union. Beyond the

borders of the European Union there are also further languages which have so far remained unconsidered, such as Turkish, Russian or Albanian. It can thus be easily demonstrated that we live in a Europe of immense linguistic variety.

This diversity has had an important influence on European culture. In the areas of stress between east and west as well as north and south, there were times, in which existing languages became replaced by the language of the “conquerors” and/or were complementary to and enlarged by the language of the immigrants. In the first case this followed strength as measured by the power of the stronger one. In the second situation, better communication and integration was ensured by adjustment. Evidence of the impact of these times are for example the numerous borrowings from the French language, which are possessed by most European languages.

The conquest of England by the Normans in 1066 had a special influence on the English language. The use of French by the aristocratic upper-class led to the fact that numerous French words took their entrance into the English language system – and thereby also their behaviour was connected and accordingly maintained. This influence, especially in the vocabulary, was so meaningful that the French linguist Claude Hagege could prove that the current existing influence of English on French is far smaller and therefore he speaks of a positive “leaning word commercial balance sheet” of the French language (c.f. Hagege, 1996a; 1996b).

Various identities are connected with the linguistic component. This is shown for example in the efforts at autonomy of some European regions which point themselves out by the special meaning of their regional language(s). Thus some regions exist in which both the official national language and the regional language are to be found e.g. on traffic and direction signs. Or as a further example: neighbouring languages i.e. the languages of the respective direct neighbour can contribute to the regional identity of humans in a border region (Finger, 2001).

Based on these examples it becomes clear, how much special influence a language has on identity. The variety of language is a special characteristic of the European cultural unit and so the existing cultural characteristics of Europe would not be conceivable without this linguistic diversity. For sure there is the necessity of a vehicular language because one cannot expect that each person in Europe could understand or even speak all languages. Not for nothing are there working languages, for example in the context of the committees of the European Union (English, French, occasionally German).

Altogether European-wide and far beyond that, an increasing dominance of English as a *lingua franca* is shown. Past HERODOT conferences showed this and as a result communication and cooperation between scientists became easier. But at the same time the dominance of English as *lingua franca* leads to a constant decline in the learning of further foreign languages in nearly all countries all over Europe. It seems to be like the idea that knowing the English language ensured European-wide understanding. But why should specifically geographers then be able to speak more than only English?

Why geographers should be able to speak more than just English

The HERODOT survey about the impacts of academic geography on the job mobility of Geographers in 2003/2004 has shown that the job market for geographers is very diversified. However in most occupations nowadays, apart from the necessary technical qualification a linguistic competence is also expected. The knowledge of only the English language is thereby mostly no longer sufficient for employment in Europe. Further language knowledge increases the chances of work. Beyond that, workforce mobility within Europe requires apart from knowledge of English further profound language knowledge at least of the country in which the person would like to work. However, improved chances on the job market cannot be the only reason for learning foreign languages. That would be too little.

Let us therefore not just think of the “large” job market for geographers. We instead should consider arguments within the discipline. Geographers concern themselves for example with the question about the meaning of places: “Places are distinctive and physical, economic and cultural processes create this distinctiveness.” (Owen & Ryan, 2003, 6–7) These cultural processes have to do also with a linguistic component. And if one considers that “[...] geographers view place as a concept that is experienced by the individual rather than only defined by social and scientific processes” (Owen & Ryan, 2003, 7), one must come to the conclusion that it is necessary to come to an approach where the individual will be able to reconstruct the meaning of places. And this only can happen by personal contact.

Let me clarify this by two examples. The German weekly paper “Die ZEIT” visited in April and May 2005 four new member countries with – for us – new languages. The first presented country was Malta. “Malta is bilingual. English is used by the Maltese only for business and for the tourists. Among themselves they speak Maltese.” (Straßmann, 2005) While searching for the identity of Malta the author again and again comes upon amazement, because he is interested in the Maltese language. Finally, within the discussion with a 75 year old Maltese, he comes to the conclusion that Maltese is the language of the heart. To come closer to the inhabitants it is important to engage with the language.

The other authors of this series of articles came to the same conclusion in Hungary, Slovenia and Poland. So those who expose themselves on holiday trips to the trouble of learning and using at least the most important “fragments of everyday life communication”, will state that the hearts of the people will open. Few will expect knowledge of their language, therefore the effort makes everyone happy.

The second example is based on an economic principle, which increasingly becomes more important. For a company one or perhaps even the decisive function of a foreign language is communication with the customer. In today’s service economy the customer strongly affects the behaviour of the service provider. Therefore it is especially the case that smaller companies aim for close customer loyalty; and that means that the best language is the language of the customer (c.f. Nida-Rümelin, 1996). The results of a Belgian study on the importance of languages in business show that 63% of the Belgian enterprises use the German language when working with German enterprises, and not English (Boulton & Vlieghe, 2001). This trend to

use, in business, the customer's language could probably be demonstrated in each country of the European Union. Nevertheless we could say that these few examples are not a compelling reason to produce multilingual geographers. But if geographers take to their task seriously and really want to explore the earth with all their facets and their changes they cannot refrain from getting in contact with people who change and modify the Earth, who are affecting changes and again are themselves being affected by these changes. The native language of the people is thereby the ideal starting place.

The peculiarity of Europe exists in the tremendous variety of its languages and the cultures represented by them. The variety is not a handicap for a common future of the European languages, because the conservation of language variety is a condition for the unity in Europe. The Europeans live in the midst of this multiplicity and should therefore educate their children in several languages (Konrad, 2003).

Eminently the linguistic and cultural variety of Europe demands from us as representatives of a cultural-scientifically embossed discipline up to go forward with good examples and not to look for the entrance to cultures by using only one vehicular language. Multilingualism is therefore important – also for geographers. Thus let us explore Europe – with more than just one language.

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Intercultural education in Italian Geography

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Abstract

Italian geographers have long been interested in migration issues, with their main focus being traditionally on quantitative and distributive aspects. Since the 1970s, they took up an interest in more specific issues, such as gender migration and, from the 1990s, integration. The increasing presence of ethnic minorities in Italy has changed the ratio and relationships between migrants and locals, as can be most easily appreciable in schools. This has unchained problems related to integration and exclusion, with special vigour in large urban centres, where extremism is increasingly manifest. Geographers have become aware of this, and of the role the discipline can have in promoting the development of a intercultural society. Thanks to its educational vocation, geography can teach that there is equity among all regions in terms of rights, in spite of the undeniable environmental and cultural differences. More and more often geographers have presented papers or promoted specific conferences on this topic. Intercultural issues are being recognised as the only way forward for the social, economic and cultural development of the country.

Key words: Italian geographers, geographical education, migration, intercultural problems

Early Studies

The interest of Italian geographers has been associated with the problems of emigration concerning their national territory for a long time. This migration was remarkable between the end of the 19th century and the beginning of the following century and was renewed with “less emphasis” between the two wars and after the Second World War. In the latter period, migratory flows were in fact characterised by a definitive emigration towards the Americas and later towards Australia. Consequently this produced negative effects on the regions of departure, deprived of labourers and loved-ones, and also in the areas of arrival because of the difficulty of social and productive integration into the new territories in which the emigrants found themselves.

There were several reasons for being interested in these themes, both epistemological, because they formed part of the geography of population, and related to the protection of the national communities that were formed in distant countries but also because they had to face profoundly different natural and political environments, with different traditions and languages, and other laws and lifestyles. In addition, Italians were met by the typical diffidence towards the foreigner; they were often relegated to the least desirable work, and fell into the inevitable tendency to face

the new contexts by creating highly cohesive ghetto communities that sometimes favoured the origin of criminal organisations.

Geography and Migration

It was, not until 1961 before a national Geographic Congress concerned itself with the geography of migration. On that occasion, Elio Migliorini, after having reaffirmed the multidisciplinary implications of the theme of migration, highlighted the contribution of geographers, pointing out the areas of research most distinctly of territorial character, without however touching cultural aspects: in any case, the topic was limited to Italian emigration abroad. In 1975, with the Salerno Geographic Congress, geographers took note that Italy was now becoming the country of arrival for the disinherited in search of work (Caldo, 1975), with successive in-depth studies on the Sicilian (1981) and Piedmont (1984) realities. In these studies the author showed particular interest in cultural exchanges and, above all, underlined social aspects, work and housing conditions, the difficult encounter between profoundly different lifestyles and cultures, and the lack of mutual linguistic knowledge and centres of associative centres.

Still in the 1980s, in coincidence with the increasing presence of female geographers, a sensitivity towards more specific themes developed, such as the geography of gender, aimed at showing the female contribution to immigration and to see immigration from the point of view of women (Arena, 1983; Brunetta, 1995–96). At the 1983 XXIII Geographic Congress, Vincenzo Guarrasi took up the relationships between migration and the local culture, with reference to the Tunisian presence in the fishing town Mazara del Vallo. Then starting from the 1990s, the Italian scientific research of cultural issues and migration became increasingly richer, coincidentally with the increased weight that foreign immigration was assuming in Italy. Symposia, meetings and study seminars became occasions for comparison and discussion about the initial results of research. In-depth and accurate analyses of the phenomenon at different levels (national, regional, local) were made by the workgroup of the Association of Italian Geographers (A.Ge.I) on foreign immigration in Italy, initially coordinated by Giovanna Brunetta.

In 1993, in Cagliari, Maria Luisa Gentileschi, already coordinator of the A.Ge.I workgroup on population mobility in Italy, organised, in collaboration with other geographers, the first Italian-British Symposium on the Geography of Population with the title “ Questions of population in Europe: urban areas, ethnicity, centre-periphery dynamics”. On this occasion, Italian and British geographers confronted each other on themes of great topicality. As far as the Italian reality was concerned, specific research highlighted the situation in a number of regions most interested in the migratory flow: Friuli-Venezia Giulia, Veneto, the province of Messina, and the metropolitan area of Bari (Gentileschi, King, 1996).

The first meeting of geographic studies entirely dedicated to the theme of recent immigration was held in Macerata in 1996 with the title: “Immigration and multi-culture in Italy today: Territory, problems and didactics.” It tackled various aspects, among which emerged the first most clearly intercultural contributions, the role

of geography in the process of integration, and especially the role of the school. A number of contributions dealt with themes such as: migratory movements between diversity and mutual acceptance, ethnic conflict and multiculturalism, immigration and religious pluralism, problems of female immigrants, illegal immigration and criminality, intercultural and new didactics of geography, and intercultural education in secondary schools and universities (Brusa, 1997).

The appointment in Macerata was repeated two years later in 1998: “Immigration and multiculturalism in Italy today: citizenship and exclusion, the Adriatic frontier and other places of immigration – society and the school”. In this case too intercultural questions were dealt with, such as the geography of citizenship and exclusion, compared female migratory experiences, immigration and health, immigration between integration and diffidence, intercultural education and scholastic curricula, geography and multicultural training (Brusa, 1999).

In Aquila, still in 1998, a meeting took place on the theme “Multiculturalism: conflict and living side by side in the multiethnic society”, in which the problems linked to multiculturalism and identity, immigration and exclusion, racism and xenophobia were considered (Di Michele, Gaffuri and Nacci, 2002). On the threshold of the new millennium, therefore, almost all the geographic research on immigration was linked to the themes of multiculturalism and integration. An international conference was held in 2001, organised in memory of Giorgio Valussi by the University of Udine and Trieste, during which Italian and foreign scholars confronted each other on the new migration issues in Europe and Italy, with study cases dedicated to single regional realities (Bellencin Meneghel, Lombardi, ed., 2002).

A few months after the Friuli conference, in June 2001, a meeting was organised in Vercelli on the theme of “Processes of globalisation of the economy and geographic mobility”, that returned to examining the problem of integration and the exclusion of immigrants in social, cultural, working and school life in Italy (Brusa, 2002). In Trieste, in March 2002, a new conference was held on: “Geographic mobility in Italy: characteristics and trends, regional differences and territorial distribution processes in the new multicultural society”. During this event it was possible to examine the first results of the same-named research programme, co-financed by the Ministry of the University and Research, and coordinated by Pio Nodari. Among the communications presented, an increasingly growing interest emerged in investigating into the immigration of foreign women in Italy and the problems connected to their social and employment integration.

Recent Developments

The aim of the meeting held in Fano (The Marches), in March 2003, entitled “Interculture, Geography, Training” was to promote a debate among institutions (universities, schools, public bodies, voluntary associations), in order to unite the efforts and initiatives in support of intercultural dialogue. Other objectives were to reaffirm the centrality of geography in the processes of intercultural integration and insist on the connecting role that our discipline can play with respect to other scholars equally interested in the problem of immigration. The conference, organised by the Univer-

sity of Urbino, was divided into the following thematic sessions: the geographical approach to migration issues, immigration in a regional perspective, the emergencies created by new migration, immigration between normality and deviance, intercultural in the school and daily life, and the role of associations and local bodies in intercultural activities. New themes were faced during the conference sessions, in particular training, geographic education for sustainable space sharing, the activity carried out by Caritas Italia, stereotypes and prejudices towards non-Europeans, the difficult integration of Roma people, immigration and drug addiction, and finally intercultural and the teaching of geography in teacher training schools (Persi, 2005).

Conclusion

To conclude, in the face of an increasingly enlarged and differentiated European Union, and in the face of immigration coming not only from the Mediterranean and Eastern European area, but also from very far-off countries (the Far East, Latin America, Sub-Saharan Africa), accompanied by the tendency of numerous ethnic groups to constitute stable and permanent communities, intercultural themes are a field of great contemporary interest for geographers who intend to work to develop the education of welcoming, solidarity, and respect for different lifestyles and thought. To this end, schools and universities would be doing a good job if they managed to consider diversity as a value and avoid stereotypes and nationalistic or Eurocentric views. This requires a modernisation of approaches, instruments, textbooks, and teachers, distinguished by an increasingly more open, integrated, systematic and, fundamentally, geographic training.

Italian geographers can find important opportunities in the organisation of new courses, especially those at Masters level, if they are to promote an intercultural education not only for teachers, but also for personnel working in institutional structures or, economical and cultural associations.

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Geographical education vs. cultural education and education of culture in Polish schools – theoretical reflections

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Abstract

The article presents the meaning, place and role of cultural education, education of culture and intercultural education in Polish teaching of geography. According to the literature these thematic links can be important elements in reaching the leading goal of education; that is to prepare students for adult life in individual and social dimensions. The author gives a justification of this proposed thesis with establishments meaning of cultural education and education of culture in the context of geography teaching. These changes in programme of Polish geography education create an enormous possibility for the proper realisation of the paramount aim of education, that is to prepare students for adult life; the proper realisation of subject aims in desired hierarchy (from convictions and attitudes, skills to understanding patterns); while also increasing the prestige of geography as a study discipline and subject of teaching.

Key words: culture; cultural education; education of culture; intercultural education; teaching of geography

Introduction

Social, economic, cultural and political transformations in Poland and all around the world demand from the nation to prepare for new life conditions. Thus, they are the reason for changing goals and verification of the content of programme of education. The necessity of adjusting the educational system to emerging needs is inevitable. Therefore, new spheres of interest have emerged for scientific studies of detailed teaching including teaching of geography. Piskorz (1997) emphasizes the necessity of undertaking these challenges in a range of preliminary research and demonstrates the achievements of polish teaching of geography, the pace and wide range of reforms of civilization, not only enable, but somehow make it necessary to include new problems in research work. Among the basic points in his research he includes undertaking the problem of “education for international agreement, cooperation and peace” (p. 202). Piskorz doesn't use the term ‘education of culture’ or ‘cultural education,’ but he accepts the idea of creating agreement and cooperation, by which he refers to the tasks of education of culture and cultural education being emphasized in sociology studies and in teaching of culture. According to Ziolo (2002) geography has a significant potential in this area, as it is in its nature to join social and cultural matters, to define relation between them in different scale of spatial structure.

Nowadays, according to the literature, the cultural education and the education of culture, when considering the conceptions of geography as a subject, and following its philosophical assumptions, can be the important link in reaching the leading goal of education, that is to prepare students for adult life in individual and social dimension. Justification of this proposed thesis requires establishment of the meaning of ‘cultural education’ and ‘education of culture’ in the context of geography teaching.

The meaning of the word culture in scientific literature, journalism, and in colloquial language is presented in many different ways, and in effect is understood ambiguously. Anthropologists interpret the meaning of a word ‘culture’ very extensively, as the achievement of mankind in almost every sphere of life (economical, political, social norms etc...). Encyklopedia popularna (1992) defines culture in the same way, as the combination of material and spiritual achievement, which is being strengthened and enriched in the course of history. It has been written there that culture includes the material products, social institutions, norms of coexistence, the way of behaviour, criteria of esthetic and moral judgments. Teacher of geography Licińska (1999) understood the meaning of the word culture in a similar way. She writes that culture is “everything that in the behaviour of individual and in equipment of members of human societies is a result of mass activity...” (p. 82)

In everyday life the word culture is used and understood mostly as:

- definition of so called high culture (e.g. painting, sculpture);
- definition of popular culture (e.g. television)
- adjective: a *civilized man* means the one knowing the norms of good manners, or a man actively interested in literature, classic music, architecture.

Cultural education

Let’s pass to the establishments of cultural education. Because of the limitation of the size of this article, the author presents only some of the definitions (apart from many others) of this term. Wojnar (1995) writes that the education of civilization is both knowing the cultural heritage of the region and the introduction of its judgments, and participation in cultural life. This education should be aimed at strengthening the active and creative participation of people in the world, which is equal to multidimensional enriching of the human being, not only in mind, but in terms of sensitivity and expression as well. Regional and cultural education presented in such a way seems to be very close in its guidelines and meaning to cultural anthropology. In both the education of civilization and the anthropology of culture appear very significant indications and references to human beings as a creator of all: we assume learning about the effects of civilization, industrial and urban changes, the form of coexistence and way of life. (Olszewska-Dyoniziak, 1991)

According to Banach (2001) cultural education is preparation for choosing values by “association with culture” both material and non-material, which should enrich student’s sensitivity and imagination. Żurkowski (2003), a teacher of culture represents a similar attitude, he defines this process as education directed on purchasing values by human beings. According to him, in cultural education people should take over and form the values from the surrounding space. The process of cultural

education progresses from the initial contact with the cultural goods, and receiver's interior contemplation of this event, up to the creation of culture by himself.

Orłowska (1999) a geographer, interprets cultural education as "a cultural view on life" which means the synthesis of knowledge about the natural environment and thus the material and non-material culture of a given region. According to Orłowska this kind of outlook on the world represented in the process of geographical education seems to be natural and obvious. At the same time, it creates a chance for a solid place for geography in the system of education, which is going through transformation. The outlook of Orłowska is close to the author of this article. (Piróg, 2004)

Nowadays in Poland, geography of culture is growing more intensively. Nevertheless the literature of this subject matter does not appear to provide a clear explanation of the meaning of cultural education in geography. So many questions remain unanswered, such as what are its main goals, aims and planned student's achievements? Even though the term is frequently used in by teachers and geography teachers. Therefore an attempt to define this term needs to be undertaken in order to provide opportunities for meaningful discussion about its final shape.

On the basis of the analysis of the literature and by including the peculiar character of the subject of geography, cultural education in geography should be a process -steered by a teacher- of learning, associating and interpreting of the surrounding space, transformed by the products of material and non-material culture, coming from a human activity. This association should manifest itself in conscious contact with the products of material and non-material culture and in the active participation of the pupil/student in different spheres of cultural life (e.g. musical concerts, theatrical plays, exhibitions, etc...)

The goals of such a defined cultural education therefore should be:

- learning about the situation of material and non-material culture, typical for a given region, and consequently understanding the cultural landscape of that area;
- building bonds with the place of living and country; building respect towards cultural heritage;
- increasing interest of the products of culture and desire to cooperate for its protection and development;
- distinguishing a role of people in creating culture and a role of culture in shaping people's personalities.
- shaping human beings that are sensitive and open towards surrounding space
- developing an inner need (in people) for active participation in cultural life.

The programme of cultural education in elementary school, gymnasium and high school has been stated in *Podstawa Programowa*, (2001). The context of the programme clearly obliges students to deal with this subject matter in almost every subject at school. In elementary schools pupils should be taught:

- in history about the most important part of Polish cultural heritage;
- in art about cultural landscape, and should also experience the contact with art works by admiring monuments, visiting galleries, exhibitions;
- in nature studies about the interdependence between the factors of natural and cultural environment.

In the gymnasium and in high school extending, and deepening one's knowledge about the above mentioned subject matters, should take place. The direction of geographer's activity in the practical realization of the cultural education should mainly be the proper realization of the international programme *Regional Education – the cultural heritage of the region*. The programme should be undertaken in three areas of education, in elementary school classes 4–6; in the gymnasium and in high school.

The educational aims of this way of working with students are most of all to extend knowledge about the culture of their own region, to provide physical contact with the local and regional environment, to strengthen national identity and develop a regional identity. The tasks of the school are focused on the introduction of pupils into the world of traditions occurring in the region and its' values, supporting contacts with people and institutions and dealing with protection and multiplication of the cultural heritage of the region. The points of this programme include: dialects and regional language, traditions and habits, the main monuments of nature and architecture (Dziennik ustaw nr. 61, art.126).

A very difficult task in the process of achieving this programme is combining the skillful combination of historical and geographical facts with knowledge about art, and to give coherence to the programme. The historical-geographical characteristic of the region presents no difficulties for a geographer, as it corresponds with studying and teaching geography. Aspects of cultural education however, can cause some difficulties, and definitely demands from teachers some self-education in the subject matter. The natural variety of geographical space can only be revealed when we become acquainted with the cultural landscape, with emphasizing its aesthetic and symbolic values.

An effective cultural education of pupils includes, most of all, contact with the material and non-material wealth of the culture of a given region. The part of a teacher-geographer is to:

- enable a student to have contact with this reality;
- find and choose from the wealth of the surrounding space the elements of a material and non-material landscape;
- support student in interpretation and judgment of this reality and to
- motivate the student to learn, evaluate and judge in an independent and emotionally active way. (Piróg, 2003).

Education of culture

The present and future reality, in which people exist, is shaped intensively by the processes of globalization and integration. According to Nikiforowicz (2001) aspiration to unity and integration is a positive phenomenon, because in the long run it causes an increase of self-identity and care of the common values. Concern for others is also essential, as it causes the disappearance of stereotypes and xenophobia, development of sensitivity and shaping human's cooperation. On the other hand, the inevitable processes of globalization are risky to the above goals because they encourage standardization, which causes the disappearance of, the much needed variety, and resulting loss of cultural identity.

It is difficult to avoid tensions and clashes when globalization, integration and regionalism cross each other. At this point there are many significant opportunities to mitigate the negative phenomena by education, these are described in the literature as cultural, intercultural and multicultural. The basic idea of this form of education is to get rid of negative stereotypes and groundless fear towards other nations, people and different skin colour by being in touch with their nature and customs. If learning is conducted in this way, education might be an effective instrument to reduce tensions and antipathy in relations with foreigners, and improve self-esteem. According to Golka (2001) a sociologist, thanks to such education, the student might perceive other cultures not as a thread or unfamiliar and arousing fears but as 'a window with a view on the new landscape'.

According to Nikiforowicz (2001) intercultural education is the supporting activity of individuals and group of people in creating dialectic process and shaping awareness of universal solidarity by:

- getting acquainted and understanding one's own culture;
- overcoming the tendency to closing oneself in one's own cultural circle;
- opening oneself, understanding and respecting others;
- the desire to meet other cultures, shaping sensitivity and ability for cooperation.

The terms education of culture intercultural, and multicultural are more common in Western European countries and the USA. In its meaning they are close to the above-mentioned establishment of Polish multicultural education. They symbolised both the activities for getting acquainted and opening to other cultures, which should be mostly responsible for building tolerance, understanding and respect for different groups of people in respects of their race, nationality, sex, religion, and the acquisition of skills in co-existence and cooperation with others. (Anders., 1995)

The education of culture should have a significant place in geography, especially now that Poland has joined the European Union. In the course of this, the issues of regional geography should be clearly emphasized as part of the educational aims in order to make students more tolerant towards diversity.

Conclusions

To sum up, the above paper suggests that thematic links should occupy a very significant place in the contemporary teaching of geography, because they create an enormous chance for:

- proper realization of the paramount aim of education, that is to prepare students for adult life;
- proper realization of subject aims in desired hierarchy (from convictions and attitudes, skills to understanding patterns);
- increasing the prestige of geography as a study and subject of teaching.

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Developing global citizenship through geographical education: examples from Kerala, India

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Introduction

The revision of the English National Curriculum in 2000 (QCA 2000) introduced the “new agenda” of citizenship and sustainable development in primary and secondary schools. This research project has been examining how primary schools have planned or are planning to introduce these themes into their curricula. We have considered ways in which the study of geography, on a national and international scale, can provide a context for teaching these topics. Some key aspects are:

- The impact of the concept of citizenship in primary education in the UK and the wider world.
- The rationale for learning about citizenship and sustainability as part of a primary education curriculum.
- The development of citizenship and sustainability education through primary geography.
- Making connections across the primary curriculum.

Key words: citizenship, education, primary education, curriculum

What is Citizenship Education?

The UK government report on education for citizenship (QCA 1998), the Crick Report, set out three interrelated strands:

- *Social and moral responsibility.* Pupils developing self-confidence and socially and morally responsible behaviour in and beyond the classroom, towards those in authority and towards each other.
- *Community involvement.* Pupils learning how to become involved in the life and concerns of their neighbourhood and communities
- *Political literacy.* Pupils learning about the institutions, issues, problems and practices of our democracy.

At national curriculum key stages 1 and 2, from ages 5 to 11, Crick emphasised the development of social and moral responsibility, community involvement and some basic aspects of political literacy, for example knowing what democracy is and the basic institutions that support it locally and nationally. Crick refers to citizenship as entailing both rights and duties and as being concerned to promote the “common good” (Crick 2000). The report seeks to encourage the education of young people on the ideas of civic virtue and participation as well as developing personal autonomy.

Crick advocates these principles by referring back to one of the classic article on citizenship by Marshall (1997) first published in 1950, “Citizenship and Social Class” in which he states:

“Citizenship is a status bestowed on those who are full members of a community. All who possess the status are equal with respect to the rights and duties with which the status is endowed. There is no universal principle that determines what those rights and duties shall be, but societies in which citizenship is a developing institution create an image of an ideal citizen against which achievement can be measured and towards which aspiration can be directed.”

The Crick report has been criticised for not recognising enough of what some call the “politics of difference”. Garratt and Piper (2002) raised an important issue regarding the role of the monarchy and how this relates to citizenship in Britain. We in Britain are still “subjects” within a monarchy system and although Crick looked at this issue he felt the concept of “British subject” and “British citizen” seem much the same to most people, clearly a contentious point.

Many researchers, including Olssen (2002) feel that Crick failed to acknowledge or recognise the distinctive characteristics of different cultural groups in Britain and that it ignores the dimension of multiculturalism. The report tends to overemphasise curricular as opposed to extracurricular approaches to citizenship education. We need both, in schools and in the wider community.

These issues were taken up by the Parekh Report which was the outcome of the Commission on the Future of Multi-Ethnic Britain set up in 1998 by the Runnymede Trust (2000) an independent group which promotes racial justice in Britain. The Commission’s remit was to analyse the current state of multi-ethnic Britain and propose ways to develop a more vibrant and fair society. The report examined the concept of “Britishness” and advocated the use of “British” in a more multi-ethnic way such as “Black British” “Asian British”. The report was based on the following principles:

- All people have equal worth irrespective of their colour, gender, ethnicity, religion, age or sexual orientation
- Citizens are individuals as well as members of local and regional communities. Britain is “both a community of citizens and a community of communities”.
- Since citizens have different needs, equal treatment requires full account to be taken of their differences.
- Every society needs to be cohesive and must find ways of nurturing diversity whilst fostering a sense of belonging and a shared identity among its constituent members.
- Whilst respect for difference is important every society needs a broadly shared body of values, including human rights, ethnic norms which respect human dignity, the equal worth of all, equal opportunity for self development and equal life chances.

The Parekh Report thus provides an important counterbalance to Crick in that it recognises “difference with unity” as its main theme.

An important template was provided by Oxfam with their definition of global citizenship (Oxfam 1997). This has three key elements:

1. Knowledge and understanding
 - Social justice and equity
 - Diversity
 - Globalisation and interdependence
 - Sustainable development
 - Peace and conflict
2. Values and attitudes
 - Sense of identity and self esteem
 - Empathy
 - Commitment to social justice and equity
 - Value and respect for diversity
 - Concern for the environment and commitment to sustainable development
 - Belief that people can make a difference
3. Skills
 - Critical thinking
 - Ability to argue effectively
 - Ability to challenge injustice and inequalities
 - Co-operation and conflict resolution

Further information to provide guidance to primary schools on teaching global citizenship is contained in the Oxfam handbook (Young 2002) and by Grimwade (2000).

Recent research activities

Our research project in the first year involved working intensely with a case study partnership school St. Luke's Primary in Kingston, London. Some initial awareness-raising of citizenship issues was completed during two professional training sessions with teachers. These involved carrying out a citizenship audit of what is actually happening in the school and developing a strategic plan for the next three years. The school has developed close links with a school in the Republic of South Africa (RSA) and this became a particular focus for finding out how citizenship was being developed there. A subsequent visit to the school revealed that the education system in South Africa is changing rapidly and that the concept of citizenship there is only in the early stages of development. Both schools worked on structuring a joint curriculum for three years which could be developed in the UK and RSA. There have been many challenges to the development of this programme particularly through the lack of computer facilities in the RSA.

The RSA has introduced a new curriculum called Outcomes Based Education that has eight areas of learning. Citizenship is developed in a cross-curricular way through the Human and Social Sciences Learning and Life Orientation Learning areas. Pupils adhere to rules that they devise and these are displayed in the classrooms. There are lessons on positive thinking and raising self-esteem. The children are taught right from wrong and are made aware of the need to look after their environment e.g. not

dropping litter. There is circle time in some schools. Political literacy however is not developed in either the primary or secondary curriculum. The children are encouraged to know about and to take an active part in their own communities.

Contacts were made during the first year of research with 10 primary schools in England to determine how they have prepared to include the citizenship programme of study. Discussions revealed that all the schools had well developed Personal, Social and Health Education plans and that they were aware of the need to enhance their activities to include other aspects of citizenship. Currently the global dimension is under represented and the European dimension virtually non-existent. At KS2, ages 7 to 11, in depth knowledge of local services, local and national government is weak.

During the first year contacts were also made with organisations such as Oxfam, Warchild, Centre for Education in World Citizenship (CEWC) the Geographical Association and the International Geographical Union (IGU). These agencies are developing relevant resources to support teaching and learning in citizenship and the IGU organised a British conference on Citizenship in Geographical Education in 2003 (Kent and Powell 2004). Contacts with several European universities were also established with a view to collecting further relevant data during the project. Further advice on citizenship education has been provided by Walkington (1999), Flew (2000) and Grunsell (2002). The Development Education Association (1999) in their publication on human rights consider the possibilities of how to include citizenship issues in the primary curriculum.

It was anticipated that the end product of the project will be to develop guidance for schools on how to implement effectively aspects of citizenship into the geography curriculum. The strategy to achieve this aim will be by producing resources, organising events such as a Model United Nations General Assembly (MUNGA) for primary schools and providing in-service training. Linking with the CEWC will help to further develop ideas to support our work with students and teachers.

Education and citizenship in Kerala, India

The visit to India was a culmination of our research project on the role of global citizenship education in the primary curriculum. The aims of the visit were:

- To investigate the teaching of citizenship at the University of Kerala, State Teacher Training College and in primary and secondary schools,
- To investigate the national curriculum for citizenship in Kerala,
- To engage in dialogue with prominent educationalists whose interests are in developing global citizenship,
- To visit schools in the cities of Trivandrum and Kochi.
- To visit geographical sites in Kerala such as the Backwaters, Farming projects, Rural self help Projects, hill stations and plantations.
- To determine if an understanding of citizenship differs between rural and urban areas in Kerala.
- To investigate whether the people of Kerala see themselves as global citizens..

- To increase our knowledge and understanding of Citizenship issues in a developing world context.
- To provide opportunities for teaching global citizenship issues to current students on the BA, PGCE and in-service training programmes.
- To provide materials and contexts to inform future Geographical Association Conference sessions and Publications.
- To develop a range of contacts around the world for future networking including possible exchanges involving university and school staff and students from the Kingston area and Kerala.
- To increase teacher knowledge through in-service training sessions with local partnership schools.

There is both state and private provision school in Kerala which overall provides universal education up to the age of 14. Literacy levels are the highest in India at 98% and there are large numbers of students studying post 14 and at higher education levels. The government supports large numbers of children in the private sector. The State of Kerala has a long tradition of investment in Education and Primary Health Care and spends approx. 60% of their budget on these two priorities, considerably higher than any other state in India.

There is a strong culture of research in education in Kerala and combined with the long tradition of active political involvement, community and citizenship issues are popular topics for research. Kerala is also well known in India for the promotion of women in educational opportunities and there is a long history within families in the south for female education. This is clearly one of the main reasons for the high levels of literacy and educational achievement in the state.

Global awareness issues are covered in the social science and geography courses for trainee teachers. There is no specific course on citizenship, but aspects are taught via other subjects particularly through the geography curriculum. Political and community literacy are very prominent topics within the education programmes. In secondary schools for ages 12 to 18 there is a broad curriculum available with students specialising post 14. Global awareness is covered through social studies, geography and whole school events, this includes policies related to the design of the buildings, energy use, nature studies, rain harvesting and landscaping. The school has a very child centred approach in their teaching and learning programmes. Many schools in Kerala operate on good environmental principles with recycling, planting, conservation, rain harvesting and energy saving policies being part of the curriculum. The children and students are encouraged to develop their own interests and to participate in the communal life of their schools. Some schools have also established links with secondary schools in the UK that have fostered exchanges of staff and students.

Teaching and Learning and Citizenship Education in Kerala

The State of Kerala and the population have clearly put a high value on education. The people are literate, well educated and aspire to a high level of achievement. The curricula at all levels have an outward looking progressive approach to teaching

and learning. Kerala is an exporter of educated people as currently there are not the opportunities within the state of sufficient types of employment.

Citizenship teaching and learning is very evident in Kerala from an early age even when children first start school at five years of age. Throughout the primary stage the citizenship programme is similar to that of the UK. Young children learn about themselves, their health, diet, exercise, relationships, caring and sharing. Respect for the environment is also started at this stage. As children become older the concept of democracy is explored with examples in some schools of school councils voting for form captains and making joint decisions. In the secondary stage pupils explore global citizenship and the effects of globalisation. They also develop political literacy. Many see themselves as part of the global scene, contributors to a better understanding of the issues that affect global development. This is though very much dependent on the type of jobs and level of education they aspire to and the ability to find places in the best schools.

Our visit in 2004 was during the run up to the national elections and we saw evidence of many people exercising their democratic rights with a real interest in a fully participating democracy. There were street demonstrations and rallies on behalf of the different political parties and a lively debate in the local and national press. Many of the well educated young people of Kerala see their futures in developed countries especially North America, Western Europe and the Gulf States and in the more industrially developed parts of India. We feel there is enormous potential in developing links with educational institutions in Kerala to promote a better understanding between our countries and to share our understanding of the importance of global citizenship issues in education. Geography can clearly take a lead with promoting global citizenship in the primary curriculum.

The prospects for developing international links are good at the present time. The UK government through the British Council and the Department for International Development have a number of programmes that support schools and higher education to develop intercultural links. A further initiative, jointly promoted by the British Council and the Times Education Supplement in 2005 called “Make the Link”, is highlighting examples of good practice and provides a “how to” guide to help educational establishments. With the growing interest in globalisation issues and in particular the relationships between rich and poor countries, this is a god time to consider developing links and exchanging ideas.

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The role of geographical education in shaping regional identity of children

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Abstract

The article treats of the role played by school geography in shaping emotional relations and sense of identity with their place of residence in children. The paper exposes the function of education in developing such relations at primary school level. It shows how through the „Sciences” subject, implementing geographical contents concerning the economic and cultural environments of their own region, students can be made aware of their relations with the region.

Key words: regional identity, little homeland, cultural heritage, interdisciplinary pathway, regional education, primary school, landscape of immediate surroundings, teaching experiment, teacher education

Introduction

The turn of the 20th and 21st centuries has been marked by integration and globalisation processes. Changes are particularly apparent in Europe. In 2004 the European Union expanded by accepting ten new countries, more are waiting for access. State borders are becoming strictly formal in character, as people now move freely among most of the European countries. Representatives of different nationalities, cultures and religions, migrate for economic, scientific, or professional reasons to other parts of Europe, or even of the world. Cut off from their roots, they assimilate, to a greater or lesser degree, to new places and conditions, often losing their cultural distinctiveness. The processes of lifestyle, behaviour, and tastes are being unified, this can be seen even among people who have not left their home for a long time. The access to mass sources of information and standards propagated results in people eating, drinking, and dressing in similar ways, having similar needs and wants, irrespective of geographical location.

The world, in which unconstrained flows of information and people of different nationalities is now possible, with no political barriers it is considered friendly and convenient. There is, however one danger connected with the loss of cultural diversity. For it is genuine customs, rites, architecture, arts and crafts, clothing, and cuisine, characteristic for each region and country, that make the world a “colourful mosaic” which can be the source of inspiration or just a pleasant picture to look at. A very important task for the contemporary is to preserve that cultural diversity in the modern world. The proof that we need such diversity, are people travelling to the

farthest corners of the earth, seeking places where the original traditions and customs are still alive and respected. But it is not only foreign cultures that are interesting and inspiring to us. Very often we know little of our own heritage that is falling into oblivion, although we would like to preserve it. The Open Air Village Museum in Lublin is the frequent host of events with folk artists and craftsmen who represent old, vanishing professions, showing their tools and techniques. Old rites and customs are presented, that have almost disappeared. The events are immensely popular with the residents of Lublin and its environs, which confirms the need for learning about one's own "roots" and identifying with one's region's heritage.

Historical, political, and natural conditions have impact on the longevity of cultures. Some have continued to exist up to the present day, preserving their distinctive, genuine, and unique character; others have disappeared, and their heritage can normally only be seen in museums or heritage parks. So, in order to ensure cultural continuity, we must make sure that tradition and history are remembered, and on the other hand in order to guarantee the constant development of regions, younger generations should be raised in the spirit of respect for and attachment to their "little homelands". Building and developing one's own regional identity does not aim to form conservative or xenophobic attitudes towards all that is strange or unfamiliar. Being conscious of one's own "roots" favours waking the sense of responsibility for one's own region in the future, it also gives motivation for work in support of its development. Instilling in young people the sense of emotional ties to their "little homeland" increases chances that their adult lives will be connected with their region, and they would promote the assets of their land in the country and the world, seeking ways of solving problems and help its versatile development.

Shaping a regional identity through education in the Polish school system

Shaping of regional identity should start in childhood. At the early stage of life, the bond with one's own surroundings is natural. The "little homeland" is the space where the early phase of learning about reality occurs; first patterns, values, and ideas about the world are formed. (Hibszer 1997). The child's immediate surroundings are for him/her the reference point for everything that is more distant. Children's strong emotional bond with their environs can be seen in their idealistic attitude. In a survey conducted among primary school pupils of the fourth grade, questions were asked concerning their assessment of the landscape in the place where they live. Most of the children, irrespective of the true aesthetic value of their neighbourhood, judged the landscape as very nice, tidy and favourite. Such evaluation was given even by the children who were living in an unattractive industrial district. Therefore to shape regional identity is to support the natural bond of the child with his/her environs by way of instructing and educating. Besides the family, it is the school that has to accomplish the task. Regional contents are present in the Polish schools' curricula at all the levels of teaching.

The education reform conducted in Poland in 1999, has introduced a new form of classes to the education system, so called cross-curricular, or interdisciplinary pathways. Apart from their didactic function, they play an important educational

role: they form attitudes, views, principles, and develop competences necessary for being able to function in the contemporary world and in the adult life. One of these interdisciplinary pathways is Regional education – the cultural heritage of the region. This is undertaken from the fourth grade of primary school (2nd stage of education) through to secondary school (4th stage of education). It includes teaching about regional contents at all levels of teaching and indicates how important their realisation is for Polish education system. The chief goals of the regional pathway are:

- providing pupils with the knowledge from the fields of: nature, economy, and culture (in the historical as well as present-day contexts);
- helping pupils in creating their own system of values;
- preparing them for performing social roles and for mature life in the regional, national, and European structures;
- developing of the sense of being a part of regional, national, and European communities;
- shaping of a patriotic attitude towards their region and country;
- stimulating interest in culture and tradition in the scale of the region, the country, Europe, and the world;
- developing respect and tolerance for otherness in the aspect of religion, language, culture, and tradition of other ethnic groups (Piwońska, 2001).

The subject matter of the regional pathway combines the contents that are part of a number of different subjects: history, the Polish language, civil education, geography, biology, as well as music and arts. Because of the interdisciplinary character of the regional pathway, it is implemented by different teachers, either as a constituent of their mother subject, or in the form of other activities, such as excursions, contests and projects which are aimed at integrating contents from many areas.

The role of school geography in shaping a regional identity

Geography is significantly involved in implementing regional education. The grounds for this are, among others, provided in the guidelines of The International Charter of Geographical Education (1992), according to which, "Regional Studies select from the following areas: local community, home region, home country[...]", as well as the decades of tradition of the Polish school of geography. Polish geographers and educationalists over a hundred years ago postulated that the elementary knowledge of the subject be based on observing one's own environs. In 1921, Sawicki in his book "Metodyka geografii..." („The Methodology of Geography..."), wrote: „Let us begin to teach geography from the very bases, from the things most immediate to children, that is from what they know."

In Poland, the first stage of geographical education takes place at primary school. At that stage geography does not appear as a separate subject, but constitutes part of science that combines the contents of geography, biology, chemistry, and physics to present a complete and coherent picture of the environment, as well as the relationship between the environment and human life and activity. A significant part of geographical contents in "science" refers to the immediate surroundings of the

pupil. This is implied by the entries in Basic curricular requirements (Ministry of Education and Sport 2002), for example:

- Description of your place of residence (land forms, rocks, types of water, soil, vegetation).
- The living conditions in your immediate surroundings.
- Orientation in the surroundings, sketch, plan, map.
- The landscape of the immediate surroundings – observations and descriptions:
 - elements of the natural landscape
 - the ways of land development
 - people and culture
 - dependence of people’s lives on the natural and extra-natural factors.
- Human influence on the natural environment.

The Basic curricular requirements also specifies competences and attitudes that pupils should work out while learning “science”. Many of them are related to the local environment, for instance:

- Noticing the natural values of the most immediate region, knowing about the legally protected objects and nature areas. Recognising, using atlases and keys, common species of plants and animals.
- Noticing the relationship between the elements of the natural and cultural environments.
- Noticing the influence of human activity on the natural environment.
- Solving simple „problem” tasks concerning the place of living and its environs.
- Noticing the culture values of the most immediate region.

The entry in the Basic curricular requirements clearly indicates that while implementing material connected with the landscape of the immediate surroundings, regional education can be realised effectively. The “landscape” notion is quite a broad one, it encompasses both natural and human-made elements, joined by a network of interdependences and interactions. Natural conditions determine to a considerable degree the way man manages the land; and man transforms all the natural components of the landscape, leaving his mark on its quality and appearance, giving it in effect the look typical of a given region.

The “Science” curriculum unit that is related to the landscape of pupils’ place of residence is realised in the fourth grade of primary school. A maximum number of classes devoted to pupils’ environs should be conducted in the field. Direct observation gives geographical concepts a concrete, real dimension. Pupils can actively follow the processes and phenomena occurring in the environment, in order to understand better their causes and effects, both for nature and for human activity. Through exposure to the environment, pupils can make observations on how our ancestors managed the land we inhabit now, what they have left us, and what mark is being left on it by the contemporary people. During such observation, a child has an opportunity to see how the past intermingles with the present, and how the cultural and economic activities of man overlay the picture of natural conditions (Angiel 2001).

Field lessons can engage the pupil's activity to the greatest extent, because it is not only his/her mind, but also his/her body that is at work. Different senses are stimulated: the incentives sent by the environment are perceived by a child with sight, hearing, smell, and touch. A contact with the environment, its looks and its quality, are also the source of positive or negative emotions, leading in consequence to certain reflections, conclusions, and opinions, concerning the proper management of nature. During observation and research conducted in their immediate landscape surroundings, pupils begin to understand the phenomena occurring in it. Emotions accompanying the process of learning about their neighbourhood, they ground and strengthen the child's natural bond with his/her environment. Regional identity is shaped as if "by the way".

It is not always easy to organise field activities in school conditions, especially that most of the school year in Poland is in winter, when neither the length of daylight nor weather conditions encourage staying out of doors. There are also organisational difficulties, for example the timetable is inadequate to the needs of the teacher who wants to conduct field lessons. In effect, the practicality of realising classes out of doors is very limited. In situations when it is difficult to organise observation for pupils in the environment, different teaching aids need to be used. It is important, however, that the contents contained in those materials be also related to the immediate surroundings. Commonly available school textbooks are, of course, not oriented towards a specific region, because of their universal character. It is the teacher's job to prepare suitable teaching aids. In several schools of Lublin an experiment was conducted: during the landscape-related lessons, the teachers used a text, slides, and an educational film, prepared especially for the purpose and concerning the surroundings of the pupils' residence. The results of the experiment went far beyond the expectations. The pupils were very positively surprised by the fact that their vicinity became an object of a scientific project. Using the materials prepared, they would recognise familiar places and objects, learning new things about them. All the teachers participating in the experiment stated that the children worked with much more zeal and emotional engagement than usual. It is thus clear that the contents related to the pupil's immediate surroundings are interesting for him/her, irrespective of the form of classes during which they are introduced.

Cultural heritage, a subject of interest of regional education, is sometimes understood in a narrow sense. It is mainly associated with monuments of architecture and museums. Whereas cultural heritage should also incorporate natural heritage, together with economic heritage. Regional education is thus also connected with ecology, whose one goal is to prepare young people for the implementation of the idea of balanced development. All these contents will be taught during the classes that concern the landscape of immediate surroundings, and thus landscape education overlaps to a big extent with regional education, both in respect to the teaching material and the goals to be realised.

The preliminary stage of landscape education, takes place during the fourth grade of primary school, and as it refers to the landscape in the pupil's place of residence, is of a great cognitive and educational significance. It should be implemented with

special care dedicated to the selection of contents taught, teaching aids, and methods employed. Within the curriculum unit concerning landscape, pupils not only obtain knowledge about nature, it is also a very important element of regional education. Through the methods of work typical for geography, and seldom used during classes on other subjects: direct field observation and research, pupils get in close contact with their environment. In this way, attachment, sense of responsibility, and respect for the place in which the child grows are developed. It is all that which constitutes regional identity.

In the new education reform, that is concerned primarily with changes in the Polish school curricula, there are plans to remove the interdisciplinary pathways. Many opinions about them indicate that they cause organisational problems for schools, and their implementation varies among individual schools. If the changes are introduced, the regional pathway will no longer constitute a separate form of teaching, and its contents will only be present in the curricula of other subjects. There is concern as to whether regional education will have proper continuation and will not become neglected.

In the case of the “science” curriculum, as the framework for implementing the “landscape of immediate surroundings” study unit, regional contents are well covered and so the problem does not exist. Landscape education does, and probably will continue to contribute to developing in children the sense of affinity with their region, developing interest in its nature, economy and culture, forming their patriotic attitude, and preparing pupils for their future roles in the society. However, in order to really be so, the teachers must fully realise the role of and the need for regional education in a young person’s development.

Preparing teachers to give classes in regional education

It is also essential to adequately prepare teachers to provide regional education. There are various possibilities for getting qualified in this field. In the department of Biology and Earth Sciences of the Maria Curie-Skłodowska University in Lublin, postgraduate studies in regional education are offered to teachers of different specialities. Unfortunately, the number of teachers who take up such studies is limited due to the cost involved. Meanwhile, teachers of science – a subject which comprises a theme block entitled “landscape of the immediate surroundings”, have different educational background. They can be biologists, geographers, chemists or physicists who have finished a postgraduate course or other. Students of geography are the only group who have classes on their region as part of the curriculum of their studies. They include both lectures on the subject and methodology classes, where students prepare papers on their “little homeland” putting into practice the methods they are going to use at school later on. Students of other subjects: biology, chemistry, physics do not have such classes during their studies. In postgraduate studies and courses qualifying to teach science study, issues of regional education do not receive much attention. There is no time for this, as classes are run on an extra-mural basis only for three terms and deal with a lot of other subject matter. In conclusion, it seems evident that geography teachers are best prepared, both in terms of theory and methodology,

to explore regional issues when teaching science. Other teachers have to supplement their knowledge on their own account.

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Getting geography students involved in European integration

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Abstract

Most geography departments in Europe offer courses on the ‘geography of Europe’ or ‘European integration’. Very few of these courses, however, employ strategies that make students aware of and involved in the political processes at the European level that influence the development of European space, e.g. through agricultural policy, regional policy, or market-oriented policies. This paper will describe and analyse the attempts made in Utrecht to involve geography students in European decision making through the use of gaming techniques.

Key words: Geography, university, education, European integration, simulation, gaming

Introduction

The British geographer Ron Johnston reminded us years ago of the fact that geographical education, in schools and universities, is not just about ‘technical control’ (grasping the subject-matter and skills that are indispensable for the labour market), but also about ‘mutual understanding’ and ‘emancipation’ (Johnston 1985). Good education is about knowledge and instrumental skills, but also about social and personal development, as an individual and as a citizen. This wisdom should be kept in mind in the design of any course or learning experience, of course, but here we try to apply Johnston’s concept of educational goals to teaching and learning, in a geography context, about Europe and the European integration process.

The resources for learning about Europe, from a geographical perspective, are abundant: textbooks and articles in academic journals offer a variety of relevant themes, empirical research outcomes, case studies at various geographical scales, and theoretical perspectives. There is no lack of input for the development of students’ knowledge and understanding and for critical intellectual reflection on the development of European space or on the ongoing European integration process. The problem is, however, how to link this body of knowledge to the questions and concerns of students as national and European citizens, as politically aware individuals.

“European integration” is a third-year module in the bachelors programme “Human Geography and Planning” at Utrecht University. In this module, we have been trying over the last five years to establish the links between learning about European integration, enhancing mutual understanding of each other’s perceptions of Europe between students from many European countries, and the development of the students as critical European citizens. Simulation of the European policy making process has been a key strategy in our approach.

Some background

For a number of years throughout the late 1980's and early 1990's, our department organised and hosted so-called "Intensive Programmes" about the geography of European integration, co-funded through the EU Erasmus Programme. The focus was generally on issues of regional development and regional policy. Among the partners were students and staff from Spain, Finland, Norway, France and the United Kingdom. Three things became very clear in this experience. In the first place, students found it extremely stimulating to learn about and from each other's national and personal perspectives on Europe. Students delivered papers about regional development and policy issues in their home regions and were active in joint debates about the desirable future directions of European regional policy. Conflicting (national) perceptions and interests, as well as (im)possibilities for compromise, became very evident in these debates. Secondly, students were very positive about the inclusion in the course of European (regional) policy as a contested arena, and showed special interest in future-oriented debates about it. Thirdly, the active learning strategies adopted, with debate, student-led seminars and presentations, and study visits to experts in Brussels for further presentations and discussions, made the intensive programmes work.

The very successful intensive programmes came to an end for a number of reasons: the disappearance of the traditional disciplinary Erasmus networks as a result of policy shifts in Brussels; and probably also fatigue with the annual paperwork for IP applications and evaluation reports to the European Commission. The idea of a module about European integration, with an active and collaborative learning approach, an international student group and with a focus on European policy issues, was taken further, however, by a group of Utrecht staff members, lead by political geographer Jan Groenendijk. This resulted in the "European integration" course that has now been operational for over five years.

Design

Any university course in Utrecht takes place over ten weeks, with a study load of 7,5 ECTS credits, or 200 hours, or 20 hours of work per week (half time; there is always a parallel course), with an average of 6 to 8 contact hours per week for lectures, seminars, presentations, fieldwork, *etcetera*. The average "European integration" course will have approximately 60 students, one third to one fourth of them exchange students (mostly from European countries), and a teaching team of four members of staff. The course starts in a rather conventional way, with a series of lectures about aspects of the European integration process that may be relevant for the students' project later during the course (see further down). Parallel to these lectures, the students have some small simulation exercises that make them sensitive to the importance of national interests and positions in European negotiations and decision making processes. Thus they start orienting themselves to their projects, that will really take off after the exam (fifth or sixth week, related to the lectures and reading materials).

The project has a number of phases. During the first phase, multinational student groups of four produce country reports – supported by sub-national regional analyses

by the students individually – that result in a SWOT analysis of the country and policy recommendations for the country with respect to one particular European policy issue. In the 2005 course, the Lisbon agenda was the policy issue under consideration. As part of the preparation of the report, students have a two-day study visit to Brussels, during which they interview regional and national representatives, or relevant sectoral organisations. Loads of relevant documents, course instructions, group workspaces and address lists for organisations in Brussels are all on the course website. During this process, students develop an understanding of where the particular country and its regions stand in relation to (in this example) the multi-faceted Lisbon agenda for improving European competitiveness. They learn about the country's strengths and weaknesses with regard to the Lisbon agenda and about the opportunities and threats it poses to the country if it were implemented in unaltered form. They also become aware of the links between the country's geographical characteristics (relative location, regional inequalities, regional development processes) and the issue under consideration (the Lisbon strategy).

The final two weeks are the most hectic period of the course. Groups of countries (for example: new Central-European member states or Southern member states) start briefing each other about their findings and about what the Lisbon strategy might mean for their countries. They also look for common ground in the debates that will follow about the Lisbon strategy. Then all 60 or 70 students are assigned new roles as members of European political parties, but at the same time they keep the 'geographical origin' of the country they studied earlier. Some students are excluded from this and are allocated the roles of either a European Commissioner (for regional policy, competition policy, regional policy, finances) or President/Secretary for the final European Parliament debate. Everyone receives a 'faked' policy compromise document (produced by the teachers) from the Commission – that links together proposals for the Lisbon strategy, for the future of agricultural policy and regional policy, and the financial framework for all this – that will be the object for the final Parliamentary debate. From then onwards, the political parties have meetings for deciding about their position in the debate (based on the real party programmes), country representatives from various parties may meet in order to negotiate territorial interests across the borders of political parties, the Commission meets in order to prepare its presentation and defence of the proposal plus the room for compromise. This all feeds into the final debate, that may take a full day and that is the last element of the course.

Experiences

Evaluations of this 'European Integration' course by subsequent groups of students and by the teachers who are involved in the course lead to a number of observations about the 'educational experience' that the module offers. Technical evaluation results, about the study load, clarity of tasks, or fairness of grading, are left out from these observations. We want to focus on the 'citizenship education' and 'political education' aspects of the course.

- The close-to-reality simulation of the political process, with roles for political parties, the European Commission, regional coalitions, national interests, about

issues that will shape the future geography of Europe and the lives of European citizens, clearly enhances students' interest in European politics, and makes them see the relevance of geographical analysis and understanding for debates about the future of Europe.

- The multinational student group adds an extra dimension to the course. It results in more lively discussions (about conflicting interests between states and regions), brings more varied grassroots knowledge and experience into the debates, and generally leads to a more realistic setting for simulated international negotiations.
- Future orientation appears to be an excellent strategy for bringing together students knowledge and their personal interests and expectations. Future orientation was not a conscious choice in the design of the course. But the focus on topical policy issues implies a future orientation. During the course, it became evident that students are more engaged and more eager to participate in discussions when these are about choices for the future, their future. Future orientation deserves more attention as a teaching and learning strategy in higher education geography.
- The course approach has an important disadvantage as well: during the final discussion and simulation phase, a clear division may become visible between those students who can cope with the course strategy and those who cannot. A substantial group of students does not have the political literacy or sensitivity, nor the theoretical helicopter view necessary for looking beyond the issues (or example Europe as a neoliberal project versus Europe as a potential arena for counterbalancing corporate Europeanisation and globalisation), that are needed for good arguments and realistic positions in the debates. Maybe the students concerned can not be blamed for this; the divide may reflect a lack of political education during the previous years of the geography curriculum. Partially, this group of students with shallow participation will be lifted up by the enthusiasm of others and improve their performance. But a lack of relevant education can not be repaired within a few weeks.

Conclusion

Geography courses about contemporary issues in society may be designed in such a way, that they contribute to the triple goals of education: 'technical control', 'mutual understanding' and 'emancipation'. The European Integration course described here is a modest example of this ambition. Although not consciously used as a strategy in this course, future orientation seems to be an interesting approach for mobilizing and enhancing 'the full student': her/his knowledge and understanding, motivations and ambitions, values and personal expectations. This approach deserves wider attention in geographical education.

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The Role of International Staff and Student Collaboration in the Enhancement of the Geographic Curriculum

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Abstract

Internationalisation of the Geography curriculum at the University of Wolverhampton has been a key feature of the programme over the last 15 years. The activities in the undergraduate and postgraduate programmes have included work placement opportunities, fieldwork through the EU funded Tempus and Neptune programmes and in the USA, Russia, Spain and Eastern Europe, a variety of staff and student exchange programmes, and joint curriculum development projects. There have been a number of advantages to this type of international collaboration. These include comparative studies of assessment methods and joint curriculum development; pooling of academic expertise and economies of scale; facilitating organisation for foreign partners; enrichment of the staff and student experience through contrasting cultural experiences and the broadening of European/global awareness.

Key words: internationalisation, work experience, fieldwork, international collaboration, broadening awareness

Introduction

Many universities throughout the world are investigating ways to enhance and integrate an international dimension into their curricula (Haigh, 2002), and the signing of the Bologna Declaration has promoted this commitment within the member states of the European Union (EU). However, internationalisation can encompass several meanings such as the dissemination of best practice, the collaborative development of curriculum materials, the facilitation of inter-cultural awareness, or the promotion of international standards in learning and teaching (Shepherd *et al.*, 2000).

The University of Wolverhampton has been no exception in recognising the importance of internationalisation of the curriculum and it has been a fundamental consideration in facilitating widening participation for a diverse student population at the University for many years. The University strives to achieve, as Haigh (2002) stated, an “ideal international curriculum *that* provides equably for the learning ambitions of all students, irrespective of their national, ethnic, cultural, social class or gender identities.”

Geography and Environmental Science, over the last 15 years, has been one of the most forward thinking subject groups at Wolverhampton to develop an international dimension through institutional collaboration and the development of a network of international partners in curriculum development. The development has been manifested in a number of ways, e.g. staff and student mobility through the ERASMUS/SOCRATES and NEPTUNE programmes, curriculum development projects funded through the EU TEMPUS and SOCRATES programmes, international fieldwork and the integration of global and European case studies into the undergraduate and postgraduate programmes.

It has been argued that the application of information and communication technologies (ICTs) has enhanced successful collaboration between international partners (Rich *et al.*, 2000) and this has certainly been the case at Wolverhampton. The increased use and application of ICT has facilitated interaction between staff and students and also the collaborative development of teaching resources. As noted by Rich *et al.* (2000) ICT has been beneficial in providing a low cost resource to enable regular contact, and access to Virtual Learning Environment (VLE) resources, for students studying abroad or for collaborative working between students, and staff, over long distances. The ability for staff and students to share information and perspectives on concepts or topical issues enriches the curriculum opportunities at all of the partner institutions.

International Curriculum Development

International curriculum development has been undertaken at two levels: the development of an international module in European environmental issues (Smith *et al.*, 2001) and the modernisation and internationalisation of the geography and environmental curriculum at Tyumen State University (TSU) in the Russian Federation.

The European module was a collaborative development with institutions from Finland, Czech Republic, Hungary and Ireland and was funded through the EU SOCRATES curriculum development programme over three years. The module was designed to explore wider perspectives and attitudes towards the environment on a pan-European scale. It also aimed to promote an interdisciplinary approach to learning. The project resulted in a flexible, student-orientated module that benefits staff and students alike (Smith, 2001). The facility to incorporate new case studies, and partners, will ensure that the module is dynamic and focuses on contemporary issues.

The curriculum development project at Tyumen was funded for three years through the EU TEMPUS programme and involved the University of Freiburg, Germany and Mikkeli Polytechnic, Finland, alongside the Universities of Tyumen and Wolverhampton. The Russian geography and environmental curriculum is controlled through the Scientific Methodological Council on Environmental Education, part of the Educational Methodological Association of Russian Universities (Kasimov *et al.*, 2002). As a result the opportunity to radically restructure the geography curriculum was not possible, except within certain specialist areas such as environmental protection and resource management. However, the project was extremely successful and

facilitated the introduction of international case studies, problem-based and applied learning into the curriculum, as well as providing the opportunity for an international work experience project for students from five countries on the Russian Black Sea coast. The project was also able to establish an Environmental Training Unit in the Faculty of Ecology and Geography at TSU which provides short courses for teachers, regional government staff and employees in the oil and gas industries. In addition the centre has been accredited for the training of environmental auditors.

International fieldwork

As mentioned previously, two international student teams undertook a work experience field project on the Black Sea Coast, for one month in consecutive years, to produce a fieldwork training manual for the staff at TSU. Students, and staff, were able to share field experiences and methodologies and worked alongside staff to identify the essential information to be included in the manual. Although the editing of the manual is currently being undertaken by a member of Wolverhampton staff, the content of the training manual is essentially that of the international student cohort.

There are two field courses to the USA from Wolverhampton, one each at undergraduate and postgraduate level, within which ICT plays an integral part. The undergraduate fieldtrip is organised by Professor Rydant from Keene State College, with staff and facilities also provided by Plymouth State University in New Hampshire. The UK students have the opportunity to broaden their awareness of global issues in geography and environmental management, implementing ICT to produce management plans during the trip. The postgraduate trip is a joint trip to Arizona with UK postgraduates and US students from Keene and Plymouth. Prior to the trip the students work together in international pairs, via the Internet, to prepare materials and information packs on various sites they visit. The student pairs were required to present a seminar paper, with handout, during the trip on a selected topic/site as a prequel for the following field day.

International exchange programmes

Since the introduction of student mobility through the EU ERASMUS programme in 1987 Wolverhampton has been active in promoting opportunities for students to include a period of study abroad as part of their studies. Walters (2003) suggests that European exchange programmes are a relatively easy and effective way to enhance the student experience in geography and this is perceived to be the case at Wolverhampton. In geography and environmental science these opportunities have broadened to include links with Keene State College and the University of Arizona and with other EU institutions, through the Neptune programme co-ordinated by the University of Leeuwarden in the Netherlands.

Issues and Benefits

There are a number of issues that arise from international curriculum development and these have been addressed by a number of authors. For example Reeve *et al.*

(2000) cautioned an awareness of cultural differences and that there can be “no assumption of shared preconceptions”. The authors were also aware of the necessity to provide for the inclusion of local content into a syllabus/teaching and learning materials. Rich *et al.* (2000) were concerned about the possible loss of autonomy with shared courses/materials and that there may be a requirement for formal quality assurance processes and ‘acceptable standards’ to be introduced. Nairn *et al.* (2000) also identified issues with regard to fieldwork such as integration of the syllabus, sharing of courses (including staff and resources), financial constraints on international fieldwork and safety.

Although there must be an awareness of these issues outlined above, it is clear that international collaboration brings significant and important benefits in enhancing the geography curriculum. The benefits include the comparison of assessment methods, the pooling of academic expertise and resources, the economies of scale in fieldwork and facilitating organisation for foreign partners. The enrichment of the staff and student experience through contrasting cultural experiences and the broadening of European/global awareness cannot be underestimated. Graduate skills, such as problem solving, team working, and enhanced communication skills, are developed through international fieldwork and student mobility opportunities. Partner Further Education (FE) institutions have also benefited from these developments as the FE students have been able to join fieldtrips and staff have had access to resources. The learning and teaching experience for staff and students is greatly enhanced for all the partner institutions involved and the internationalisation of the geography curriculum ultimately provides an accessible and stimulating learning environment for a diverse range of students.

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Geography and Languages in Intercultural Education: does the spatial diffusion of English hinder or help intercultural geographical understanding?

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Abstract

English is rapidly strengthening its position as the world's dominant international language. Its geographical spread becomes ever wider and it penetrates deeply in a wide range of linguistic domains. It is pre-eminent in international research and is increasingly used as a language of instruction in universities and other education institutions outside of English-speaking countries. English overwhelms other tongues in the global 'language-market' with, for example, well over 90% of secondary school students in Europe choosing it as their main foreign language. Meanwhile, the learning of languages in the Anglophone countries is in steep decline. There are more publications in English than any other language and about 50% of translated works are out of English into other languages. The reverse flow into English is minute in comparison. This spatial diffusion of English can be seen as a positive development which facilitates inter-cultural understanding across language barriers. However, others fear that it poses a threat to cultural and intellectual diversity by facilitating a dominance of ways of thought (*la pensée unique*) and 'world-views' flowing out of the Anglo-American world. This debate is beginning to open up within academic geography [Gutiérrez & López 2001; Rodríguez-Pose 2004]. Thus Garcia-Ramon argues that the 'growing hegemony of English as a global language privileges the geographical discourse of the 'Anglophone world' at the expense of other scholarly traditions, with a consequent loss of cultural diversity [Garcia-Ramon 2003: 1]. Others fear that monolingual English-speakers are culturally isolated by their lack of language skills [Watson 2004]. This paper will present the main dimensions of this developing debate and its implications for the teaching of geography along with languages as means of intercultural education.

Key words: English language dominance, Geographical education, intercultural understanding, university and secondary education

Introduction

English is rapidly strengthening its position as the world's dominant international language. This geolinguistic phenomenon is seen by some as a positive development which facilitates intercultural understanding across language barriers and by others as a negative process which threatens to cultural diversity. This short introductory paper invites geographers to participate in these debates think about their implications for intercultural education.

The dominance of English as an international language

English is the dominant *lingua franca* in virtually all international activities concerned with business, politics, science, academia, travel, popular culture or sport. It is the working language of many multinational companies based in non-Anglophone countries, including states like Germany (*Deutschebank*) and France (*European Aerospace and Defence Systems* based in Toulouse, where it assembles the European Airbuses). Most research publications in scientific journals are now published in English, whatever the mother-tongue of the author or the country in which the journal is based and an increasing number of academics from the social sciences and humanities do likewise. Thus, a 1997 study revealed that 98 per cent of German physicists claimed English as their working language while the comparable figures for sociology, philosophy and literature were 72 per cent, 56 per cent and 23 per cent respectively (Graddol, 1997:9). There are more publications in English than any other language and they are extensively outside of English-speaking countries (Graddol, 1997). English overwhelmingly dominates as the language of international conferences, often being the only language that can be used. Associated with all this dominance, there is often an implicit cultural assumption that any truly 'modern' person must have a working knowledge of English.

The reasons for the geographical spread and dominance of English

Political power and its associated economic strength does much to explain this linguistic dominance. First, the vast British Empire laid the foundations for its geolinguistic pre-eminence and today the political, economic, military and cultural strength of the USA builds upon them (Holborow, 1999). The ability of the USA to promote its culture globally has no match in the contemporary world. Vast numbers of the publications emanate from its universities and publishing houses and its popular culture is ubiquitous, diffused by a multitude of audio-visual products to consumers worldwide from enormously powerful 'cultural industries'. Other Anglophone countries share these language-based advantages to a greater or lesser extent.

In addition, a cumulative process compounds these advantages. In a 'global language market' English is perceived by 'linguistic consumers' as the most valuable 'linguistic commodity' to acquire because it offers more scope for international communication than any other language (Calvet, 2002). English has thus obtained a truly global role and those who speak it as a second language now greatly outnumber native speakers of the language (Crystal, 2003). Let us briefly identify some dimensions of its dominance in the educational and cultural domains.

The dominance of English in second language learning in Europe's schools

In 1998/99 about 93% of secondary school pupils in the EU-15 studied English as a foreign language compared with 28% and 20% respectively for French and German, its nearest competitors (Eurostat 2001). The enlargement of the EU to 25 Member States has not undermined this pre-eminent position (see Table 1).

Table 1. The most widely taught foreign languages in secondary education 2001/2002

Country	English	French	German	Spanish	Other
Austria	98.6	12.8	–	2.0	5.6 (Italian)
Belgium (Fr)	68.2	–	5.3	3.2	72.9 (Dutch)
Belgium (NI)	70.6	98.0	24.0	0.9	–
Bulgaria	64.4	14.6	21.2	24.5	–
Cyprus	99.8	78.2	1.1	–	0.8 (Italian)
Czech Rep.	67.4	4.2	42.7	0.9	
Denmark	98.1	10.2	51.9	6.7	
Estonia	89.8	–	33.9	–	55.6 (Russian)
Finland	99.0	13.3	28.3	–	92.2 (Swedish)
France	96.0	–	20.4	39.9	4.6 (Italian)
Germany	93.9	22.7	–	2.4	2.2 (Russian)
Greece	97.6	44.1	17.0	–	–
Hungary	51.4	4.6	43.3	–	4.2 (unspecified)
Iceland	82.4	8.2	21.6	–	65.6 (Danish)
Ireland	–	69.3	22.0	5.4	0.9 (Italian)
Italy	84.3	31.3	5.7	1.7	–
Latvia	92.6	1.4	27.5	–	40.8 (Russian)
Lithuania	78.6	6.2	31.2	–	53.6 (Russian)
Luxembourg	62.5	99.1	99.1	6.6	–
Malta	96.8	40.3	6.5	–	56.8 (Italian)
Netherlands	98.0 (1999)	n.a	n.a	n.a	n.a
Norway	100.0	18.2	38.9	–	0.1 (unspecified)
Poland	77.8	6.9	48.5	–	13.2 (Russian)
Portugal	89.9	54.4	0.5	1.6	–
Romania	86.4	87.0	11.4	–	6.5 (Russian)
Slovakia	61.8	–	48.4	–	5.2 (Russian)
Slovenia	85.0	2.8	36.5	–	2.9 (Italian)
Spain	97.1	36.7	1.7	–	0.1 (Italian)
Sweden	100.0	21.5	35.6	19.8	–
UK	–	51.4	20.6	8.0	2.1 (unspecified)

Source: (European Commission 2005)

The learning of English is also spreading rapidly into the primary schools of continental Europe (European Commission, 2005). The proportion of primary pupils learning English in the EU-25 rose from 38.5% in 1999 to 46% in 2002 (100% in Norway, 96.7% in Austria, 85.2% in Spain, 75.1% in Italy and 35.8% in France). Its nearest competitor in this domain, French, was being studied by a mere 5% in 1999.

In sharp contrast, the learning of foreign languages is in steep decline in both the schools and universities of the United Kingdom (Table 2). Linked to this lack of language skills, there has been a sharp decline in the numbers of British students participating in the EU's ERASMUS exchange scheme, from 12,000 in 1994/5 to 7,539 in 2002/3 (House of Lords 2005).

Table 2. Evolution of admissions to French, German and Spanish single-honours modern foreign-language degree programmes in the UK (home students) 1996–2000

Year	French	German	Spanish	Total
1996	980	322	239	1,541
2000	738	275	259	1,272

Source: UCAS 2002

The dominance of English in international publishing

There are more publications in English than any other language (about 17 per cent of global output) and they are read widely outside of the English-speaking countries (Graddol, 1997; Crystal, 2003; Philipson, 2003). In addition over half of the books translated today are out of English into other languages. So those writing in English enjoy a geographical diffusion around the globe far exceeding that of those writing in other languages both in the original *and* the translated form (Melitz, 1999). A brief examination of literary translations in and out of French in 2003 give some insights into the dominance of English in this intercultural domain (see Table 3).

Table 3. Translation flows into and out of French in 2003

Translations into French from		Translations out of French into	
English	825	Spanish	606
German	89	Korean	581
Italian	72	Italian	572
Spanish	69	Portuguese	584
Japanese	68	Chinese	485
Dutch	20	English	383
Russian	17	German	327
Hebrew	17	Greek	220
Swedish	16	Romanian	212
Portuguese	13	Japanese	198
Norwegian	9	Russian	191
Polish	9	Polish	181
Others	53	Others	1383
Total	1277	Total	5923

Source: SNE/La Centrale de l'Édition 2003

Does the dominance of English threaten intercultural understanding?

This short paper can only encourage geographers to examine this immensely complex question by making some broad introductory observations. First, fears that an 'English-language hegemony' threatens intercultural understanding emerge in various contexts. For example, public discourse in France is marked by the concept of 'la pensée unique' which conjures up a vision of a globalising world where many people assume that, in the words of former British Prime Minister Thatcher, 'there is no alternative' to 'Anglo-Saxon' free-market capitalism based on liberal democracy;

the whole world will, according to this way-of-thinking, inevitably move in this direction towards what the eminent –and globally published- American academic Francis Fukuyama described as the ‘the end of history’ (Fukuyama, 1993). This diffusion of this ‘dominant ideology’ is, some argue, facilitated by the global spread of English; other ideological perspectives evolving in other linguistic-cultural communities cannot counterbalance this English-speaking cultural juggernaut (Cassen, 2000). Germany provides another example of anxieties related to language and intercultural understanding. Its politicians and diplomats are alarmed by the falling numbers of English-speakers learning German and the paltry flow of translations out of German into English. This, it is suggested, produces no cultural counterbalance to the persistence of distorted and ‘negative’ images of modern Germany based on an almost obsessional study of ‘Nazi’ Germany in British schools (Economist, 2004) and the incessant showing of World War Two films UK television (Goethe Institut). In the English-speaking world, some worry that it’s characteristic monolingualism is isolating it dangerously from an understanding of developments in other cultural-linguistic communities. The minute numbers of Americans studying Arabic become

Table 4. Country of origin of authors of articles published in major ‘international’ journals, 1991–97

Country	Percentage of articles published 1991–97
USA	38.25
UK	35.14
Canada	8.58
Australia	3.24
Israel	1.51
New Zealand	1.42
South Africa	1.19
The Netherlands	1.09
China	0.62
Singapore	0.61
Sweden	0.52
France	0.52
Italy	0.51
Japan	0.49
Germany	0.47
Greece	0.47
Others	5.36
Total	100.00

Source: Gutiérrez and López, 2001

starkly apparent when demands for knowledge of the developments in the Islamic world increased following the ‘September 11th’ attack on New York.

Language and intercultural understanding in academic Geography

In 2001, two Spanish geographers challenged the ‘international’ pretensions of some 19 major geographical journals based, significantly, in the USA and the UK (Gutiérrez and López, 2001). They revealed that these so-called ‘international’ journals are heavily dominated by the English-speaking countries and academics (see Table 4).

Of course, geographers from countries like Spain can publish in their own national languages in essentially national journals. But few from outside these linguistic communities are likely to read them. This produces cultural isolation rather than intercultural understanding, a point made by another Spanish-Catalan geographer who argued that the ‘growing hegemony of English as a global language privileges the geographical discourse of the Anglophone world’ at the expense of other cultural traditions (García-Ramón, 2003: 1–4). She argued that articles submitted by native English speakers are more likely to be accepted because of their ‘mother-tongue’ advantage and because their ‘ways of thought’ are more likely to accord with those Anglophones dominating the edito-

rial boards and refereeing systems. In order to counter such trends, she proposed three strategies. First, 'we should ban monolingualism in geography'. Second, an effort should be made 'to translate more books and articles into English. Thirdly, she advocates the development of 'truly international journals where "Other" voices could be heard... by opening up academic journals to languages other than English and... by... enlarging the pool from where referees are chosen on the basis of nationality and languages'. In such ways the cultural-linguistic ghettos could be broken and more genuine intercultural exchange take place.

However, her views were challenged by another native Spanish-speaking geographer (Rodríguez-Pose, 2004). He maintains that the adoption of a common international language is the most effective way of exchanging ideas and promoting intercultural understanding. In the modern world, people simply have to master English or run the risk of remaining isolated within restricted national communities doomed to cultural decline. Indeed, he suggests that 'switching to English is perhaps the only viable way of preserving the rich national academic traditions that Garcia-Ramon mentions...' (Rodríguez-Pose, 2004: 2). He cites the examples of the *Tijdschrift voor Economische en Sociale Geografie* and the *Geografiska Annaler* as examples of where the decision to use of English projects the work of Dutch and Swedish geographers to the rest of the world, while publications in French and Spanish in the *Bulletin de l'Association des Géographes Français* and the *Boletín de la Asociación de Geógrafos Españoles* remain geographically isolated from intercultural exchange. As a French speaker, the author of this paper has just received an invitation to the excellent annual *Festival Internationale de Géographie* held in St Dié, France. The theme of the conference is 'Le monde en réseaux' ('Global networks'). The language of the conference is French; a count of participants presenting papers reveals some 132 French academics, 2 Spanish, 1 American, 1 Dane and 16 Italians (Italy is the 'guest country' this year).

Conclusion

This short paper can only introduce an enormously complex problem and encourage geographers to think more about the links between geography, languages and intercultural education. As educators, they should encourage people to question more deeply how their understanding of the world around them is moulded by their linguistic limitations and support those, not least in the English-speaking world who are fighting to promote foreign-language study. As researchers, they can make a major contribution to understanding a fast changing world by mapping and explaining geolinguistic changes. In this article, we have touched upon the spatial diffusion of English into an increasing number of linguistic domains around the world as well as the spatial flow of translations from one linguistic community to another. Many other avenues of geolinguistic investigation are open, not least analysis of the persistent and, in some cases, increasing linguistic diversity in Europe. Underneath the superficial veneer of 'global English', a multitude of languages remain vibrantly alive in complex geographical mosaics and still dominate the lives of most citizens. This is a reality which English-speaking geographers in particular should never forget.

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PART FOUR

**GLOBAL
AND ENVIRONMENTAL
GEOGRAPHY**

Sustainable development: let geographers take the lead (with a little help from some friends)

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Abstract

Sustainability is essentially a geographical issue with inherent spatial and trans-scale relationships and repercussions. More than any other single discipline, geography has the information and outlook to address sustainable development in its multiple dimensions. Why then, in Italy do geographers – along with other intellectuals and scholars – seem to be reluctant to take up the challenge? A brief analysis of the Italian scene is presented here. Is this reluctance appreciable elsewhere, and why – or why not? What reserves should geographers have against undertaking the mission of contributing to the sustainability discourse, given our discipline's unique position and the promising directions that are already being explored?

Key words: sustainability, environment, geography, curriculum, Italy

Introduction

Sustainability is geographical in its very essence (Wilbanks 1994, etc.): among all disciplines, geography is the one that has always dealt with both social and natural sciences, examining the interactions among these and between these and space – although not without a certain discontinuity in communication (Castree, 2003, p. 206), or even mutual suspicion between physical and human geographers. Anticipating the most recent, still under-explored trends of the research towards sustainability, geography has also long tackled cultural issues. What is possibly even more relevant, is that geography has a constitutional predisposition to deal with scales and inter-scales analysis, which is absolutely essential to a comprehension of the issues related to sustainability, given the complex trans-scale repercussions of all events, decisions, policies (Vallega, 1994, p. 20, Cencini, 2001, p. 145–146, Beroutchachvili *et al.*, 2004, p. 4). More than any other discipline, geography has accumulated a wealth of diachronic information on most of the constitutive aspects of sustainability, as are environmental change and vulnerability, resource-, information- and commodity flows, population and migration dynamics, transports, land planning and use, behaviour-, perception- and employment geography, health trends, geopolitical issues, service provision, lifestyles and poverty, bio-cultural diversity, etc. That is to say, the sustainability discourse badly needs the contribution of geographers.

It seems appropriate to put forth a personal premise, i.e. that with humans' limited knowledge it is not possible, and probably will never be, to ascertain and certify the absolute sustainability of a system – any system. Sustainable development itself is a

“non-objectifiable reality” (Kalaora, 2004, p. 160), and yet it has acquired an ontological status by the “objectifiability,” and indeed objective nature of its opposite, i.e. the un-sustainability of the development model that we are perpetuating. The opposite of sustainable development is not just business as usual, it is un-sustainable development. In other words, the opposition is not between utopia and reality, it is between survival and destruction. If no absolutely sustainable systems can be identified, nonetheless the relative un-sustainability and perfectibility of a system can and must be assessed: since no stasis is possible in nature or history, we have to choose what direction to take, and we can see sustainability as a “a series of steps along a pathway that never reaches a final goal” (anonymous quote in Bocchini Varani, 2001, p. 198). Today, our development model is a “wild-teleology system (Von Bertalanffy, 1968, pp. 124–130),” in that it continues its evolution without clear goals and strategies, or more precisely with vague, un-stated goals that claim tacit public agreement and a yet unconfirmed validity, but without seemingly having the capability to re-adjust, let alone radically transform its strategies to face patent changes. It would be of great benefit if the scientific world took a clear stance and made value assessments.

Yet in Italy, with few exceptions (Cencini, Vallega), geographers are far from being at the forefront of the sustainability debate, and indeed they are reluctant to make value judgements, based on the presumed “objectivity” and “impartiality” of geographical analysis. Apparently, being a geographer is different from being an ecologist – a geographer objectively and impartially examines a situation from all points of view and all aspects of the human-land relationship without taking either position or indulging in bias. Talking about occupational ethics and environmental education, though, ethicist Alastair S. Gunn speaks of the “dangerous assumption of “neutrality,” (undated, p. 24). Even in the U.S.A., geographers are often overlooked by policy-makers, and they themselves seem to “have chosen not to wade into policy debates” (Wood, 2004, p. 53). Are geographers “abstaining from sustainability” in other countries, as well? If that is the case, why is it so?

It is not just geographers but the whole of the Italian intelligentsia that seems to have embraced the issue of sustainability with a remarkable delay compared to the international agenda: this reflects the attitude of the Italian political world and public opinion, which have long confined all environmental considerations to political fringes and niche associations, and considered those through the deforming lens of the ever exacerbated political polarisation. Having relegated the environment to even more marginal positions than it had previously held for some time, the mainstream political activity and theoretical production has long failed to incorporate the sustainability discourse, only to realise recently, episodically and mainly locally (LA21), its great exploitability in terms of public popularity and support (and access to European or other funding). During geographers’ and other intellectuals’ absence, in fact, sustainability has become a fashionable word, and all efforts in the direction of environmental protection risk to be labelled as “sustainable,” even when little more than cosmetic or superficial measures. Being extremely vague, the very concept of sustainability lends itself to manipulations of all sorts; as with its

predecessor “green,” or the prefix “eco-,” the adjective “sustainable” already tends to sell any product (intellectual, political, commercial) with a good 30% of extra value added, no matter what the real quality of the product. Sadly but comprehensibly, Peter Timmerman (1994, p. 72) classifies the entire category of “sustainable development” among those “mild ecological reforms” to which mainstream political parties have committed themselves. The profusion of the “free riders” of sustainability has further diminished the credibility of the whole concept- the Italian general public has thus already developed a pronounced distrust towards the very word “sustainable” before even understanding what that is about.

Definite and somewhat “revolutionary” value judgements have been made by Sebastiano Monti (2000, p. 61): “It is a merit of ecology to have shown that no living being can walk by itself and for itself; that trying to find compromising solutions via negotiations between individual attitudes is illusory (there is no diplomacy in ecology); that “struggle” has no sense if against nature (...); that limiting social dynamics to the individual and state is false (...); that it is not possible to ignore social positions, whatever they are (shamanism, magic, spiritism, etc) based on an intellectualistic judgement.” Monti’s uniquely radical position is weakened by the fact that throughout the book, the author continuously ventures into theological considerations that seem to be heavily influenced by Catholicism, without much intercultural – comparative or inclusive – effort.

Far from sharing Monti’s radicalism, the attitude of many Italian geographers on this relatively novel issue is well summarised by the words of Attilio Celant, who explicitly links environmental degradation with the well-defined, little negotiable economic rules operating at present. He adds that although these rules are “certainly not the best that the organisational and scientific culture of the most economically advanced communities could have achieved,” they are the rules that “our Societies have selected and shared.” Therefore, “it is necessary, at least in the short-time frame, to search for solutions from within the paradigmatic scenario that has become hegemonic for about a decade (2001, pp. 119–120).” While the need for the gradualness and feasibility of changes is certainly not objectionable, should we not actively promote a shift of direction? Otherwise, will there be a real difference between sustainable development and all the excellent but un-coordinated and insufficient instruments identified by scholars and the legislation since the 1970s (in Italy “tutela, recupero, valorizzazione, protezione,” etc)?

Using the words “holistic,” “organic,” “externality-exporting basins and externality-absorbing basins” or “Permaculture” (from the fusion and contraction of “permanent agriculture and culture”) in front of an Italian geographic audience would send shivers down the spine of the listeners and cause more than a few smiles. Yet geography can count on its unique familiarity with spatial and environmental dynamics as a privileged “door” to access and then introduce students and the general public to even more complex and less obvious implications of sustainability (Bob Evans, Martha Chillida, International Conference on “Governing Sustainable Cities,” Fano, Italy, 4th–5th November 2004). Spatial, territorial and ecosystemic relations are a unique starting point to teach complex ideas such as a development

based on a natural curve rather than linear or exponential curve (Kennedy, 1995, p. 19), or illustrate the concept of circular vs linear metabolism, systems, synergy and maximization of internal energy and material flows vs monofunction and atomistic evaluation (Harvey, 1996, Gambini, 2004). Their usefulness is not only limited to defining information: they are uniquely placed to search for truly isomorphic communicative forms, design and test hypermedia, implicit and non-symbolic learning modes, that seem to be “much more powerful, effortless and less sensible to background and individual variations” (see Natale *et al.*, 1994 – although their assuming that a hypermap is the most isomorphic form for presenting descriptive geography seems to overlook that maps themselves are highly conventional and symbolic). Nature, the environment and space in general are privileged locations for meaningful sensory and game-based experiences, with all the cognitive advantages that these offer (Brunelli, 2004), and with an extraordinary versatility for the activation of senses and emotions, which are best suited to motivate learning, understanding, ethic participation and action (Jeronen & Kaikkonen, 2002). More broadly, environmental and spatial analyses can effectively challenge our general propensity for linear/bi-dimensional thinking and communication modes, which is not only determined by the constraints of verbal – written or oral – communication (text and speech sequencing), but which invests most of our representational and management domains: maps, time conception, architecture, the idea of economic growth, accounting, the standard logical notation for and common visualisation of the cause-effect relationship, which takes into no account feedback or side effects, etc... For effective action, planning and policies, geography could create strategic alliances with “friendly” disciplines, such as recently-born Permaculture, that has taken much from and has a lot in common with geography, albeit characterised by a more marked vocation for action and intervention.

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The contribution of Geography teachers to Education for Sustainability: a case study

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Key words: Sustainability, secondary education, national curriculum

Introduction

This paper presents the results of the first part of some collaborative research in ‘Education for Sustainability’ with a group of Spanish Geography teachers that are attending a program for in-service teacher development. The aim of this research is to investigate what Geography teachers can contribute to Education for Sustainability, that is to say: What Geography teachers think and know about sustainability? How Geography teaching materials (course books, articles, ICT, among others) deal with sustainability issues? What kind of handicaps do they have or think they would have for teaching on sustainability?

The Department of Didactics of Social Sciences of the Universitat Autònoma de Barcelona is currently undertaking research on how the Education for Sustainability can be introduced into the Spanish Geography curriculum of secondary education. The methodology of this research is qualitative and it is based on collaborative research, where 8 geography teachers participate and contribute in workshops with their experiences and thoughts. All the Geography teachers that participate in this research project teach in the same town, because the aim of the research project is to define learning strategies and to elaborate educational materials based on education for sustainability, following the indications of the national Geography curriculum but specially focused on local issues (due to the proximity and significance for the students) without losing a global point of view.

Geography and Education for Sustainability

The main aims of this research are to:

- investigate what Geography teachers can contribute to Education for Sustainability
- make recommendations as to how “ESD” can be incorporated into the Spanish Geography Curriculum

This article shows the results of the first part of the research, which is focused on part of the first objective: what Geography teachers can contribute to Education for Sustainability?

Much research in Environmental Education and Education for Sustainability, like that carried out by Alan Reid in his doctoral thesis (Reid 1998), proposes the necessity to analyse what knowledge the teachers have regarding these issues, in order to be able to establish a typology of Geography teachers in general. The methodology used in these cases is based on personal interviews. In our case we felt it would be better that the teachers explain what they know and what they think about sustainability and Education for Sustainability and as a result we used two focus group interviews to gather the information (in the line of Graham Corney's research).

Findings

The first focus group interview dealt with the concept of sustainability trying to answer three main questions:

- What does sustainability mean to you?
- What knowledge do you think you have on sustainability?
- Do you think achieving a sustainable society is possible?

All the teachers agreed, more or less, on the definition of sustainability. They used the Brundtland Report definition ("a process where the exploitation, the orientation of technological development and institutional change, are made consistent with future as well as present needs") as well as the one introduced by the UICN ("a feature of a process or a state that can be maintained indefinitely"). Once the concept had been defined we asked the teachers to explain the meaning of the definitions. At this point, all the teachers noticed the difficulty and the vagueness of the concept and its definition. The debate brought out different perspectives of sustainability, as Dobson (1996) notes and this meant that some of the teachers showed their pessimism stating that: "sustainability is being ideologically instrumentalized". But some of them stated: "independent as to how to do it, what is important is to work for sustainability". As a result of this first workshop, the teachers came to the conclusion that the knowledge they have that related to sustainability was diverse, and those who have wider knowledge are those who had been involved in ecologist groups, those who belong to green schools or those who are personally implicated with sustainability. The group of teachers that confessed to have a more limited knowledge about sustainability claim that this topic isn't their main worry, above all because they think that "the prevalent trend of today's society is unsustainable and sustainability is nothing more than an utopia".

The second focus group interview dealt with Education for Sustainability. The questions for the debate were: what does it mean to educate for sustainability? Is it necessary? How should it be worked in schools? What kind of problems do you have as teachers to teach for sustainability? In the beginning we started off by explaining and evaluating the characteristics of Education for Sustainability defined by Stephen Sterling (1996): "Education for sustainability is: contextual, innovative and constructive, focused and infusive, holistic and human in scale, integrative, process oriented and empowering rather than product oriented, critical, systemic and connective, ethical, purposive, inclusive and lifelong".

According to the teachers participating in the project, introducing Education for Sustainability into the Geography curriculum with the frame developed by Stephen

Sterling (2002) implies: “this kind of education has to develop skills to the students for action and participation; it is necessary for teachers to have a wide knowledge of the locality; it requires research on environmental problems that are taking place in the locality, and the outcomes presented by the students must have social relevance, that is to say, it must be seen as service learning, because while forming the students as critical citizens it helps the community to achieve sustainability, etc.” These teachers, in their majority, consider that Education for Sustainability is a good theoretical educational model, but it is difficult to put into practice because of the following factors: “because we are over worked we cannot produce teaching materials; we don’t have the proper tools to produce these materials; we find that if outside agents such as the council or private educational companies offered these materials, we feel it could be feasible: E S has to impregnate the whole school and there must exist a project in common; we teachers need to have facilities to access to professional development programs”.

Conclusions

After working together, the teachers participating in this investigation reached the conclusion that the main factors that might influence Geography teachers in focusing their teaching on sustainability include whether:

- they think this is important for them as Geography teachers and/or for Geographical Knowledge;
- they have been sufficiently exposed to Sustainability theoretical frameworks;
- they think doing this is feasible, or they know how to do it;
- the school context management encourages them;
- teaching materials are related to Sustainability.
- they are personally concerned about the need for Sustainability;
- they are involved in external projects that provide motivation; and
- they are involved in educational research concerning Sustainability.

The teachers participating in this investigation agreed that most of Geography teachers need training for their professional development on sustainability, and they found that a good way of training was the one conceived as a series of workshops of collaborative research where a final educational material is produced.

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Sustainability, Development and Security in Landscape Field Practice

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Abstract

This article starts with the reflection of a contemporary position and the interconnectedness of sustainability, development studies, and security studies. It asserts that after the Cold War structure was dismantled, new agendas, issues, and approaches have been brought to the fore. The next section investigates these trends within the realm of teaching sustainable development and comments on the changes that have occurred in the educational process. The third part “goes practical” and suggests some options for the analysis of cultural landscape ecosystems. The last section consists of some selected relevant literature.

Key words: geographical/environmental education, landscape ecosystems, fieldwork, sustainability, security, development

Sustainability, Development, and Security: Initial Reflections

The following text reflects a contemporary position and the interconnectedness of sustainability, development studies, and security studies. After the Cold War structure has been successfully dismantled and new agendas have been opened, the connection between sustainability, development and security has been brought to the fore. The reaction has taken place at two different levels. The practical level has been marked by the introduction of various sets of criteria that all share the common goal- the increase in the sustainability of submitted projects and plans. As far as the academic and theoretical level is concerned, this has been experiencing the ongoing process within which theoretical integration and re-connections between disciplines occur.

The necessary prerequisite for efficient and effective problem-solving has been a dramatic shift in the ontology of international politics. As the nation-states with their traditional emphases on national security remain juxtaposed by the new benchmarks stemming from the practices of global civil society and the legislative activities of intergovernmental organizations (EU, UN), more and more attention is being paid to the importance of the needs and milieu of individuals. The result of these changes is a significant overlap of the political agenda on one hand, and scientific and educational agendas on the other. Thus the issues selected by gatekeepers for the

decision-making process need to be chosen on the basis of their natural links, rather than having deliberative omissions of their particular dimensions due to “strategic” or “security” reasons.

The notion of human security and development has been by far the best example of attempts to de-black-box various taboos of the political process. The image of political space has been extended and now incorporates the full range of new actors (NGOs, epistemic communities, bureaucratic coalitions etc.) and their intermediaries (the Internet, independent press etc.). These new actors can be conceived of as transnational networks that for their own reasons have become involved in the process of political negotiations and bargaining. It has been largely due to these actors that a number of former “high level politics”, such as military and economic issues have been de-securitized, i.e. they are no longer the subject of taboo and privileged access. As the failure of many post-Cold War solutions that are concerned with the renewal of war-torn and/or underdeveloped areas have shown, the analytical barriers between “security”, “sustainability”, and “development” have only been artificially created and maintained. It has been ever clearer that these issues would never be solved without a return to the natural links between the socially constructed categories which had their original purpose in the attempts of power-monopoly maintenance. How could peace be kept in the area if there remains a general lack of access to the basic resources? How could sustainable development be promoted in the area where there is still the heavy presence of civil clashes? How can local wisdom be incorporated into project design? What is the role of/for education under such circumstances?

Thus it has become obvious that the educational system in these ‘conflict’ areas needs to be changed, if not generally overhauled. The role of education can be seen in the attempts to interconnect all these realms. The issues involved will include women’s participation in peace-building activities, the use of local knowledge, the connection between traditional culture and the overall strategy of sustainable development and the support of grassroots movements to mention a few. All these paradigmatic shifts require a brand-new and unbiased point of view. The traditional role of scientists and academics needs to change. They are not any longer the objective agents imposing their mental representations on reality. They are rather good listeners and observers in the first instance, they are humans. The Western philosophy object-subject distinction that has been mechanistically followed since Aristotle continues to be eroded. Issues are becoming more contextualized. There is nothing like a natural gap between professional and private activities

Teaching Sustainability

As far as Czech geographical education is concerned, this theme remains a Cinderella area due to the absence of cooperation between physical and human geography and the low interest of geography teachers. Contemporary development is bringing about some improvements, mainly in research, but less so in education. The Czech geographical education community remains rather inconsistent in spite of the presence of governmental programmes and a new National Curriculum that

includes geography. The context is, however, a very strange one. It distinguishes between “science” and “humanities”, where the latter does not include geography. Geographical school practices are also inconsistent and follow the lead of environmental research and education at geographical departments in Czech universities. This is the reason for the use of foreign experiences: for instance, we could use the three collections of papers concerning geographical education in England and Wales as a point of reference.

Without any doubt joining environmental change and sustainable development in education is a challenge, as Reid (2002) points out in the case of geographical education in the new National Curriculum for England (DfEE/QCA, 1999). Hicks (2002) sees the role of geography in connection with citizenship and the education concerned with sustainable development. Hicks offers four different scenarios for geography in a process leading towards mastering key skills. McDonald (2000) promotes a geographical-education shift to ecology and ecological management. Quite demonstrative of this is the case study of Mauritius: is very instructive, though the landscape ecology is not included. Morgan (2000) exceeds not only the ‘enlightened traditionalism’ in teaching geography but also the ‘cartographic fetishism’ and directs it towards human geographies tackling social processes, towards the construction of social reality aimed at sustainable society.

Binns (2002) is aware of problems with defining ‘the development’, his view emphasizes social and economic attributes, differences between developed and developing countries and does not ignore field courses. Kent and Foskett (2002) claim that the experience of fieldwork can accelerate or enhance many aims of geographical learning as well as establishing links to affective and cognitive gains contributing to student’s personal and intellectual development. They integrate thinking skills development into fieldwork planning. Thus it turns student activities from observation to participation, from dependent to autonomous and from staff-led projects to group/individual ones. On the other hand Leat (2002) warns us not to overvalue concrete thinking that could eventually lead to a black-and-white view on the world. However, ‘formal operational thinking allows the world to be considered more flexibly, because situations can be formulated and represented in some symbolic form’ related to explanation. Nonetheless his examples of practical environmental issues are very impressive.

Going Practical

Our way of conducting environmentally based fieldwork in geographical education predominantly focuses on construction of environment by textbooks, media and their mutual outdoor rectification, personal experience of students and social communication with local communities (Forsyth 2003). Cultural landscape ecosystems represent in this analysis basic spatial units for sustainability studies. Here in conclusion is a form for the outdoor education of Cultural Landscape Ecosystems Local Survey:

1. Representation of landscape reality in maps, information systems, symbols, icons, visions, metaphors, mass media, art – prose and poetry, painting, music...
 - land cover, land use at thematic map – spatial pattern of landscape

- information sources, geographical data – official, non-official, imaginative,
 - computer cartography, GIS
 - understanding and explaining the landscape
2. Landscape immediate reality in the field work
 - authentic landscape/environmental perception
 - survey, field observing, key points description, landscape transects
 - talking to people, participating, ethnographies
 - landscape policy – planning, strategies, programmes, projects
 - practicing landscape studies – urban, suburban, subrural, rural issues
 3. Landscape spatial pattern
 - physical components sandwich (abiotic, biotized, biotic)
 - physical/cultural palimpsest (anthropogenetic)
 - recent human/nature interactions – physical components as resources
 - processes shaping the landscape, the role of technologies
 3. Land cover, land use
 - functional spatial segments and their owners and users
 - applied technologies and human activities in agriculture, manufacture, engineering, transportation, services, housing, recreation, water management, waste management
 - energy production, transmission and consumption
 - incorporation into economic and social systems – human resources
 4. Landscape ecosystems
 - eluvial, transeluvial, transaccumulative, transaquatic, aquatic
 - cultural ecosystems pattern, natural/technological systems, infrastructure
 - physical structure – matter/energy vertical and horizontal flows
 - human activities changing physical landscape to cultural, landscape heritage
 - vulnerability and resilience, diversity and biodiversity
 5. Detailed (optional) physical components and processes analysis
 - landforms as products and factors on rocks, regolith and slope sediments, anthropogenic landforms
 - topoclimate – aspect, local circulation
 - hydricity (hydrocycle)
 - soil cover structure
 - vegetation cover – potential/reconstructed and actual phyto(bio)cenoses
 6. Natural capital of landscape ecosystems
 - goods and services in the frame of production-distribution-exchange-consumption
 - owners and users: assets, stock, yield, income
 - labour and finance – inside/outside flows
 7. Landscape as a part of human environment
 - perception and imagination, mental maps
 - pollution, waste production and management
 - natural disasters/hazards, risks and security
 - environmental management and infrastructure

- protected areas
8. Landscape sectoral policies
 - cultural
 - economic
 - social
 - environmental/ecological
 9. Social construction of landscape
 - description and interpretation
 - evaluation and design
 - plans, strategies, programmes, projects
 - social capital
 - personalities and communities
 10. Landscape sustainability – soft, or hard?
 - symbiosis/conflicts of nature and technology
 - ecological/environmental infrastructure, land use regimes
 - land use temporal changes, revitalization vs. deterioration
 - local/regional/landscape interface
 - development – pros and cons
 - processes and responses caused by (non)usage
 - landscape as a part of production, reproduction and consumption
 - proposals of landscape modifications towards sustainability

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Developing geographical professional abilities: experiences in Egypt and Brazil

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Abstract

Sustainable development asks for solid systemic and territorial knowledge, abilities in new decision making processes and skills in recognition and empowerment of local actors. Geography can supply the challenge of sustainable development with theory and practice.

This paper deals with the experiences of the author in field work improving students with geographical knowledge and practices about participatory territorial (land use) management.

Two examples are displayed: a seminar with students studying a degree in Development Cooperation held in Egypt in November 2003 and a seminar “Citizenship, Territory and Power” in Salvador de Bahia (Brazil), in March 2004, with the degree students in pedagogy working in a community school.

In the two cases geography represent an important theoretical and practical tool to work in territorial dynamics, for geography in education it is strategic and compulsory to go back to “the reality of territory”.

Key words: Sustainable development, professional abilities, participatory management

Introduction

Sustainable development is the result of virtuous interactions in social practices including: consumption models, social relations and institutions and environmental systems. This virtuous interaction is facilitated by promoting awareness of the choices of local societies, which are the keystone of sustainability practice. Facing the issue of sustainable development means to take into consideration first of all the interactions among economy, society, environment, focusing on the manner local society achieves self welfare. This refers to both local resource use and necessary economic exchanges including mobility, with other societies and countries. The way local resources are used is related to our efficient use of them and to the maintenance of environmental conditions (mainly climate and biodiversity) that allowed humans to live and local societies to become rooted in specific places. The necessary economic exchanges relate to critical issues like equity, social justice, because the welfare in a local society is based on a high quantity of external resources (Bresso, 1993; CSD 1997; Dasmann, 1988; Gadgil, 1995). So, the efficient use of local and external resources joined with environmental stewardship is the keystone of sustainable development. Sustainable development is characterised by three dimensions:

- sustainable development as a local process, the local territory has an important task in creating local and global networks, region are cornerstones of development
- sustainable development as a planned and communication process
- sustainable development as a participated process, the key is empowerment of local stakeholders, the construction of a participated decision-making system and conflict management strategy (Arnstein, 1969; Chambers, 1992; 1997; IIED, 1991; Redclift and Sage, 1994; UNDP, 1993).

Need for knowledge and skills in sustainable development

Geography is concerned with sustainable development theory and practices and geography can also supply territorial (landscape) knowledge. It also provides students with the abilities to actively participate in new decision making processes and skills in recognition and empowerment of local actors (Bertoncin, Sistu, 2001). Central issues in any decision related to actors, territories, natural resources are power relations and the way to achieve consensus and to deal with conflicts. (Floc'Hay, Plottu, 1998)

In the practice of territorial decision making any action should be appraised in a context wider than the strictly technical and economical issues of the action or the sectoral and territorial circle directly involved by the plan or programs. Environmental and territorial issues deal with social and ecological relationships more complex than those apparently influenced from the project or the program. The issues of social equity and environmental carrying capacity are tightly connected (Berkes, Folke, 1998; Elling; 2000; Funtowicz *et al.* 1999; Gunderson, Holling, Light, 1995). Choices concerning the environment have always more to do with distributive policies; in every project, plan or program at stake is the socio-spatial justice; typical examples are the location of landfills, roads or dams: the costs are supported by the receiving territory whereas benefits are enjoyed by territories or populations localised far from the place mostly hit, often there are no compensation measures. This reasoning does not intend to support the zero hypothesis as the best solution, rather to project or program alternatives which have to be appraised not only in terms on environmental impacts, but also against the socio-spatial implications influencing either the definition of the priorities and the results. In the practice of environmental assessment this issue of socio-spatial justice has been faced foreseeing the consultation of the public after the conclusion of the impact statement.

The social network that interacts with every plan or program foresees four typologies of actors: the proponents, the environmental authority, the directly affected actors and public opinion. If two actors are traditionally in narrow contact during all the phases of the evaluation (proponents and environmental authority), directly affected actors and population have often few opportunities to contribute, so actual "participatory" models consist in the post-consultation phase which results in a dynamic that often threatens to crystallise in the classical decide-announce-defend (DAD) mode.

True public participation processes in decision-making are necessary to improve the quality of the decisions made and strategic in order to make them more acceptable and shared within the environmental and territorial policies. Besides this, participa-

tion contributes to the growth of environmental consciousness. Citizens and local actors should participate in the construction of environmental policies on the basis of common conditions. Articles 6,7,8 of the Aarhus Convention contains indications concerning public participation on projects, plans, programs and legislative initiatives dealing with environment. The directive proposal foresees that the member States assure: the information of the public on each plan, program or they revision, the possibility to express comments and observations before the approval, the guarantee that any observation is taken into consideration before the approval. Member States take the necessary actions to identify citizens or the groups participating in decision-making] with particular attention to environmental NGO. Sustainable development and the framework of the Aarhus Convention represent an important basis to breed a geographical background with the challenges of knowledge and professional practices. The two case studies below show how geography in fieldwork can contribute through knowledge and practice to sustainable development.

From agricultural development to territorial development: lesson from New Valley (Egypt)

The University of Padova offers a three year degree in Development Cooperation preparing people interested in working in international organizations, NGOs and local authorities dealing with development issues. The Department of Geography of Padova University is the animator and coordinator of this inter-faculty degree (arts, agriculture, education, political sciences). The degree requires student to complete a compulsory placement in a development project and offers students some seminars based on cooperative learning. At the beginning of their third year students participate at the international seminar based on fieldwork in Egypt.

The purpose of the seminar is to identify actors, strategies, resources, networks which are nowadays leading the local development processes in the New Valley.

At the seminar, organised between 8–22 of November 2003, 35 students participated with 4 staff members (a full professor in geography, a lecturer in geography and 2 tutors). The seminar was located at Mut, about 600 Km south of Cairo. Seminar work was concentrated in 7 days full time equivalent of fieldwork and cooperative learning (11 days when considering travel from and to Italy and transfers Cairo-Mut).

Day 1 was devoted to a first contact with the New Valley (reconnaissance survey and group work) and a keynote lecture (45 min.) on Regional development of New Valley. Each step of the seminar was integrated with groupwork activities for consolidation and preparation of small reports (at the end of seminar a completed report was issued).

Through fieldwork and cooperative learning during days 2 and 3 (11th and 12th of November) the patterns of agricultural development were analysed. The 35 students were divided in 4 “interest groups” each group was integrated with a staff member and a translator (from Arabic to French or English). Students were able to visit the field and to carry out interviews with members and farmers of cooperatives (Gharb el Maughub, Mut), traditional farmers and leaders (El Sheykh Waly) in order to

understand and compare traditional farming based on local management of water and models implemented by agricultural development projects based in new irrigation schemes. In the afternoon of day 3 students presented the results of their fieldwork. The following day was organised as a plenary session giving students the possibility of comparing their points of view (resulting from fieldwork) with two keynote lectures done by Egyptian experts on: water issues in the New Valley, agricultural issues in the New Valley. The debate was interesting and very rich with important contributions and exchanges of experience among experts and students. This first step was concluded with a plenary session and a keynote lecture done by the coordinator of the seminar (P. Faggi) on water in irrigation: changing patterns.

The following day was devoted to rest and it was a good opportunity to gain knowledge of the wide landscape around the project. During day 6 of the seminar students worked on the 'Pattern of Territorial Development' (through groupwork) each of the groups analysed a different issue with visits and interviews: these included the tourist sector, commerce sector, public utilities sector and local government. The following day students prepared the presentation for the plenary and final session of the seminar and issued the report. Thus, in just a few days students were able to practice the knowledge of the first two years of their degree and to enter in a new place and to develop their skills to identify actors, on going development processes and to design ways to increase abilities of local actors to deal with development perspectives. It was also a good opportunity to deal with some critical issues: the role of insiders and outsiders, development and dynamics local-global, transfer of technology and development models.

Citizenship, Territory and Power in Salvador de Bahia (Brazil)

The University of Padova has many cooperation agreement with African and Latin American Universities for student and teaching staff mobility and joint study programs. In March 2004 (8th–24th) in the framework of the agreement between the University of Padova and the Universidade Estadual da Bahia a program of thematic seminars about "Citizenship, Territory and Power" was developed at Salvador de Bahia with the collaboration of the Departamento de Educação Campus 1 e Núcleo de Estudos Italianos da UNEB (NESTI) .

The seminars involved about 100 students, mainly women, studying for a degree in Pedagogy working in community schools (*curso de Licenciatura em Pedagogia com habilitação em series iniciais do ensino fundamental*). Community schools are normally primary schools provided by non-profit organizations and community based organizations to answer educational needs of local poor communities in many area of Salvador's suburbs. The experience of alternative education and community schools are typical examples of citizens' organization in Latin America (Freire, 1973; 1986).

Seminars were organised by considering the needs of the student-workers, they are working during the day in the community schools so the theoretical parts of the seminars were set up for the night session and the fieldwork was integrated with daily work in the school. The seminars were based on a participatory approach and

cooperative learning using as theoretical tools the geography of power (Raffestin, 1993) and the geography of complexity (Turco, 1988).

Salvador the Bahia represents a living learning environment, the transformation of the city makes it easy to understand and to see “the geographical interpretation in action”. So the seminar was based in the recognition of the patterns and the processes actually governing the urban transformation. The students were able to build and to map the history of their quarters, to individualise the on-going conflicts among inhabitants, municipality, other land owners, to individualise the communication strategy of Government and Municipality, to understand the way in which consensus and territory control are elaborated. All them are working as teachers, many of them also developed empowerment through social work in the community, so the experience represented an important opportunity to improve the tools (theoretical and practical) for their work in the field of transformation of space.

Walking Sustainable horizons with geographical knowledge and tools

After one decade of patchy experience of sustainability the need now is to consolidate sustainability practice and to embody sustainability approaches into current individual, public, private, actions. Many communities in the world have produced in these ten years a wide spectrum of experiences in sustainability including research, business, public administration, civil society, and in different sectors from tourism to farming, from transport to landscape and territorial management. It is time now for a second generation of sustainability projects based not so much in pilot experiences but more on consolidation and diffusion of successful practices. So, training, education, exchange among partners, monitoring of successful experiences, and a strategic integration among knowledge communication and practices, are the kernels of definitive transition to sustainability horizon.

Sustainability culture should become a diffused aspect of decision making practices and not remain the property of enlightened minorities or a theoretical benchmark far from reality. The land use daily decision making of individuals, firms, public administrations, have to face conditions of complexity and uncertainty. They need a vision of sustainability that will help them to take strategic and adaptative decisions. In this changing context sustainability may not be an optional decision, but is becoming the chosen option. This new decision making paradigm can be easily supported by the wise diffusion and integration of existing experiences and the knowledge the practice of geography in educational institutions and in the field of territorial policies.

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Studying climate and water resources management in Bulgaria in the context of global environmental management

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Abstract

Water resources management and climate change problems are a priority in the EU environmental policy. The Bulgarian position is fully in compliance with the EU position. The country expects to join the EU in 2007. This paper points out that scientific activity is the essential base for good work of specialized structures for the performance of environmental policy. The main topics of the Masters degree program "Climate and Water Resources Management" are presented.

Studying climate and water resources management at the Faculty of Geology and Geography, University of Sofia, is harmonized with the legislative documents in the field of environment – Water Framework Directive 2000/60/EC and United Nations Framework Convention on Climate Change (UNFCCC).

The knowledge and experience obtained from the Masters degree program "Climate and Water Resources Management" improves the prospects of professional development in the following areas: environmental protection (and especially air and water quality control), water economy, water and climate melioration, energy resources (renewable resources), tourism, agriculture, land use, urban and region planning, education.

Key words: Environmental policy, climate change, water resources management

Climate and water policy in Bulgaria, compliance with EU environmental policy

EU environmental policy combines ecology and economy. Water resources management and climate change problems are a priority in EU environmental policy. Bulgaria has signed the contract to join the EU. The successful outcome of the negotiations demonstrates the achievements resulting from new ecological legislation in compliance with the requirements of the EU.

In the process of euro-integration Bulgaria faces the many challenges. The key needs for the future of Bulgaria (Petkova *et al.* 2004) are the following:

- Consolidation of economic, legal and institutional systems on regional, cross-border, national and local scale in compliance with the new political and economic realities.
- Recruitment and training of specialists for management of the environment.
- Securing of funds for tackling environmental problems.

In relation to the environment, the following basic principles are obligatory for the EU and Bulgaria (Anguelova *et al.* 2003):

1. Preventive principle – preliminary to avoid the unfavourable influences on the environment
2. Principle of ‘contaminant pays’ – i.e. the costs for avoiding, removal and compensation of the negative effects on the environment to be at the expense of the person(s) or organization(s) responsible.
3. Principle of combating the unfavourable influences on the environment at the source.
4. Precaution principle – refraining from activities that are likely to have adverse influence on the environment

To achieve the requirements of EU environmental policy it is necessary for Bulgaria to:

- develop, apply and distribute technologies, practices and processes that control, limit and decrease the anthropogenic impact on the environment
- elaborate and apply strategies and measures that should be complex and should cover all scope of human activity
- work for sustainable management
- ensure the public training, preparation and awareness with regard to the environmental problems such as climate change or water deficit.

Main legislative documents in the field of water and climate policy. What does Bulgaria do?

The main legislative documents in the field of water and climate policy are the Water Framework Directive 2000/60/EC and United Nations Framework Convention on Climate Change (UNFCCC). The Water Framework Directive 2000/60/EC establishes a framework for Community action in the field of water policy (Directive 2000). It has a practical importance for water industry, business, agriculture, NGOs. Sustainable use of water and protection of ecosystems form the basis for the framework of approaches, tasks, principles, definitions and measurements. The Water Framework Directive ensures strong legal support for integrated water resources management (IWRM). IWRM is the process, which stimulates co-coordinated development and management of water, land and water resources for maximum increase of economic and social well being without compromise or damage to sustainable ecosystems (GWP, 2000).

The United Nations Framework Convention on Climate Change (UNFCCC) was adopted in New York on 09.05.1992 and was signed by Bulgaria on 05.06.1992. The Bulgarian Parliament ratified the UNFCCC in March 1995. UNFCCC put in the foreground the agreement of the nations to work together on the problem of the climate change, the consequences of which will have greater importance for the future than for the present generation (United Nations, 1992). The UNFCCC gives also the frame and the process of negotiation on concrete future activities. Such activities could be regulated by protocols to it. The Kyoto Protocol was accepted in 1997, signed by Bulgaria on 18.09.1998 and subsequently ratified in 2002.

By signing and ratifying the Kyoto Protocol Bulgaria commits itself to work for the decrease of the anthropogenic greenhouse gas emissions by 8% for the period 2008-2012 compared to their level in 1988 (United Nations, 1997). As Party to the Convention Bulgaria provides detailed information about its policy and measures through National communications. Three National communications were developed – in 1996, 1998 and 2002 years. Bulgaria conducts annual inventories on greenhouse gas (GHG) emissions and publishes National GHG Inventory Reports.

Bulgaria has a significant experience in applying the mechanisms of the Kyoto Protocol and until now the country has approved 10 projects which aim to decrease the emission of the order of 10 millions of tons CO₂ – equivalent. Bulgaria has signed the agreements for purchase emissions through the mechanism of “joint implementation”. The mechanism “emission trading” gives an opportunity for separation of earnings of international emission trading and for induction of green investment in Bulgaria. Bulgaria has now developed its Second Action plan on Climate Change for the period 2005–2008. The plan considers the actions for application of policy and measurement for greenhouse gases decreasing in different sectors as actions concerning possibilities for monitoring and registering of the emissions and systematic assessment of trends and forecasts.

The Masters degree program “Climate and water resources management”

Climate change and water resources problems involve complex interactions between climatic, environmental, economic, political, institutional, social and technological processes. This may have significant international and intergenerational implications in the context of broader societal goals such as equity and sustainable development. Climate change and adaptation affect most sectors of the economy. It is necessary to understand and estimate this impact and to develop and support national position and policy. One of the main tasks for modern science and society is the development and implementation of measures for improving the relationship between researchers, policy and decision-makers and public participants. One way that this can be done is by dealing with these issues at postgraduate level.

The Masters degree program “Climate and Water Resources Management” at the Faculty of Geology and Geography of the Sofia University aims to train professionals in climatology and hydrology. The aim of the course is that they will be able to work in interdisciplinary and international teams. The course program was established in 2001 and is based on today’s demands. It is characterized by the following:

- modules that provide basic knowledge, as well as specific topics concerning different aspects of climate and water resources management;
- a curriculum which complies with needed skills, including not only factual knowledge, but also computer skills, methodical skills, presentation skills, teamwork;
- a study program that is linked to practical work by a series of exercises based on seminars and by contact with experts in environmental management;
- an interdisciplinary course, in order that students are able to get to know different points of views and ways of thinking in order to gain interdisciplinary skills.

The main subject topics of the Masters degree program “Climate and Water Resources Management” are:

- methods for resource assessment,
- climate and the influence of water resources on different human activities,
- principles of climate and water resources use,
- models for climate and water resources management,
- the influence of anthropogenic activity and
- legislative aspects.

The knowledge and experience obtained through the Masters degree program allows students to obtain professional experience in the following areas:

- environmental protection (and especially air and water quality control),
- water economy,
- water and climate amelioration,
- energy resources (renewable resources),
- tourism and
- agriculture.

The program is designed to meet the new challenges set by the EU by integrating inputs from the environmental and human sciences into the study of climatology and hydrology. This allows students to find ways to solve present and future environmental problems in an interdisciplinary framework, to gain knowledge in environmental sciences and their practical application, to learn how to use methods in system analysis, modelling, and data management. The program enables students to define and solve problems related to global warming or water resources in the business world as well as in public organizations and the broader society. The need from teaching in integrated water resources management is discussed by Zlatunova and Penkov (2000).

Program Structure

The Masters degree program “Climate and Water Resources Management“ is three semesters long and includes obligatory and optional courses. The last semester is dedicated to production of the Masters thesis. For the Masters degree students need of 90 credits including 15 credits for successfully defended Masters thesis. The credits are determined according ECTS and Regulation N 21 from September, 30, 2004 for implementation of system for transfer of credits in higher education (State Gazette No 89/2004). The course description is given in Table 1.

The curriculum of the Masters program “Climate and Water Resources Management” is consistent with studies based on the bachelor’s program in geography, geography and biology, history, geography and ecology. The students in this program are students who are interested in finding solutions to environmental problems and conflicts, especially by taking socio-economic circumstances of the working area into consideration. The students receive knowledge and experience in such areas as environmental planning, environmental policy, environmental management systems, corporate social responsibility, logical framework analysis, energy analysis and planning etc. The program also provides the students with an understanding of the social

and political implications of planning and management within the environmental field. This includes an understanding of the relationships between companies and stakeholders and an introduction to various types of environmental regulations. The students that graduate with a Masters in “Climate and Water Resources Management” are also able to communicate in the languages of governments, businesses and NGO’s.

Table 1. Courses in the Masters degree program “Climate and Water Resources Management“.

Obligatory	ECTS	Optional	ECTS
<i>Modelling and forecasting in climatology and hydrology.</i> Study of climate and river runoff as an object of modelling and forecasting. The basic fundamental principles of statistical models of climate and water balance are considered	6	<i>Applied climatology.</i> The course aims to provide knowledge and skills for preparation of research projects.	6
<i>Methods of climatic investigation.</i> Statistical methods and analysis for characterizing climate elements and phenomena and climate change are presented.	6	<i>Applied hydrology.</i> The methods of analysis and control of water quality are considered	6
<i>Methods for investigating river runoff.</i> Study the theory and methodology of studying river runoff at locations with natural and anthropogenic impact.	6	<i>Synoptic analysis and synoptic climatology.</i> Study the processes in the system earth – atmosphere and weather forecasting.	6
<i>Hydro-climatic resources in Bulgaria.</i> The spatial distribution and state of water and climate resources in Bulgaria are investigated	6	<i>Climate change.</i> The module gives information about climate change – causes, impact, adaptation and mitigation.	4.5
<i>Legal framework for regulation of the use of air and water.</i> The module considers the legislation of water and climate resources utilization.	3	<i>Recreation and medical climatology.</i> Investigating climate impacts on recreation and human health.	4.5
<i>Water resources management.</i> The main methods, forms and schemes for water resources management are presented. The approach for integrated water resources management is considered.	4.5	<i>Renewable energy resources.</i> Study of the spatial distribution of renewable resources and their practical importance	4.5
<i>Air and water monitoring.</i> The module deals with the observation and control of water and air pollution and about building and optimizing monitoring network.	4.5	<i>Geography of climate and climatic resources.</i> The main climate types are presented. The principles and methods for climatic classification are considered.	4.5

		<i>Resources and monitoring of the ocean.</i> The objects of the module are to investigate biological, chemical, mineral and energy resources of the ocean and their utilization and protection.	4.5
		<i>Urban hydrology.</i> The module examines the hydrological cycles in urban territory.	3
		<i>Black Sea.</i> Genesis, geography characteristics and ecological problems of the Black Sea are studied.	3
		<i>Ecology assessments and expertise.</i> The module aims to give knowledge about methods of ecological assessment and the analysis of anthropogenic impact on the environment.	3
		<i>Risk phenomena in the atmosphere and the hydrosphere.</i> The main definitions and methods for analysis and risk assessment are presented. The relationship between hydro-climatic and socio-economic factors is examined.	4.5

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