MASARYKOVA UNIVERZITA

FILOZOFICKÁ FAKULTA

Distance Learning at Secondary Schools: Improving Pronunciation Through Educational Videos

Magisterská diplomová práce

BC. ANNA ŠTANGELOVÁ

Vedoucí práce: PhDr. Kateřina Tomková, Ph.D.

Katedra anglistiky a amerikanistiky
Učitelství anglického jazyka a literatury pro střední školy

Brno 2022

MUNI
ARTS

Bibliografický záznam

Autor:	Bc. Anna Štangelová Filozofická fakulta Masarykova univerzita Katedra anglistiky a amerikanistiky
Název práce:	Distance Learning at Secondary Schools: Improving Pronunciation Through Educational Videos
Studijní program:	Učitelství anglického jazyka a literatury pro střední školy
Vedoucí práce:	PhDr. Kateřina Tomková, Ph.D.
Rok:	2022
Počet stran:	127
Klíčová slova:	výslovnost, výuka výslovnosti, distanční výuka, střední škola, edukační video, Youtube, Irena Hůlková

Bibliographic record

Author: Bc. Anna Štangelová
Faculty of Arts
Masaryk University
Department of English and American Studies

Title of Thesis: Distance Learning at Secondary Schools: Improving Pronunciation Through Educational Videos

Degree Programme: Upper Secondary School Teacher Training in English Language and Literature

Supervisor: PhDr. Kateřina Tomková, Ph.D.

Year: 2022

Number of Pages: 127

Keywords: pronunciation, teaching pronunciation, distance learning, secondary school, educational video, Youtube, Irena Hůlková

Anotace

Tato diplomová práce se zabývá použitím edukačních videí ke zlepšení anglické výslovnosti na českých středních školách v době distanční výuky. Práce zkoumá pokrok studentů, kteří během distanční výuky v době celosvětové pandemie nemoci Covid-19 sledovali vzdělávací videa Mgr. Ireny Hůlkové, Ph.D. se zaměřením na správnou anglickou výslovnost. Cílem práce je zjistit, zda je možné zlepšit anglickou výslovnost žáků pouhým sledováním edukačních videí. Ke zjištění těchto cílů byl realizován výzkum, který analyzuje sesbírané hlasové nahrávky žáků. Centrální výzkum doplňuje dotazníkové šetření, které zkoumá motivaci žáků v průběhu výzkumu.

Abstract

This thesis deals with the use of educational videos to improve English pronunciation in Czech secondary schools during distance learning. The thesis examines the progress of students who watched educational videos by Mgr. Irena Hůlková, Ph.D. on correct English pronunciation. The aim of the study is to determine whether it is possible to improve students' English pronunciation by solely watching educational videos. Experimental research was conducted during which the students' recordings were analysed. The main body of the research is complemented by a questionnaire survey that investigates the motivation of the students during the research.

Declaration

I hereby declare that the thesis titled **Distance Learning at Secondary Schools: Improving Pronunciation Through Educational Videos** that I have submitted for assessment is entirely my original work, and that no part of it has been taken from the work of others unless explicitly cited and acknowledged within the text of my thesis.

Brno October 11, 2022

.....
Bc. Anna Štangelová

Acknowledgements

First and foremost, I would like to thank my supervisor and mentor, PhDr. Kateřina Tomková, Ph.D., for her immense patience, helpful guidance and kind support.

I would also like to thank my students who took part in the research and worked hard to provide me with data for this thesis.

I also want to thank the assessors who kindly invested their precious time in helping me with the research.

Last but not least, my gratefulness goes to my partner, my family, friends and colleagues, who always supported me and reassured me that I am capable of finishing this project.

Thank you all.

Table of Contents

Table of Contents 11

List of Figures 13

List of Tables 14

1 Introduction 15

2 Theoretical Section 19

2.1.1 Terminology 20

2.1.2 Role of accents in the research 22

2.2 Segmental features 23

2.2.1 Sounds used 24

2.2.2 Vowel: ash /æ/ 26

2.2.3 Vowels: e /e/ and a /ʌ/ 29

2.2.4 Consonant: th /θ, ð/ 30

2.2.5 Voicing 32

2.3 Suprasegmental features 36

2.3.1 Sentence stress 38

2.4 Teaching pronunciation 41

3 Research Section 45

3.1 Methodology 45

3.1.1 Research objectives 49

3.1.2 Hypotheses 50

3.2 Research setup 51

3.2.1 School 51

3.2.2 Students 52

3.3 Hůlková's videos 53

3.3.1 Description of videos 55

3.4 Research realisation 58

3.4.1 Data collection 59

3.4.2 Research structure 60
3.4.3 Recordings 62
3.4.4 Evaluation of the recordings 64
3.4.5 Example of selected participants' evaluation 65
3.4.6 Questionnaire survey 67
3.5 Research experiment results 69
3.5.1 All classes results 69
3.5.2 Group 1 results 72
3.5.3 Group 2 results 76
3.5.4 Group 3 results 78
3.5.5 Other assessors' results 80
3.6 Discussion 82
3.6.1 Recordings 82
3.6.2 Questionnaire 87
3.6.3 Hypotheses analysis 95
3.6.4 Research limitations & further suggestions 97

4 Conclusion 99

Bibliography 102

English Summary 105

Czech Summary 106

Appendix A – Assessors' Text 107

Appendix B – Assessors' Marking Protocol 108

Appendix C – Individual Students' Results 109

Appendix D – Separate Classes Results 116

Appendix E – Other Assessors' Results 123

Appendix F – Original Instructions for Participants 125

List of Figures

Fig. 1: Description of vowels (IPA) 25
Fig. 2: Target text for students 64
Fig. 3: Example of selected participants' evaluation 66
Fig. 4: All classes voiced / voiceless consonants 70
Fig. 5: All classes ash /æ/ and /e/ or /ʌ/ 70
Fig. 6: All classes /θ/, /ð/ and /t/ 70
Fig. 7: All classes sentence stress 70
Fig. 8: Group 1 voiced / voiceless consonants 73
Fig. 9: Group 1 ash /æ/ and /e/ or /ʌ/ 73
Fig. 10: Group 1 /θ/, /ð/ and /t/ 73
Fig. 11: Group 1 sentence stress 73
Fig. 12: Exceptional participants' results 75
Fig. 13: Group 2 voiced / voiceless consonants 77
Fig. 14: Group 2 ash /æ/ and /e/ or /ʌ/ 77
Fig. 15: Group 2 /θ/, /ð/ and /t/ 77
Fig. 16: Group 2 sentence stress 77
Fig. 17: Group 3 voiced / voiceless consonants 79
Fig. 18: Group 3 ash /æ/ and /e/ or /ʌ/ 79
Fig. 19: Group 3 /θ/, /ð/ and /t/ 79
Fig. 20: Group 3 sentence stress 79
Fig. 21: Example analysis assessors vs. researcher 81
Fig. 22: Comparative results voiced / voiceless consonants 83
Fig. 23: Comparative results ash /æ/ and /e/ or /ʌ/ 85
Fig. 24: Comparative results /θ/, /ð/ and /t/ 86
Fig. 25: Comparative results sentence stress 87
Fig. 26: Questionnaire - question 7 91
Fig. 27: Questionnaire: question 10 94

List of Tables

Tab. 1: Sounds used in the research 25
Tab. 2: Words ending in voiced / voiceless consonants used 34
Tab. 3: List of tasks 60
Tab. 4: List of participants 61
Tab. 5: Division of groups 61
Tab. 6: Questionnaire – key questions 68
Tab. 7: Questionnaire – Questions before viewing 68
Tab. 8: Questionnaire – Questions after viewing 68
Tab. 9: Group 1 questionnaire results 88
Tab. 10: Group 2 questionnaire results 88

1 Introduction

As the international pandemic emerged and distance learning suddenly became the only option for most educational institutions, many pressing questions concerning distance learning of languages arose. Since the precise and accurate pronunciation has an utmost effect on overall comprehension of an ESL learner's speech, the question of teaching it effectively during distant teaching suddenly became a very significant one.

I work as a teacher of English at a Czech secondary school and throughout my teaching practice I have always put great effort into improving my students' pronunciation, as I believe that it has an immense effect on the speakers' overall fluency and intelligibility, as well as their confidence and persuasiveness in speech. In my classes I mostly rely on the Communicative Language Teaching method and my students often get plenty of speaking time while I use procedures such as monitoring, sensitive error correction and repetition.

During the pandemic I held regular online lessons, but since it was neither possible nor recommended to have the same number of lessons as in present teaching, I also relied on students' self-study and autonomy. As the immediate and intense contact which is common during standard in-person educating process was impossible, we suddenly found ourselves in need for different options. Despite the new and uncertain situation, I wanted to help my students improve, therefore I was constantly trying to discover new and engaging ways for them to employ at home. Plenty of online sources emerged during the distance learning and most of them were of immense help – among the most popular were online quizzes applications such as Kahoot or Quizlet. The

school also provided Microsoft Office interface Teams, which proved to be a useful tool for organising online classes, gathering homework and providing contact with students.

Nevertheless, I was unable to find sufficient sources for practicing pronunciation. Usually I centre my in-person lessons around speaking as I believe that only practice makes perfect, and a major portion of my classes is focused on speaking in pairs or groups. During a typical in-person class, I am able to present examples of correct pronunciation, train it with my students, monitor their speech and correct it. Unfortunately, most of these procedures were impossible to apply during the online lessons due to the different character of online held classes, which I found ponderous and often exhausting.

Despite the technical possibilities such as using Groups in Teams, which enables the division of students into small groups, the online lessons were never the same – I missed the dynamic, the flexibility and the possibilities of in-person classes. I was also unable to present sufficient number of examples of precise pronunciation and the online lessons were of a significantly slower tempo. When teachers, who have been trained and are used to teaching in person, suddenly have to rely on everyone's (often unstable) internet connection and insufficient technical equipment, they inevitably start questioning the effectivity of novelty and uncommon ways of learning, as I later confirmed with my colleagues. Henceforth, since the online classes proved to be only a limited source of education, sources for self-study became more prominent.

One of the common ways of self-study is learning through video. I myself use videos in the ESL classroom from time to time, but I regard it as a very passive way of learning. However, videos for self-study proved to be useful during the pandemic due to their availability and possible narrowness of the topic selected. I instructed my students to watch videos made by Broňa (a teacher of English from Brno who has a popular Youtube channel) and although my students considered them useful, it was impossible to gather valid feedback on what they really learned from the videos, and to what extent.

Due to all the aforementioned reasons, the experimental research was conducted. It took place in the middle of the second outbreak of pandemic in the Czech Republic and it lasted for several months during spring 2021. The initial thought behind the research was to determine whether it is able to improve one's pronunciation only by watching educational videos without any guidance or support of a teacher. As an appropriate source material, four videos made by Mgr. Irena Hůlková, Ph.D., a teacher of English of Masaryk University's Faculty of Education, were chosen. In each of the videos, one aspect of English pronunciation that is known to be difficult for native speakers of Czech is covered. A target text containing all four features was created solely for the purpose of the research and students were asked to record themselves reading the text before viewing and after viewing the videos. The recordings were then analysed and students' progress was measured. The research started in January 2021 and finished in May 2021, after the participants submitted all the required materials.

The thesis contains two main chapters. The first chapter focuses on the theoretical description, specification, and analysis of the target issues of English pronunciation: correct pronunciation of selected sounds, voicing, and suprasegmental features of speech, namely sentence stress. The selected target sounds are the vowel "ash" /æ/ and the consonant "th" realised as the voiceless sound /θ/ or the voiced consonant /ð/. The role of two major accents, General British and General American, is briefly discussed, and the sound system of English is compared and contrasted with the Czech sound system. The importance of teaching pronunciation in an ESL environment is also touched upon, as well as on the issue of the correct terminology used.

The second chapter is dedicated to the research itself. It begins with the description of the procedure and methodology, accompanied by an analysis of the environment it took place at. The participants of the research are also commented upon. The main body of the thesis first concentrates on the analysis of the videos and the questionnaire used. The methodology, including the procedure of gathering the data, is described. Then, the results of the research are illustrated using graphs and charts, commented upon and analysed. The conclusion is supported by the analytical data collected during the research.

2 Theoretical Section

This section offers an overview and description of the theoretical basis, which is necessary in order to understand the issues covered in the Research section fully. The research focused on several features of speech of English that are known to typically pose a problem in achieving correct pronunciation for native Czech learners. The features examined are sentence stress, voicing, and the correct pronunciation of specific sounds. The sounds examined are noted down using the phonemic alphabet in accordance with the International Phonetic Association [IPA] Chart (IPA, 1999).

The first sound in question is the near-open front unrounded vowel ash /æ/ contrasted with open front unrounded vowel a /a/ and close-mid front unrounded vowel e /e/. The second and third sounds in question are the different versions of pronunciation of the dental fricative "th", which can be pronounced either as the voiceless consonant /θ/, or the voiced consonant /ð/. The study uses a comparison of minimal pairs that allows to contrast and measure the correct pronunciation of the target features.

The theoretical section heavily relies on several widely recognised pieces of literature. The first one is the eight edition of Gimson's Pronunciation of English, written by Allan Cruttenden in 2014, which is generally accepted as the "Bible" of English pronunciation studies, and serves as an exhaustive reference book. The second one is Teaching pronunciation by Marianne Celce-Murcia et al (1996). This book not only provides a comprehensive overview of pronunciation teaching techniques, but also points out various difficulties the ESL learners typically encounter during their studies. Although it deals mainly with the General American accent, it offers explanation of the

issues in English regardless the desired accent. The third one is Srovnávací fonetika angličtiny a češtiny [Comparative Phonetics of English and Czech] by Alena Skaličková, which is, even though it was published in 1974, a timeless source on the matter of the differences between Czech and English sound systems. And last but not least, the fourth one is the book English phonetics and phonology: a practical course by Peter Roach (2009) which offers simple and understandable explanation on various issues of phonetics and phonology.

The thesis is divided into two main sections: the first one is devoted to the characterization of segmental features of languages, while the second one deals with the suprasegmental ones. The significance of usage of this terminology in the research is explained and both features are thoroughly analysed. However, before the thesis proceeds to the analysis of segmental and suprasegmental features, the issue of linguistic terminology needs to be commented upon in the next chapter.

2.1.1 Terminology

In order to achieve pregnant and precise explanation of the features covered, the use of linguistic terminology has to be clarified. Some generally accepted terms in the field of linguistics are being doubted and used by various authors differently. Among those terms discussed in this chapter are the words “stress” and “accent”.

First, a definition of accent should be provided. As Roach (2009) states, “languages have different accents: they are pronounced differently by people from different geographical places, from different social classes, of different ages and different educational backgrounds. The word accent is often confused with dialect. We use the word

dialect to refer to a variety of a language which is different from others not just in pronunciation but also in such matters as vocabulary, grammar and word order. Differences of accent, on the other hand, are pronunciation differences only" (p.3). Cruttenden (2014), on the other hand, uses the word "accent" to describe "the syllable or syllables of a word which stand out from the remainder", therefore these syllables "receive an accent" (p. 241) Apparently, contrary to Roach, Cruttenden uses the word "accent" for the description of what other authors usually call "stress". However, Cruttenden provides an explanation on his resistance to use the word "stress" altogether:

> We have purposely avoided the use of the word 'stress' . . . because this word has been used in different and ambiguous ways in phonetics and linguistics. . . . Throughout this book we will avoid use of the term 'stress' altogether, using *prominence* as the general term referring to segments or syllables, *sonority* as the particular term referring to the carrying power of individual sounds and *accent* as referring to those syllables which stand out above others, either in individual words or in longer utterances (Cruttenden, 2014, pp. 24-25).

He also says that "the accentual pattern of English words is fixed, in the sense that the primary accent always falls on a particular syllable of any given word, but free, in the sense that the primary accent is not tied to any particular point of syllables constituting a word, as it is in some languages, e.g. to the penultimate syllable in Polish, to the first in Czech and to the last in French" (Cruttenden, p. 241). As opposed to Roach, he uses the word "variety" for accents such as General British or General American.

However, the majority of the authors cited in this thesis use the words "accents" and "stress" according to their traditional meaning. In conclusion, the following terms will be used for the purpose of this thesis: "accent", such as General British, for a variety of language commonly spoken in a certain country (in this case Great Britain), and "stress" as a feature of speech that allows to emphasize certain parts of words and phrases. Nevertheless, before the thesis proceeds to the issue of segmental versus suprasegmental features, it is important to mention the framework of two commonly used English accents and the interfering role they might have on the results of the research.

2.1.2 Role of accents in the research

As mentioned further in the thesis, the researcher believes that the participants of the research are, both in the ESL classroom and in their lives, under the influence of two commonly used accents – one is General British, which is being used at school, and the other one is General American (or, as Celce-Murcia et al. name it, Northern American English), with which the participants encounter through popular culture. It can be assumed that the students can be somewhat confused by the difference between the two accents and this fact could influence the results of the research. Therefore, although the preferred accent is General British, the following chapters touch upon the differences between the pronunciation of the target sounds both in General British and General American.

As most of the teachers of English are well aware of, for many years the desired accent in the ESL classroom in the Czech Republic was called RP (Received

Pronunciation). In these days, there has been a shift in the perception of RP being the ideal accent for ESL teachers. As Cruttenden (2014) states, he diverges from the term RP due to its outdatedness and aims to describe General British (GB) instead. He says that "[GB] is now indeed to be preferred, paralleling General American and its abbreviation GA" (p.80). Due to this, for the purpose of this thesis the term General British will be used as the term for the target accent and General American for the intervening one, although the reader of this thesis has to take into account that one of the crucial sources for the theoretical section of this thesis, Celce-Murcia et al.'s book on Teaching Pronunciation, uses the term NAE (North American English) for General American and will be quoted as such.

2.2 Segmental features

Since this thesis deals with the correct pronunciation of particular sounds in General British, the following section deals with the classification of these sounds. However, before the individual sounds are described and classified, it should be mentioned that sound systems in general fall into a category called segmental features. As Celce-Murcia et al. (1996) explain in their book on Teaching Pronunciation, "one of the characteristic features of the sound system of any language is its inventory of sounds – that is, the particular combination of consonants and vowels that make up the inventory. In fact, all languages are somewhat distinctive in their vowel and consonant inventories, and in the way that these components combine to form words and utterances. Linguists refer to this inventory of vowels and consonants as the segmental aspects of

language" (p. 35). Also, segments are the individual sounds that can be transcribed by the symbols in the International Phonetic Alphabet. Segments tend to influence each other in pronunciation, depending on the position of individual sounds. Clusters of segments form syllables.

The research focuses on the correct pronunciation of the sound system of General British being taught to native speakers of Czech language in an ESL environment. Since the segmental features that are measured during the research differ significantly from the segmental features of the Czech language, the following chapter is devoted to a comparison of English and Czech sound systems, with brief notion of potential differences in General American accent that later possibly interferes in the results of the research.

2.2.1 Sounds used

Before the individual target sounds are discussed, a brief classification of English and Czech sounds should be included. As will be further shown, some authors use different symbols for particular sounds, and some sounds differ in pronunciation in General British and General American. In order to avoid confusion, the author of this thesis sticks to following symbols as represented in the IPA Phonetic Chart.

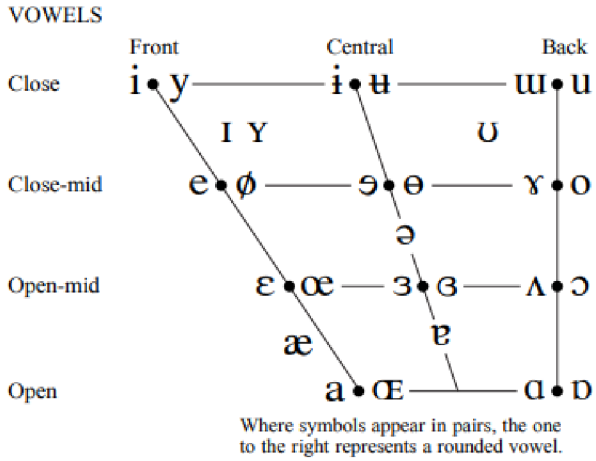


Fig. 1: Description of vowels (IPA)

In the picture above, a common recognised vowel system is depicted. As Roach (2009) explains, there are two types of vowels: "so called primary cardinal vowels; these are the vowels that are most familiar to the speakers of most European languages, and there are other cardinal vowels (secondary cardinal vowels) that sound less familiar" (p. 12). In the research, the secondary cardinal vowel /æ/ is examined and put in contrast with the primary cardinal vowel /e/ and the secondary cardinal vowel /ʌ/.

For further clarification, the following table shows solely the individual symbols and corresponding sounds this thesis uses and is focused on.

Tab. 1: Sounds used in the research

Classification	IPA	Words used
near-open front unrounded vowel	æ	sad, dad, had, cap, cat
open-mid back unrounded vowel	ʌ	cup, cut
close-mid front unrounded vowel	e	said, dead, head
voiceless dental fricative (consonant)	θ	three, thick
voiced dental fricative (consonant)	ð	they

2.2.2 Vowel: ash /æ/

The first sound in concern that is practiced in Hůlková's video "Slavné otevřené /æ/ v angličtině! Aneb BAT není BET ani BUT a DAD není DEAD!" [Famous open /æ/ in English! I.e., BAT is neither BET nor BUT and DAD is not DEAD!] is the sound commonly known among linguists as the "ash" sound. The research examines the following words with the desired pronunciation of /æ/: "sad", "dad" and "had" as opposed to /e/ in "said", "dead" and "head"; and in "cap" and "cat" as opposed to /ʌ/ in "cup" and "cut". The ash sound represents a near-open front unrounded vowel and since it does not exist in the Czech vowel system, it is a typical source of problems and misunderstandings in the ESL classroom. The sound "ash" often crucially distinguishes words with different meaning and therefore its flawless pronunciation is essential for the speakers' overall intelligibility. Consider the notorious mistake learners tend to make in the minimal pair of the singular word "man" and its plural "men". By most pre-intermediate students, both words would be pronounced as homophone /men/.

For many years, the symbol that has been used to describe this particular sound was /æ/. However, Cruttenden opened a debate over the correctness of the usage of this symbol which the researcher considers important to mention. In his eight edition of Gimson's Pronunciation of English, Cruttenden (2014) notes that he has made "substantial transcriptional alterations: [among others], /æ/ has been changed to /a/". He claims that "this change is long overdue in transcriptions of English. The symbol /æ/ has always been an oddity even in the IPA alphabet: nowhere else is there a separate symbol for a value intermediate between two Cardinal Vowels (showing an English

bias – the symbol dates from Old English). Moreover, the value of this vowel in current GB is much closer to Cardinal [a] than it was fifty years ago" (p. xvii in Foreword to the Eight Edition). Cruttenden describes the sound ash as a reduced [a] which is derived from the pure vowel /a/. He lists following words as examples: "bat", "cap", "back", and "batch". He also encourages to compare /e/ and /a/ in the minimal pairs "said" versus "sad", "bed" versus "bad" and "beg" versus "bag" (p. 119). He says that "this traditionally short vowel is now generally longer in GB than the other short vowels /ɪ,e,ʌ,ɒ,ʊ/. Such lengthening is particularly apparent before voiced consonants, e.g., in *cab*, *bad*, *bag*, (…)" (p. 120).

However, other authors, such as Celce-Murcia et al., Roach, Skaličková and Krčmová continue in the usage of the traditional symbol /æ/. In accordance with these experts, the author of this thesis will use this symbol as well. That being said, some following sections of this thesis where Cruttenden is citated respect his usage of the symbol /a/ instead of /æ/. The reader of this thesis should be aware of this issue.

To further move on, Skaličková (1974) describes that the issue with the correct pronunciation of /æ/ amongst native speakers of Czech derives from the fact that in Czech, only five basic vowel areas (a, e, i, o, u) exist, while in English each area is realised by more than one phoneme. In this case, Czech /e/ can be realised either as /e/, or as /æ/ in English. She points out that since the Czech vowel system contains only one /e/ phoneme, it is of crucial importance for Czech speakers to focus on the different qualities of English /e/ and /æ/ and to abide by this difference.

Skaličová also puts into contrast the English /æ/ with the Czech /é/. She claims that these two sounds differ in three aspects. The first aspect discussed is articulation, since English /æ/ is significantly more open than Czech /é/. The second aspect discussed is the quality of the sound: she mentions that English /æ/ sounds lower than Czech /é/. The third aspect is the length of those vowels: while Czech /é/ is always long, the English /æ/ is either long or semi-long (in case it appears before voiced consonant), or short (in case it appears before voiceless consonant). What Skaličková also mentions is the difference in typical distribution of these sounds in a word. As Roach (2009) explains, there can be three kinds of distribution of sounds: they "can occur at the beginning of a word (initial position), between other sounds (medial position) and at the end of a word (final position)" (p. 26). Skaličková says that while English /æ/ typically appears in the initial or medial positions in a word and never in the final ones, the Czech /é/ is rarely found in the initial position, but more often in the medial or final positions.

When it comes to the issue of teaching this sound to ESL learners, the problems commonly addressed always relate to the fact that this sound does not exist in other vowel systems. As Celce-Murcia et al. (1996) point out in their Note to Teachers, "the production of the low central vowel /ɑ/ does not generally tend to be problematic for speakers learning NAE. However, it is a frequent substitute for the low front vowel /æ/, which does not occur in the first language of many learners" (p. 98). She also takes the differences between GB and GA into the consideration: "Many learners who have previously studied British English will also have difficulty with NAE /æ/ since it occurs in

many words where the British produce /ɑ/. Some common examples are *class*, *fast*, *chance* and *passed"* (p. 98). Cruttenden (2014) agrees on this disparity and adds that "the main difference of lexical occurrence concerns words which in GB have /ɑ:/ while in GA they have /a/. . . . This commonly involves the context of a following voiceless fricative, or alternatively a nasal followed by another consonant thus GB /pɑ:st/~GA /past/, GB /ɑ:ftə/~GA /aftər/, GB /plɑ:nt/~GA /plant/" (p. 87). In his advice to foreign learners, Cruttenden states that "the main difficulty for all those whose own languages have a less complex vowel system than English lies in the establishment of the qualitative oppositions /ɪ/-/e/-/a/-/ʌ/. The opposition /e/-/a/ may be emphasised by making use of the length component of GB /a/ in certain contexts, e.g. in *men*, *man*; *bed*, *bad*" (p. 121).

2.2.3 Vowels: e /e/ and a /ʌ/

Since the research uses several words with the desired pronunciation of /e/ and /ʌ/ as means of comparison with /æ/, it is necessary to present a short classification of these vowels as well. The words used in the research are "said", "dead" and "head" for the vowel /e/, and "cup" and "cut" for the vowel /ʌ/. However, since these sounds commonly do not pose a pronunciation problem for native Czech speakers, the description will not go to such lengths as with the previously discussed sound /æ/.

As to the short GB /e/, it is a close-mid back unrounded vowel. As has been previously mentioned, it belongs to the Cardinal vowels and its spelling derives from the letter e such as in "bed", "desk", "elm" and "else". The other vowel used is the open-mid

front unrounded vowel /ʌ/. The target spelling of /ʌ/ used in the research derive from the letter u such as in “bulb”, “bulge”, “bun” and “cut”. (Cruttenden, 2014)

Skaličková (1974) mentions that there is a minor articulatory difference between Czech /e/ and English /e/ and concludes that the characteristics of English /e/ corresponds closely to the Czech one. She states similar minor difference in the articulation of Czech /a/ and English /ʌ/ and points out that the auditory difference is also of minor importance. As to the distribution of these two vowels, English /ʌ/ appears only in the initial and mid position, but never in the final one, unlike the Czech /a/ can be found in all of those. Interestingly, Skaličková concludes that it could be said that Czech speakers can use their /a/ in English interchangeably. However, the influence of neighbouring consonants has to be considered, therefore it is unlikely for two absolutely identical sounds to exist in different languages.

2.2.4 Consonant: th /θ, ð/

Apart from the aforementioned vowels, the two consonant the research is focused on are covered in the next video from Hůlková, which is called “Dvě velmi známé souhlásky v angličtině, v kterých se často chybuje! Aneb jak na výslovnost "TH"!” [Two famous English consonants that are often misspelled! Or how to pronounce “TH”!]. The following chapter is thus focused on the description of two consonants /θ/ and /ð/ that are derived from the alphabetical diphthong “th”.

These two consonants are characterised as dental fricatives. As Roach (2009) explains, “fricatives are consonants with the characteristic that air escapes through a narrow passage and makes a hissing sound” (p. 39). Cruttenden (2014) adds that “in the

articulation of a fricative consonant, two organs are brought and held sufficiently close together for the escaping airstream to produce local air turbulence; fricatives are, therefore, like plosives and affricates, characterised by a noise component. This turbulence may or may not be accompanied by voice. . . . The GB fricative phonemes comprise four pairs /f,v/, /θ, ð/, /s,z/, /ʃ,ʒ/ and /h/" (p. 192).

The characterisation "dental" relates to the place of articulation and means that "the tongue tip and rims articulate with the upper teeth, e.g. [θ, ð], as in *think* and *then*". (Roach 2009, p. 39) The one quality that distinguishes these two sounds is the manner of voice, as the dental fricative "th" can be either pronounced as the voiceless consonant /θ/ or as the voiced consonant /ð/.

For Czech learners of English, it is often difficult to master the correct pronunciation of these sounds, since (similarly to the "ash" sound) corresponding sounds do not exist in Czech. As Skaličková (1974) points out, even in certain English dialects (she mentions the one which was spoken in London at the time her book was published) are these sounds substituted by different sounds such as /f/ and /v/. However, these are not the only sounds that are commonly misspoken instead of the target dental fricatives. In his advice to foreign learners, Cruttenden (2014) proposes that "most learners will have an L1 which does not have /θ, ð/ . . . and will usually replace them with /t,d/. If aiming at GB, such pronunciations are to be avoided it at all possible. In particular, those words with / ð/ which are normally unaccented, e.g., *the, than, they,* etc. should not be pronounced with /d/. The difficulty of /θ, ð/ lies not so much in their

articulation, which most learners can perform correctly in isolation, as in their combination with other fricatives, especially /s/ and /z/" (p. 200).

When it comes to teaching these two sounds, Roach (2009) notes that "the dental fricatives are sometimes described as if the tongue were placed between the front teeth, and it is common for teachers to make their students do this when they are trying to teach them to make this sound" (p. 40). This practice is, according to the researcher's own teaching experience, commonly used, and is also employed by Hůlková in her educational video.

The research uses two words that contain the sound /θ/ and act as a means of measurement for the desired pronunciation. These words are "three" and "thick" as opposed to their minimal pairs that contain /t/, "tree" and "tick". The only word which contains the sound /ð/ that the research uses is "they" as opposed to /d/ in "day".

2.2.5 Voicing

The last segmental issue examined in the research is voicing. The video from Hůlková which addresses and intends to teach this subject is called "Pozor na znělé souhlásky na konci anglických slov! Aneb záda nejsou taška a čepice není taxík :)" [Beware of voiced consonants at the end of English words! I.e., back is not a bag and a cap is not a cab.] Voicing is, in general, a phenomenon that characterises consonants. As Roach (2009) states, "if the vocal folds vibrate, we will hear the sound that we call voicing or phonation" (p. 25). Consonants are, in the field of linguistics, commonly divided into two groups: voiced consonants and voiceless consonants. Cruttenden (2014) proves this statement by saying that "at any place of articulation, a consonantal articulation

may involve the vibration of the vocal chords, i.e., may be voiceless or voiced" (p. 29). For the purpose of this thesis, only these sounds that are of immediate interest are mentioned, therefore the voiced consonants this thesis is interested in are /d/ and /v/ and their voiceless opposites /t/ and /f/.

There has been a debate whether the division of consonants to voiced and voiceless is precise and as Cruttenden (2014) states in his description of typically voiced sounds /b,d,g/, it also depends on the position of the sound in the particular word: "in initial and especially in final positions, i.e. following or preceding silence, /b,d,g/, while remaining lenis, may be only partially voiced or completely voiceless, e.g., in *bill*, *done*, *game*, *cub*, *lid*, *bag*" (p. 164). Skaličková (1974) specifies that the position of consonants in a word has to be taken into account especially when Czech and English consonants are being compared. She explains that the main difference between English and Czech consonants is the existence of the basic opposition in which the paired consonants stand again each other in a given language. The opposition between paired consonants in Czech is primarily determined by the contrast of voice: one of the sounds in the pair is voiced, the other one is voiceless such as in /b/ versus /p/, or /d/ versus /t/. In English, the opposition of paired consonants has a significantly different character, although it has often been referred to as the opposition of voicing, and sometimes explained as the opposition of articulatory force (fortis-lenis) (Skaličková, 1974).

As mentioned in the previous citations, fortis and lenis are other technical terms that are important in the field of phonetics and phonology. These terms are used to describe the difference between consonants according to the articulatory force. That

being said, as Roach (2009) points out, "force of articulation is very difficult to define and measure" (p. 28). For the purpose of this thesis, a simplification of the manner can be made since it is of little effect on the research itself. Therefore, a division of consonants to voiced and voiceless will be further used in accordance with the Hůlková's video, and with some of the literature previously mentioned. Below is the list of minimal pairs of words that end with voiced or voiceless consonants, and were used during the research.

Tab. 2: Words ending in voiced / voiceless consonants used

Voiced	Voiceless
bad	bat
bed	bet
had	hat
sad	sat
save	safe
god	got

In some languages, though, (and Czech is one of these), there exists a phenomenon that needs to be mentioned in order to further establish the difference between Czech and English pronunciation. This phenomenon is called final obstruent devoicing. As Brockhaus (1992) states in her diploma thesis on final devoicing, it is a phonological process which got incorporated into the grammars of some languages, but not others, and in some cases (for example in English) existed in the language in the past, but has diminished. She states about this phenomenon that "there is a sizeable group of other languages all over the world where the loss of voicing is magnified to such an extent that native speakers typically perceive a final obstruent as phonologically voiceless. . .

. The phonological event which consists in this loss of voicing is most frequently referred to as final devoicing" (p. 17). She also presents an example in German: "It is not possible for, say, German hearers to reliably distinguish the noun Bund ([bunt], 'league') from the adjective bunt ([bunt], 'colourful') when the two are spoken in isolation" (Brockhaus, 1992, p.17).

Hůlková covers this difference between English and Czech in her video when she compares and contrasts the possible pronunciation of Czech devoiced words "kov", "dub" and "led" by a common native speaker of English (as will be further analysed in the description of the video later in this thesis). This brings us to the matter of the video itself since it is dedicated to common incorrect pronunciation of voiced final consonants of Czech students since they often tend to incorrectly devoice them. As a result, it is often impossible to recognize the difference between such words as "bag" and "back" where students often devoice the final /g/ and pronounce both words as a homophone/bæk/. The reason for this might be that, as Skaličková (1974) states, in English, a consonant in the final position is mainly characterised by the quality of the preceding vowel, which is shortened before fortis and lengthened before lenis. This phenomenon of consonants influencing the preceding vowel is not present in Czech language and, therefore, impedes the achievement of correct English pronunciation.

Interestingly, Cruttenden (2014) defines the difference between voiced and voiceless sound ash as a contrast between long variant [a:] such as in "bad" and "cab" versus reduced [a] in "bat" and "cap" (p. 119). In the organizational note on the description of vowels, he specifies that for each vowel, he uses "examples of words illustrating the

main allophonic variants. Such variation concerns principally length variations occasioned by the shortening of vowels before voiceless consonants; a feature which is most obviously apparent in long vowels and diphthongs (p. 110)". He omits the division on voicing, and concentrates on length of vowels. This (among other aforementioned issues) proves that in the literature on pronunciation, the establishment of unambiguous terminology is yet to be achieved.

2.3 Suprasegmental features

This part of the thesis deals with these elements of languages that go beyond the basic analysis of sounds. As Celce-Murcia et al. (1994) say, "in addition to having their own inventory of vowels and consonants, languages also have unique features that transcend the segmental level. These suprasegmental features involve those phenomena that extend over more than one sound segment" (p. 35). In the Handbook of IPA (1999), it is stated that "in addition to the segments, a number of 'suprasegmental' aspects of speech, such as stress and tone, need to be represented independently of the segments" (p. 13). In some pieces of literature, these features are called prosodic phonology or prosody.

There are many widely recognised suprasegmental features of speech such as intonation, rhythm, stress and connected speech, to name a few. To further understand the notion of suprasegmentals, Roach (2009) demonstrates it on the issue of word stress: "many significant sound contrasts are not the result of differences between phonemes. For example, stress is important: when the word 'import' is pronounced with

the first syllable sounding stronger than the second, English speakers hear it as a noun, whereas when the second syllable is stronger the word is heard as a verb. . . . These examples show sound contrasts that extend over several segments (phonemes), and such contrasts are called suprasegmental" (p. 36).

Suprasegmental features are, in general, of utmost importance in the ESL environment. According to Celce-Murcia et al. (1996), "many pronunciation teachers would claim that a learner's command of segmental features is less critical to communicative competence than a command of suprasegmental features, since the suprasegmentals carry more of the overall meaning load than do the segmentals" (p. 131). Scrivener (2011) in his book "Learning Teaching", which is an essential guide for language teachers, agrees that using the stress in an English utterance is a key aspect for intelligibility since "getting the stress wrong can seriously damage your chances of being understood" (p. 277). However, Wang (2022), in his article on the importance of segmental versus suprasegmental features in the ESL environment, claims that "it is important for teachers not to be constrained by the segmental/suprasegmental dichotomy but to be aware of and take advantage of the interactive relationship between the two. Teachers may help students to analyse their pronunciation features and conceptualize the interaction between segmental and suprasegmental features from the perspectives of both the speaker and the listener". It can therefore be concluded that pronunciation teaching should not omit any of the discussed features, and rather aim at regarding the language system as a whole.

As a result, one of the four features of speech the research examines is sentence stress, as it crucially affects the learners' overall intelligibility. Therefore, the following chapter focuses almost exclusively on this suprasegmental feature and only touches upon some others.

2.3.1 Sentence stress

Stress, in general, is essential in pronunciation. As we have seen in the chapter on Terminology, the term "stress" is, however, widely used by many authors, and forsaken by others. Despite the previous debate concerning the word "stress", for the purpose of the research the terms "stress" and "sentence stress" will be used in accordance with the Hůlková's video. This chapter is devoted to the analysis of sentence stress and thus, to begin with an explanation, Celce-Murcia et al. (1996) define it like this: "we use the term sentence stress to refer to the various stressed elements of each sentence" (p. 151). Nevertheless, since the notion of sentence stress derives directly from the notion of word stress, the latter should be specified as well.

As stated in the IPA Handbook (1999), "English has a very strong distinction between stressed and unstressed syllables, with stressed syllables being longer, louder, and often marked by a pitch excursion" (p. 43) Although (as have been previously shown) Cruttenden (2014) uses the term "accent" instead of the term "stress", he describes similar suprasegmental features and declares that "any of four factors, pitch, loudness, quality and quantity, may help to render a syllable more prominent than its neighbours. But it is principally pitch change which marks an accented syllable" (p. 242). It can be therefore summarised that Cruttenden defines word stress (or accent,

in his words) as a relationship between syllables that are either stressed or unstressed (or weak and strong, depending on the terminology) which, together, form a stress pattern. However, when he discusses sentence stress, he begins with the definition of the concept of connected speech, and states that connected speech is "an utterance consisting of more than one word, [and] exhibits features of accentuation that are in many ways comparable with those found in polysyllabic words" (p. 270). He then proceeds to the division of words into two groups: lexical and functional, and adds that "some words are predisposed by their function in the language to be accented" (p. 270). He lists that the commonly accented lexical words "are typically main verbs, adverbs, nouns, adjectives and demonstrative pronouns", while function words such as "auxiliary verbs, conjunctions, prepositions, pronouns, relative pronouns and articles are more likely to be unaccented" (Cruttenden, 2014, p. 270). Celce-Murcia et al. (1996) use the terms content words (i.e., words that carry information) and function words (i.e., words that signify grammatical relationships) instead.

In Hůlková's video on sentence stress, she also points out the utmost importance of the existence of lexical versus functional words in the English language and its influence on sentence stress. The title of the video is "Větný přízvuk v angličtině aneb jízda na horské dráze!" [Sentence stress in English: a roller-coaster ride!] and its content is further described and analysed later in the thesis. However, sentence stress certainly cannot be defined solely on the basis of division of words on lexical and functional ones, but more importantly on the intention of the individual speaker. Or, as Celce-Murcia et al. (1994) put it, "in fact, the discourse context generally influences which stressed

word in a given utterance receives prominence – that is, which word the speaker wishes to highlight" (p. 176). The issue of prominence, or speakers' intentions, is, however, of no importance in Hůlková's video, therefore will not be discussed further in this thesis.

That being said, it could be of interest that again, various authors use the term "prominence" differently. For example, Scrivener (2011) proves the immense importance of sentence stress, but states that "although individual words have their own stress, stress is also an important feature of sentences, when it is known as prominence or, less accurately, sentence stress" (p. 278).

Should the debate be moved further on to the issue of teaching the correct sentence stress in pronunciation, it needs to be mentioned that, similarly to other pronunciation issues, this suprasegmental feature differs significantly in Czech and in English language. As Krčmová (2010) explains, Czech system of stress is fixed, which means that in a word or an utterance, the stressed syllable is always the first one. On the contrary, stress in English is lexical, which means it can be on practically any syllable in the word or utterance and therefore can be unpredictable. Thus, in the environment of an ESL classroom, "it is a major priority in the pronunciation classroom to explain and illustrate for students the stress-timed nature and rhythm of English. When learners (particularly those whose first language is syllable-timed) obscure the distinction between stressed and unstressed syllables in English, native speakers may either fail to comprehend or they may grow impatient at the lack of selective stress on key words."

(Celce-Murcia et al., 1994, p. 154). It is also pointed out that the incorrect usage of stress among ESL learners can hinder native speakers' comprehension.

To conclude this chapter on sentence stress, following is Celce-Murcia et al.'s poetic summary of stresses compares the stress system of a language with music:

> Word and sentence stress combine to create the rhythm of an English utterance – that is, the regular, patterned beat of stressed and unstressed syllables and pauses. This rhythmic pattern is similar to the rhythm of a musical phrase. Just as in music, English moves in regular, rhythmic beats from stress to stress – no matter how many unstressed syllables fall in between. This stress-timed nature of English means that the length of an utterance depends not on the number of syllables (as it would in a syllable-timed language such as Spanish or Japanese) but rather on the number of stresses (Celce-Murcia et al., 1994, p.152).

2.4 Teaching pronunciation

As the thesis and the experimental research revolves around the initial issue of teaching pronunciation, the following section will touch upon the topic of the importance of pronunciation instructions in the ESL classroom environment.

Pronunciation, although present in the form of various exercises in every textbook of sufficient quality, is often omitted by teachers of English and regarded as of less importance. Perhaps, teachers are too busy devoting their time to teaching grammar, vocabulary, and four skills of language. Another reason might be, as Langrová (2012) states in her diploma thesis on Stress and Intelligibility, that students tend to omit

studying pronunciation because they do not perceive it as crucial for their overall communicative ability. On the other hand, according to Scrivener (2011) teachers themselves might overlook the area of pronunciation since they are uncertain of their own abilities. He therefore encourages teachers to employ pronunciation instructions in their teaching practice despite their doubts as the results are often surprisingly entertaining, as well as useful.

Most authors agree on the importance of teaching pronunciation in the classroom. With teaching a foreign language comes great responsibility, and many non-native teachers struggle with the question whether their own language skills pose a sufficient example. In the chapter on the exposure to the target language, Celce-Murcia et al. (1996) argue that learners "must receive large amounts of comprehensible input before they are required to speak. If true, learners' exposure to the target language will be a critical factor in determining their success. In EFL learning, especially those where students have little opportunity to surround themselves with native input in the target language, the burden will fall more on the teacher to provide an adequate model of the target language" (p. 17). The importance of the teachers' proficiency in target language is imminent, but, since the exposure to the native input is becoming more and more common and sources outside the classroom are more available (due to the aforementioned Extramural English), it certainly needs not to be an obstruction in one's teaching practice.

When it comes to achieving perfection in pronunciation, there are plenty of strategies to employ. Sauer (2020), in his message to the students, advices three key

elements. First, he emphasizes the importance of "careful listening. An accurate ear for the fine points in English speech is indispensable to anyone wishing to speak the language with a good accent" (p. 9). His second advice goes to achieving an "accurate reproduction. In imitating native English speakers, you should aim at closest approximation to what you hear" (p. 9). He also points out that students should aim at achieving perfection and should not be satisfied with accomplishing only the minimal level of intelligibility. Last but not least, he mentions the importance of "intelligent practice. . . . Repeated practice (drilling) of the sounds in context will help you to habitualize [sic!] their production in a way that makes them appear correct and spontaneous" (p. 9). Repetition and drills seem to be of prominence amongst common pronunciation practice. As Celce-Murcia et al. (1996) inform, among four traditionally used techniques in the Communicative Approach (which, as stated before, the researcher praises) is the minimal pair drill, which is "a technique introduced during the Audiolingual era to help students distinguish between similar and problematic sounds in the target language through listening discrimination and spoken practice" (p. 8). This technique is used both in the Hůlková's videos and as a means for comparison in the research.

Last but not least, the pressure on teachers can be lifted by the attitude Cruttenden (2014) introduces. He implies that intelligibility should be more important than precision and that "teachers and learners of English must remember that communication does not depend on the perfect production and reception of every single element of speech. To insist, for instance, on exaggeratedly clear articulation for clarity goes beyond the requirements of speech as a means of communication" (p. 5-6).

Communication, as a result, should be the target goal of a language teacher, and correct pronunciation is a significant means of achieving this goal.

3 Research Section

The aim of the research was to determine whether students are able to improve their pronunciation of specific features by self-study. Since the students' performance was measured on a set of recordings, this chapter offers an overview of the chosen method and the description of a step-by-step instructions given to both students and evaluators. At the beginning of the experimental research, research questions, research hypotheses, and objectives were stated, and are also further commented upon in this chapter. Furthermore, a role of more than assessor is also discussed, and example results are displayed, compared and analysed. This section also offers an overview of the data collecting methods, as well as the ICT tools used. This section than proceeds to the presentation of the results of the research. The results of the research are enumerated, visualised in graphs and tables, and thoroughly analysed. The research was also complemented by the questionnaire study, which is later commented upon as well. The last chapter is dedicated to Discussion which includes overall results and comparison of the findings made. The research limitations are also discussed and ideas for further research are presented.

3.1 Methodology

For the purpose of the research, a quantitative experiment was conducted. As Creswell (2014) states in his book on Research Design, "experimental research seeks to determine if a specific treatment influences an outcome. The researcher assesses this by providing a specific treatment to one group and withholding it from another and

then determining how both groups scored on an outcome" (p. 13). Creswell also mentions the importance of defining dependent and independent variables: "one independent variable must be the treatment variable. One or more groups receive the experimental manipulation, or treatment, from the researcher" (p. 169) The treatment is, in this case, active watching of the four selected educational videos. The three groups of students established were treated differently in order to determine a score. On the contrary, the "dependent variables are those that depend on the independent variables; they are the outcomes or results of the influence of the independent variables" (p. 52). The outcomes are therefore the results in the Research section.

There is one more aspect that needs to be also taken into the consideration since the participants were, during the course of the research experiment, spending plenty of time at home (due to the covid situation in the Czech Republic) being subjected to popular culture and other sources in English. As a result, the participants were naturally exposed to various media in English that undeniably affected their own language abilities. This notion of English acquired outside classes is called Extramural English. As Reimerová (2022) states in her diploma thesis on this topic, Extramural English "can play an essential role in the acquisition of English" and further specifies that "the teachers concur that Extramural English is a regular part of their students' daily lives nowadays, unlike in the past, mainly because of the expansion of modern technologies" (p. 31). Variables such as Extramural English that the researcher had no influence on are (in the field of research design) called intervening variables. As Creswell (2014) specifies, they "stand between the independent and dependent variables, and they

mediate the effects of the independent variable on the dependent variable" (p. 52). In this case, the intervening variables comprised of (as the researcher has been told by the participants) for example watching various films and TV shows, listening to music and podcasts, and playing video games. Despite the fact that these intervening variables are unmeasurable and hypothetical, they can have an immense effect on the results of the research.

Given the specific sample of the participants, the type of the experiment is called quasi-experiment. According to Creswell, "in many experiments . . . only a convenience sample is possible because the investigator must use naturally formed groups (e.g., a classroom, an organization, a family unit) or volunteers. When individuals are not randomly assigned, the procedure is called a quasi-experiment" (p. 168). In this case, the participants belonged to particular classes at a high school.

The input data comprised of 2 sets of recordings and the Questionnaire (Questionnaire 1 – see the Research section). The recordings are not enclosed in order to achieve a complete confidentiality of the participants, although they are in the researcher's possession and available at request. An evaluation based on a scale of points from 1 to 10 was chosen as an appropriate method of enumeration of the results, since the research focused on specific features of speech, therefore each of the features was graded separately. The enumerated data were then gathered and analysed in MS Excel sheets.

As to the evaluation method chosen, Nic Underhill's book on Testing Spoken Language (Underhill, 1987) provided useful theoretical basis. In his work, Underhill discusses various issues of different types and approaches on oral testing. He comments

upon the advantages and disadvantages of the use of recordings in testing. He states that one of the advantages of recorded tests are convenience since "the marking does not have to be done in real time, . . . it can be done where and when convenient, in comfort, with the facility to replay any part of the tape if desired" (p. 35). This aspect of oral recording proved to be very advantageous since the marking itself was lengthy. The disadvantages, according to Underhill, are for example the problem of authenticity, as well as the possible occurrence of technical difficulties that "can lead to poor quality recordings" (p. 35). Another problem might be that "some people are afraid of speaking into a microphone" (p. 36), therefore the speakers' overall impression could have been affected by their nervousness.

Underhill (1987) also dedicated one chapter of his book on testing to the types of elicitation techniques including reading aloud. Again, among the disadvantages connected to this technique is the authenticity. According to Underhill, "we rarely read a text passage aloud in foreign language, and never read a written conversation aloud. Neither are they communicative; nobody is saying anything new to anyone else" (p. 76). He also states that reading aloud is a skill incomparable to any other and can be trained, and among the variables that can substantially affect the results is the participants' level of English. He says that "good performance depends to a large extend on reading skills. This will clearly be important if the learners are likely to have differing degrees of literacy in the foreign language" (p. 76). It can be said that this method chosen for the experimental research has its limitations since the participants' English skills are of various quality. On the other hand, there are some advantages to the

method chosen. The first one is that the desired language sample can be specified and "precisely the language that is wanted can be generated" (p. 76). This applies to the experimental research as well, since the method of reading a text allowed to incorporate the target features measured. The second advantage Underhill mentions is the standardisation of the results which provide "greater comparability for the purposes of the assessment and greater reliability of scores" (p. 76). Last but not least, the instructions are comprehensible and there is little confusion on the participants' side in terms of the task. As Underhill wraps it, "these techniques are simple to administer and quick to mark" (p. 76).

3.1.1 Research objectives

The aim of the research is to determine whether those students' pronunciation of selected features who were subjected to Hůlková's educational videos would improve compared to those who did not watch them. As Creswell (2014) notes, quantitative research questions seek the relationships among variables, and enumerates them.

Based on the aim of the research as well as the theoretical framework, the research questions are stated as such:

1. Is repeated watching beneficial, or does it suffice to watch the source material just once?
2. Will the students' pronunciation after watching the videos improve compared to the group that did not watch any, and if, how much?
3. How does the students' general motivation to study affect the results?

3.1.2 Hypotheses

Each quantitative research design should contain hypotheses. According to Creswell (2014), such quantitative hypotheses allow the researcher to predict the outcomes of the research. Based on the presumption that repeated watching of educational videos indeed is beneficial, my hypotheses therefore are:

1. Groups who watched the videos will improve their pronunciation of target features of speech.
2. Groups who watched the videos three times will improve their pronunciation more than Classes that watched them only once.
3. Groups who were not subjected to watching the videos will improve as well due to intervening variables, but only to a small extend.
4. Groups who watched the videos will improve the score in the questionnaire survey.
5. The outcomes will be measurable based on the relatively large sample of 49 participants.

My presumptions are that those students who watched the videos 3 times will be significantly and measurably better in the outcomes. Those who did not watch the video might slightly improve as well, since (as I have been told) they were subjected to intervening variables such as watching various streaming services (namely Netflix and HBO) during the pandemic, and many other sources in English (as previously discussed). Also, some of the target features come directly from Hůlková's videos (for example the sentence "What are you having for lunch?"). I anticipate that the presence

of these specific words and phrases will help students achieve better results since they will have the chance to practice them directly. I also presume that repeated watching will positively affect the participants' motivation to improve.

3.2 Research setup

In this chapter, the environment the experimental research took place is commented upon, and a brief characterization of the participants is included.

3.2.1 School

The school where the research was realised is a private secondary school Obchodní akademie Eldo, o.p.s. in Brno. The school provides four four-year study programmes that finish with the state school-leaving Maturita exam. Three of the programmes focus on economy and management, preparing students for future employment in business. The fourth one provides education in the field of pedagogy for students interested in teaching, primarily preparing them for working in kindergartens, or for subsequent university studies. There are approximately 350 students from age 15 to 19. For English lessons, classes are divided in halves resulting in groups of 10 to 15 students. Students are divided into groups in their first year according to their level of English on the basis of a placement test. When the research took place, there were four teachers of English employed, all of them of Czech origin (one being the author of this thesis, currently working on this school for her fourth school year). There are no native speakers of English employed. The curriculum contains three or four forty-five-minutes English lessons per week depending on the year of study. The school also offers extra-

curricular seminars – one is focused on preparation for the Maturita exam, the other prepares students who are interested in taking the Cambridge exams (PET or FCE). Both seminars are voluntary and are realised once a week in the afternoon.

3.2.2 Students

Generally, students at Eldo come from various environment and family background, and their motivation to study and improve is often affected by other priorities and occupations such as active sports careers. Common situation in classrooms often differs from what teachers usually experience on state secondary schools. Specifically, teachers of English often struggle with the level of students' initial skills that can range from A0 to B1 (an estimate based on four years of experience and results of aforementioned placement test). The reason for this might be (as the teachers guess) that the students often did not experience the feeling of success on their primary schools, or did not receive appropriate education on primary schools. The effect of unsupportive family background can also be perceived on some of the students. Amongst other problems the teachers are dealing with, the students' low attendance and problematic behaviour proved to be the most difficult to tackle.

As to the English language classes, the preferred and target accent is General British and the English File is being used as the main textbook. The textbook English File is published by Oxford University Press and offers a suitable example both in the range of British vocabulary and in pronunciation since the recordings provided use the General British. Despite this fact, students tend to struggle with the British accent (mainly due to their frequent contact with American accents through popular culture) and they

regard General British as incomprehensible or difficult to follow. The researcher believes that the influence of General American affects the results of the research since students often find the General British pronunciation challenging and unattainable, especially during the listening exercises.

During the course of the research, all participants were active students of the researcher's English classes. Such selection and organization of the research allowed the researcher an immediate contact with the participants which was crucial given the pandemic situation. It was often needed to provide further explanation and support in order to ensure smooth administration of the research. In the time of the research, regular online classes were held two or three times per week. To achieve objectivity, it was ensured that throughout the research the students were not subjected to any explanation of target pronunciation issues in the researcher's classes. Students from all years and of all estimated English levels were chosen for this research in the pursuance of accurate and equitable results.

3.3 Hůlková's videos

At the beginning of the preparation for this thesis, a convenient and accessible source material was required in order to allow students to learn and improve at their homes during the pandemic. Therefore, the educational videos made by Mrs Irena Hůlková were chosen and employed.

Mgr. Irena Hůlková, Ph.D. is a teacher of English and an Assistant professor at the Department of English Language and Literature at Masaryk university, Pedagogical

Faculty. Amongst her many specializations are Phonetics and Phonology. As she claims in an annotation for her Open Space Conference 2022 presentation, she started a Youtube channel in December 2019, "whose main goal was to spread awareness of English pronunciation among ordinary English speakers and to connect academics with the general public" (Hůlková, 2022). As the first covid wave stroke in the Czech Republic in March 2021, the channel not only educated the public Youtube users, but also provided a crucial source material for her first-year university students of the course on phonetics and phonology.

Hůlková's videos were chosen for their approachability and understandability, as well as for being well-defined and straightforward. She provides the explanation in Czech, which is convenient for self-education of students of pre-intermediate levels. In her video lessons, Mrs Hůlková focuses on variety of issues connected to precise and accurate pronunciation of English – the videos deal for example with specific sounds, sentence stress, and differences between British and American pronunciation accents. Hůlková not only effectively clarifies the theoretical basis of the selected pronunciation problems, but she also offers plenty of appropriate examples. She encourages the viewers to practice the selected example phrases and sentences with her via repetition. She often works with minimal pairs that she uses for comparison.

When choosing the particular videos to serve as primary sources for this thesis, the researcher focused on typical issues known and observed on her own teacher practice. Thus, four video lessons were selected. With regard to the students' estimated average level of English being A2 (according to CEFR), only short and simple words were

chosen to serve as the means of measurement. Some of these words chosen were explicitly mentioned in one of Hůlková's videos. These words are “bet”, “bat”, “sad”, “said”, “dad”, “dead”, “cap”, “thick”, “tick”, “three”, “tree”, “day” and “they”. The sentence which is specifically used and examined for the purpose of correctly used sentence stress is “What are you having for lunch?”. The remaining words and sentences were selected and created randomly to discover whether the students will be able to reproduce the acquired knowledge and apply it correctly on different examples without explicit exposure and with no chance to practice it beforehand.

3.3.1 Description of videos

The first video lesson is called “Slavné otevřené /æ/ v angličtině! Aneb BAT není BET ani BUT a DAD není DEAD!” [Famous open /æ/ in English! I.e. BAT is neither BET nor BUT and DAD is not DEAD!] and as the name suggests, it focuses on the correct pronunciation of the near-open front unrounded vowel commonly called “ash”. At the beginning of the video, Hůlková mentions the fact that this sound does not exist in Czech language, therefore it is often problematic for native speakers of Czech to be pronounced properly. At first, Hůlková presents a phonetic chart and provides explanation on the openness of the vowel. Then she proceeds to the comparison of /æ/ with the sounds /e/ and /a/ while demonstrating the movement of the mouth and lips. She mentions that the sound of /æ/ is often created as something in between the sounds /e/ and /a/. She then presents three example words “bet”, “bat” and “but”. She points out that the sound /e/ is very similar to the same sound /e/ in Czech. The next example words she presents for comparison are “better”, “batter” and “butter”. She points out

the difference between the pronunciation of /æ/ in British and American accents. She uses two example sentences: "Her dad isn't dead." and "She said she was sad." At the end of the video, she shares a tip saying that in most cases, the letter /a/ in the written form is usually pronounced as the sound /æ/. (Hůlková, 2020)

The second video lesson is called "Pozor na znělé souhlásky na konci anglických slov! Aneb záda nejsou taška a čepice není taxík :)" [Beware of voiced consonants at the end of English words! I.e., back is not a bag, and a cap is not a cab.] Hůlková begins with the comparison of three Czech words "kov", "dub" and "led". She points out the difference between the written form and the pronunciation of final consonants – in Czech these words are pronounced differently due to the phenomenon of final-obstruent devoicing and are pronounced as /kof/, /dup/ and /let/. Hůlková mentions that this phenomenon is not present in English pronunciation and if there is a voiced consonant at the end of the word, it should be pronounced as voiced. She also explains that the difference between production of voiced and voiceless consonants lies in the usage of vocal chords. She uses following minimal pairs as examples: "cap" versus "cab", "mate" versus "made", "back" versus "bag", and "course" versus "cause". She states that if there is a voiced consonant at the end of a word, it should be pronounced as voiced. She also mentions that in addition to the difference in the unvoiced and voiced final consonant, there is also a difference in the length of the vowel. She points out that an unvoiced consonant at the end of words shortens the preceding vowel, therefore the length of the preceding vowel is also of a great importance. She then presents two

sentences for further practice: “I’ve left my cap in the cab.” and “Put it back in the bag.” (Hůlková, 2020)

The third video is focused on dental fricatives. The video is called “Dvě velmi známé souhlásky v angličtině, v kterých se často chybuje! Aneb jak na výslovnost "TH"!” [Two famous English consonants that are often misspelled! Or how to pronounce “TH”!]. Hůlková explains that these consonants tend to be problematic for Czech native speakers due to the fact that they do not exist in the Czech language. She specifies the difference between voiceless consonant /θ/ and voiced consonant /ð/ and she states that the correct pronunciation is simply a matter of voice. She first introduces a practice: viewers should pronounce /s/ sound and then put their tongues to the front of their teeth, thus achieving the pronunciation of /θ/. She applies the same example on the sounds /z/ and /ð/. She reminds the viewer of the fact that these two sounds are dental, and provides explanation: dental sounds are created by the tip of the tongue that makes contact with the front teeth. She also points out the typical pronunciation errors of Czech native speakers: instead of saying /ð/ learners tend to say /d/, instead of /θ/ one can hear /s/, /f/ or /t/. She provides a useful tip for learners: it is often common that words that bear meaning are pronounced with the voiceless consonant /θ/ such as in “think”, “thing”, “thirsty”, “three” and “thumb”, while functional words such as “this”, “that”, “those” and the definite article “the” typically use the voiced consonant /ð/. The minimal pairs she provides for practicing are “thick” versus “tick”, “tree” versus “three”, “tie” versus “thigh”, “sink” versus “think”, “worse” versus “worth”, “moss” versus “moth”, “day” versus “they”, “udder” versus “other”, and finally

"doze" versus "those". She frequently reminds the viewers to use the tongue and put it on the tips of their teeth. The sentence she provides for practice is "On the day they did that." She also recommends practicing pronunciation in front of the mirror. (Hůlková, 2020)

The fourth video deals with sentence stress. The title of the video is "Větný přízvuk v angličtině aneb jízda na horské dráze!" [Sentence stress in English: a roller-coaster ride!]. At the beginning of the video, Hůlková emphasizes the importance of explaining the difference between sentence stress in Czech and in English. She explains that in Czech the stress is usually being put on the first syllable, while in English one need to differ and recognize two kinds of words: content words and structure words. While content words are typically stressed, the opposite applies for structure words. The example phrases and sentences she presents are "for lunch", "What are you having?" "What are you having for lunch?", "Thanks for coming.", "Have you seen them?" and "What do you do for a living?". She also mentions the reduction of structure words as in "Have you seen them?" where "have" and "them" should be pronounced in the weak forms with a schwa /ə/ sound. She proceeds to present several transcribed phrases and encourages the viewers to read them out loud. These phrases are "a cup of tea", "a piece of cake" and "a glass of water". (Hůlková, 2020)

3.4 Research realisation

This chapter is dedicated to the overall description of the course of the research. Included are the step-by-step instructions the participants received, and the division of

the participants into Groups is specified. This chapter also includes information on the evaluation of the recordings, as well as an example evaluation of three selected participants whose results were, in some ways, extraordinary. The chapter also presents the content of the questionnaire survey.

3.4.1 Data collection

The entire research was realised through the Microsoft Office online platform Teams. This product, although originally intended to be used in office workplaces, offers a wide variety of options for distant learning at schools. This platform has been implemented at the school during autumn 2020 during the second pandemic outbreak and at the beginning of the longest closure of public schools in the Czech Republic. Due to this, students were already familiar with the interface at the time of the research (spring 2021), and thus MS Teams provided a convenient basis for gathering the materials and data.

The most useful of MS Teams functionalities proved to be "Zadání" which allows teachers to assign, collect, correct and return students' homework. In "Zadání", students were given instructions to read the assigned text, how to record their speech and how to submit the recording. Another functionality of MS Teams that was used during the research was a feature called "Kvíz" which allows users to create, assign and evaluate questionnaires. Given the students' estimated level of English all the questionnaires and instructions were made in Czech in order to ensure overall understanding. The original instructions are included in the Appendix (see Appendix F).

3.4.2 Research structure

This section is devoted to the description of the organization of the research. During the course of the research, students were given 8 Tasks in total. Below the chronological list of tasks is presented, followed by a commentary.

Tab. 3: List of tasks

Task 1	Recording 1
Task 2	Questionnaire 1 – motivation (1st round)
Task 3	Watching videos 1 and 2
Task 4	Questionnaire 2 – verification
Task 5	Watching videos 3 and 4
Task 6	Questionnaire 3 – verification
Task 7	Recording 2
Task 8	Questionnaire 1 – motivation (2nd round)

Task 1 was the initial recording and Task 7 was the final recording. Tasks 2 and 8 comprised of filling in the Questionnaire 1, which focused on determining students' motivation, self-perception of overall ability and previous knowledge. The Questionnaire 1 slightly differed in the first round to the second round (the entire Questionnaire is included and commented upon in the Section 3.6.1). Students filled in the Questionnaire 1 before the start of the research and later at the end of the research, thus enabling the researcher to measure changes in motivation and self-perception. In order to ensure that the participants saw and understood the video, they were asked to fill in the Questionnaires 2 and 3 after watching the assigned videos. These questionnaires were created solely to verify that the students watched the videos and are unimportant for the results of the thesis, therefore are neither further discussed nor enclosed.

In total, 49 students belonging to 6 classes finished the research. Students' and classes' names were randomly anonymised using code names. The following chart presents the division of classes and number of participants followed by a commentary.

Tab. 4: List of participants

	No. of participants	Watched videos	Given code names
Class A	8	1 time/week	Alan, Alex, Alice, Andrew, Anett, Ashton, Astra, Audrey
Class B	4	no	Barnes, Betty, Brady, Brett
Class C	8	3 times/week	Charlene, Carol, Casey, Cecilia, Clara, Clint, Cora, Cristine
Class D	8	no	Daisy, Dakota, Daniel, Daphne, David, Desmond, Diana, Dylan
Class E	5	no	Eleanor, Eliah, Emma, Ethan, Ezra
Class F	11	3 times/week	Faith, Fawkes, Fay, Felicity, Felix, Fernanda, Fiona, Florence, Frances, Freya, Frida
Class G	5	1 time/week	Gabriela, Gemma, George, Ginny, Grace
total	**49**		

Tab. 5: Division of groups

Classes C and F	watched 3 times	Group 1	19 participants
Classes A and G	watched 1 time	Group 2	13 participants
Classes B, D and E	did not watch	Group 3	17 participants

For further reference, the students were divided into three groups. Group 1 consisting of Classes C and F was instructed to watch each of Hůlková's videos three times. Group 2 consisting of Classes A and G watched it once and Group 3 consisting of Classes B, D and E acted as a control group that did not watch any videos. The total number of participants who joined the research at the beginning was 63 and as mentioned above, the number of participants who submitted all the necessary materials and worked

dutifully throughout the entire research was 49, the drop-out rate thus being 23 %. Only those participants who submitted both recordings were taken into account.

Classes C and F, who watched the videos three times and ergo were the most important group for the research, consisted of 19 students. These classes were carefully chosen based on the researcher's overall experience with individuals' performances during previous English lessons. Students who belong to these classes were neither profound nor confident in the English classes, but they were the most hard-working and conscientious ones. Classes A and G, who watched the videos only once, consisted of 13 students. Overall, these students' initial skills (judging by the researcher's previous experience) were of a very mixed level, ranging from A1 to B2. Last but not least, the group of Classes B, D and E consisted of 17 students. At school, these classes are the most difficult to work with, since many of these students struggle with motivation (for various aforementioned reasons). The researcher therefore presumed that most of the students might not dutifully execute all the required tasks, so subsequently, they were chosen to act as a control group.

3.4.3 Recordings

The following text was sent to the students with the instructions to record themselves while reading it aloud in one take. Since the platform Teams does not contain any functionality for producing recordings, the online application Vocaroo (Vocaroo, 2021) was recommended. Vocaroo is an online app that allows the users to easily record themselves and send the recording to another party without any unnecessary inconvenience. The interface is simple and user-friendly, and the recordings produced are of

sufficient quality. Nevertheless, some students used different programs on their computers or mobile phone applications such as “Diktafon” on iPhones. The procedure was to record themselves once before the start of the research in order to measure the initial ability to pronounce the target features correctly, and once again after they watched the assigned videos to measure their improvement.

The text below was created specifically for the purpose of the research. It was written in a simple, understandable manner with respect to the students’ estimated level of English. It narrates a simple story, and mostly, it is in the form of a dialogue. The text contains example words from both Hůlková’s videos and additional target words and phrases containing the target features of pronunciation.

Story of a Sad Bat

I am a white bat. My life isn't bad, but sometimes I am sad.

I live with three other bats on a big tree. They are my friends.

One day a cat visited us. She had a white hat on her head. She sat close to me and asked me:

"What are you having for lunch?"

"A cup of tea," I said. "What happened to your hair?"

"I had to cut my hair because it was really thick and there was a tick in it!

That's why I'm wearing the hat!"

"I bet your hair was beautiful," I said and offered her a cup of tea.

"My dad also had nice hair and he always kept it neat. But now he is dead."

"Oh my god, I'm so sorry! How did he die?" asked the cat.

"He passed in his bed," I replied. "But I think about him every day."

I also have got a cap which belonged to my father. I really like the cap, but I should save it in a safe. And this is the end of the story.

Fig. 2: Target text for students

3.4.4 Evaluation of the recordings

The recordings were analytically evaluated by the author of this thesis as well as by another three external assessors. Due to the large amount of time required for the evaluation, the external assessors listened only to 9 or 11 recordings each. The external assessors were all of Czech origin, all women and university-educated teachers of English with minimum of two years of work experience. In order to sustain objectivity, the results presented are calculated separately for the author of this thesis and for the external assessors. The external assessors' results thus provide feedback on the author's results, as well as a valuable comparison.

An edited version of the text was given to the external assessors (see Appendix A). In this version the particular target words are in bold. Below the text there is a note which specifies the number of the target words. The assessors also received the marking protocols in the form of sets of tables printed on separate sheets of paper for filling in the results (see Appendix B). The assessors were asked to listen to each recording several times in order to ensure objectivity. Each feature was given points from 1 to 10 based on the quality of pronunciation. This method allowed enumeration of the entry data. In case the feature did not appear at all, for example the participant confused the word with a different one, or the feature was inaudible, the assessors marked it as zero. (This happened for example with the student Audrey who confused the word "god" with "gosh".) The results were then put in a MS Excel sheet and averaged. After that, the overall average scores were put into graphs, first for each Class, later for the final results of the research. For the purpose of the graphs, the results are not expressed in the original scale of points from 1 to 10, but in percentages that provide more understandable representation.

3.4.5 Example of selected participants' evaluation

In order to illustrate the mechanics behind the research, students Gemma of Group 2, Cecilia, and Clint (both of Group 1) were chosen due to their unusual results for detailed analysis. Below are their individual results presented.

Student	Gemma			Clint			Cecilia		
Minimal pairs - voiced / voiceless consonants	**1st recording**	**2nd recording**	**progress**	**1st recording**	**2nd recording**	**progress**	**1st recording**	**2nd recording**	**progress**
bad /bæd/ - bat /bæt/	1	5	4	8	10	2	1	1	0
bed /bed/ - bet /bet/	4	4	0	7	8	1	2	1	-1
had /hæd/ - hat /hæt/	1	2	1	3	2	-1	2	2	0
sad /sæd/ - sat /sæt/	5	6	1	4	6	2	1	1	0
save /seɪv/ - safe /seɪf/	1	7	6	9	10	1	1	1	0
god /gɒd/ - got /gɒt/	5	7	2	7	8	1	4	5	1
Minimal pairs - ash /æ/ and /e/ or /ʌ/	**1st recording**	**2nd recording**		**1st recording**	**2nd recording**		**1st recording**	**2nd recording**	
sad /sæd/ - said /sed/	2	2	0	8	10	2	1	1	0
dad /dæd/ - dead /ded/	1	1	0	3	5	2	1	1	0
had /hæd/ - head /hed/	1	3	2	7	7	0	1	1	0
cap /kæp/ - cup /kʌp/	2	3	1	5	7	2	2	2	0
cat /kæt/ - cut /kʌt/	2	2	0	6	6	0	2	2	0
Minimal pairs - /θ, /ð/ and /t/	**1st recording**	**2nd recording**		**1st recording**	**2nd recording**		**1st recording**	**2nd recording**	
three /θriː/ - tree /triː/	3	4	1	4	4	0	3	4	1
thick /θɪk/ - tick /tɪk/	6	7	1	4	7	3	6	7	1
they /ðeɪ/ - day /deɪ/	5	5	0	5	5	0	4	5	1
Sentence stress	**1st recording**	**2nd recording**		**1st recording**	**2nd recording**		**1st recording**	**2nd recording**	
What are you having for lunch?	6	6	0	3	4	1	4	5	1
What happened to your hair?	7	7	0	5	5	0	5	4	-1
I bet your hair was beautiful,	4	5	1	3	3	0	3	3	0
But I think about him every day.	7	8	1	3	4	1	4	3	-1
And this is the end of the story.	3	5	2	4	5	1	4	2	-2

Fig. 3: Example of selected participants' evaluation

Gemma managed to achieve a great improvement, especially in the minimal pairs, suggesting that although she was asked to watch the videos only once, she has done so with particular care and patience. The most significant improvement can be seen in the minimal pair "safe" versus "safe" where she achieved 60 % improvement. Her average improvement in the difference between voiced and voiceless consonants was 23 %, which is substantially above her Group's average. On the contrary, Cecilia, who should

have watched the videos thrice, proved that with some students, the second recording could have had worse outcome that the first one. In her case it could be attributed to impatience and hastiness which is apparent from the recording, and due to which she consequently makes unnecessary mistakes. It needs to be pointed out that Cecilia was, according to the results, not achieving very well since the beginning, which can be explained either by her pre-intermediate English, or by her overall lower motivation. And last but not least, Clint, belonging to the same Class as Cecilia, is one of these students whose previous knowledge of English was already superb, but he still managed to improve significantly, in some features even almost to the point of perfection. Since his level of English before the start of the research experiment was very high, his overall improvement is only 9 %. Despite this fact, his pronunciation of the minimal pairs "bat" versus "bad", "save" versus "safe", and "sad" versus "said" was, as the points prove, brought to perfection.

3.4.6 Questionnaire survey

As an addition to the analysis of the recordings, the questionnaire survey was conducted. The questionnaire measured the participants' attitude, self-perception, self-awareness of the ability to perform the required tasks, and the motivation to improve in pronunciation in general. Only Groups 1 and 2 who watched the videos submitted the questionnaire in order to measure their overall attitude. Group 3 acted as a control group and hence was of no importance for the questionnaire survey.

The questionnaire consisted of six key rating-scale questions with points from 1 to 10 (1 being minimum, 10 maximum) and five additional open-ended or

dichotomous questions. Below are the tables of the key questions and additional questions used including the description of the rating scale. The additional questions differed depending on the phase of the research. Before the viewing the questionnaire contained the additional questions number 7 and 8, and after the viewing the questionnaire contained the additional questions number 9 and 10.

Tab. 6: Questionnaire – key questions

1	How satisfied are you with your English pronunciation? (1 – not at all, 10 – completely)
2	Do you get nervous when you have to read aloud in English? (1 - not at all, 10 - always)
3	Can you read English texts aloud fluently? (1 - not at all, 10 - always)
4	How often are you unsure of where to put the stress in a word? (1 - not at all, 10 - very often)
5	How often are you unsure of where to put the stress in a full sentence? (1 - not at all, 10 - very often)
6	Do you want to improve your English pronunciation? (1 - not at all, 10 - definitely)

Tab. 7: Questionnaire – Questions before viewing

7	Are you doing anything yourself to improve your pronunciation? (dichotomous yes-no question)
8	If yes, what do you do? (open-ended question)

Tab. 8: Questionnaire – Questions after viewing

9	Did you find Irena Hůlková's videos useful? (1 - not at all, 10 - definitely)
10	What have you improved the most in? (open-ended question)

The results of the questionnaire survey are presented and commented upon in the Discussion section.

3.5 Research experiment results

In this chapter, the results of the research experiment are presented. All results are illustrated and visualised in the form of graphs showing the improvement achieved in percentages. The first chapter deals with overall results of all classes, followed by separate results of Groups according to the assigned number of watching the videos. For completeness, results of individuals are included in the Appendix C and results of separate Classes are included in the Appendix D. These results are not further commented upon since they are of minor importance for the actual research.

3.5.1 All classes results

This part of the thesis deals with overall marks of achievement of the total of 49 participants. Below the graphs a commentary is present.

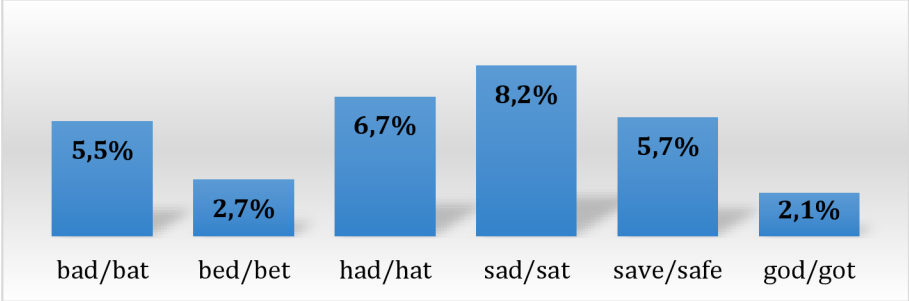


Fig. 4: All classes voiced / voiceless consonants

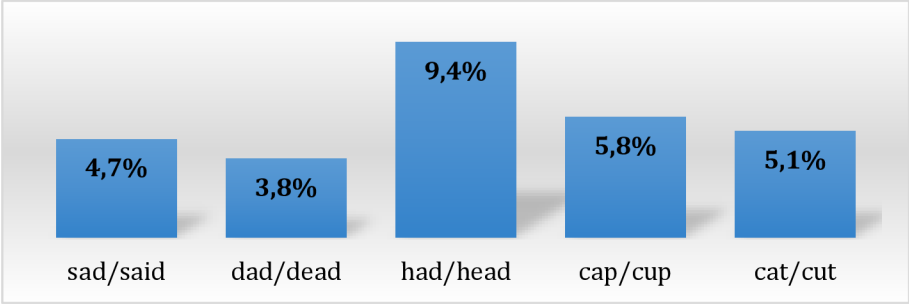


Fig. 5: All classes ash /æ/ and /e/ or /ʌ/

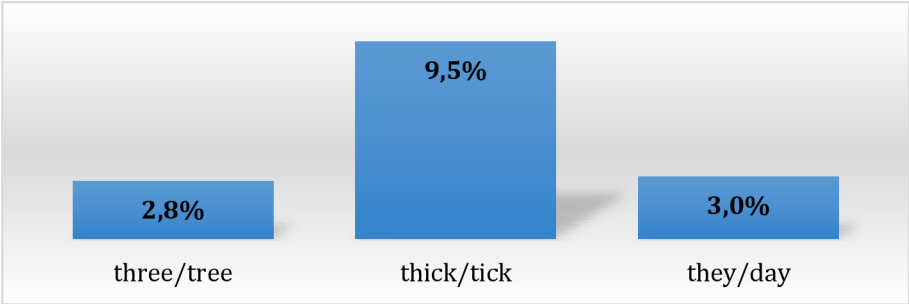


Fig. 6: All classes /θ/, /ð/ and /t/

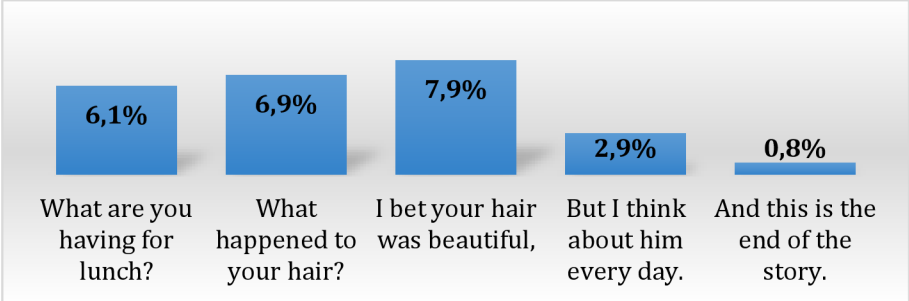


Fig. 7: All classes sentence stress

As the graphs show, there are several aspects of the results that should be commented upon. First of all, none of the measured outcomes is a negative number, suggesting that

all of the students improved in every feature measured. Nevertheless, some of the outcomes are almost unmeasurable, for example the participants' improvement in sentence stress in "And this is the end of the story," which is only 0,8 %.

It is apparent that the easiest and most measurable minimal pair to perfect is the difference between /θ/ and /ð/ in "thick" versus "tick". Students managed to achieve 9,5 % of average improvement. This result can be attributed to the fact that this example was explicitly mentioned in the Hůlková's video. Also, considering the significant difference of the two sounds and the fact that the sound /θ/ does not exist in Czech, it might have been relatively easy for the participants to practice. That being said, this impressive result is substantially different to what we can see in the minimal pair "three" versus "tree", even though this minimal pair was also discussed in the Hůlková's video. This could be explained by the fact that it is more difficult to pronounce the sound /θ/ correctly if it is followed by a consonant, as it is in "three", than if it is followed by a vowel, as in "thick", since it requires a special and precise movement of the tongue. However, similar result as to the "th" sound is seen in the correct pronunciation of the ash sound in "had" versus "head", where students achieved 9,4 % improvement. This result is surprising, considering the fact that the difference is significantly more subtle than the previous example, despite the fact that this minimal pair was present in the Hůlková video as well.

On the other hand, students were not as successful as the in the improvement of the voiced dental fricative /ð/ in "they", achieving only 3 % progress. The researcher assumes that this could be explained by the commonness of the word "they" which is

very often mispronounced by the ESL students. It is without a doubt difficult to correct the incorrect pronunciation of a fossilised mistake only on the basis of a video and self-study.

When it comes to the difference between voiced and voiceless consonants, the most significant achievement can be seen in the minimal pair “sat” versus “sad” reaching 8,2 %. On the other hand, students have not achieved almost any progress in the minimal pairs “bet” versus “bed” and “got” versus “god” scoring only a bit more than 2 %. The researcher was pleasantly surprised to discover that the minimal pair “safe” versus “safe” scored relatively highly, considering that many participants were absolutely unaware of the difference between the noun and the verb.

As to the sentence stress, the easiest sentence to master proved to be “I bet your hair was beautiful,” with the result of 7,9% achievement, contrary to the aforementioned last sentence. This result is also of surprise since it was expected that the first sentence will be improved the most, based on the fact it was practiced in the Hůlková’s video on sentence stress. It could be possible that the participants struggled more with the sentence stress in a question, and since the third sentence could be understood as almost an exclamation, it might have felt natural for the students to pronounce it with more distinctive vigour.

3.5.2 Group 1 results

Following are the results of Group 1 (Classes C and F) who were asked to watch each video three times.

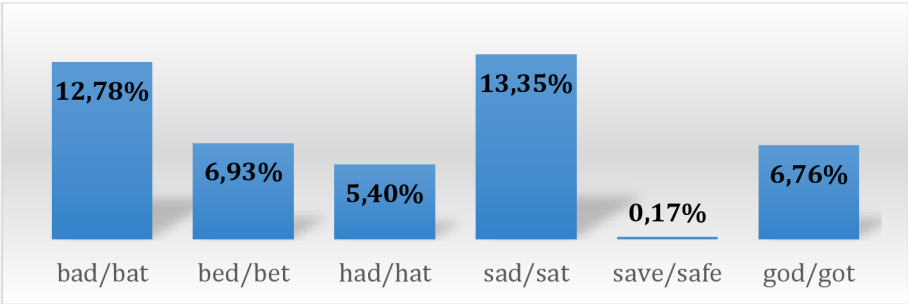


Fig. 8: Group 1 voiced / voiceless consonants

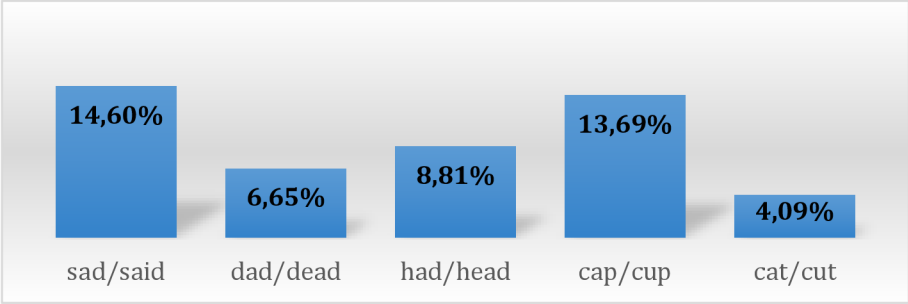


Fig. 9: Group 1 ash /æ/ and /e/ or /ʌ/

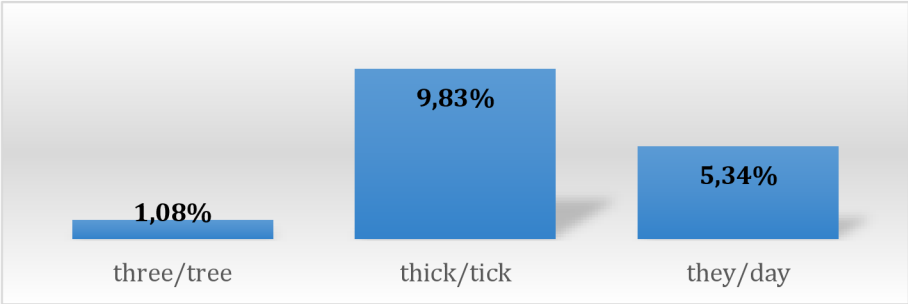


Fig. 10: Group 1 /θ/, /ð/ and /t/

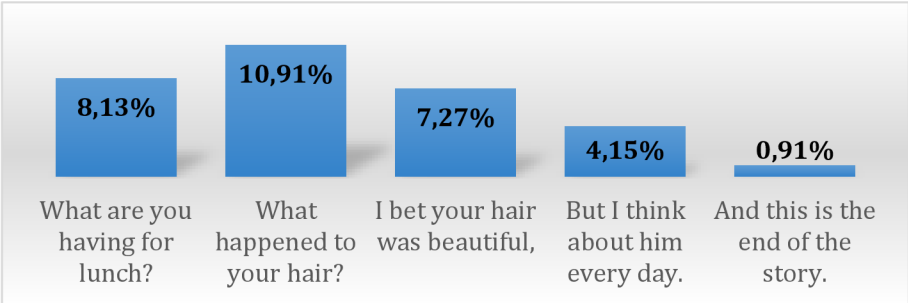


Fig. 11: Group 1 sentence stress

Average improvement of Group 1 was:

Voiced / voiceless consonants:	7,57 %
Ash /æ/ and /e/ or /ʌ/:	9,57 %
/θ/, /ð/ and /t/:	5,42 %
Sentence stress:	6,27 %

With this Group, the results have proven to be the best out of the three groups. Group 1 significantly improved in most of the features measured, reaching up to almost 15 % of average achievement. As to the pronunciation of voiced and voiceless consonants, the best score was achieved in two minimal pairs "sad" versus "sat" and "bat" versus "bat" reaching around 13 %. On the contrary, the minimal pair "safe" versus "save" testing the correct pronunciation of dental fricatives proved to be the most difficult to improve – students achieved only 0,17 % progress. Learning to pronounce the sound "ash" correctly was of a significantly lesser problem for the participants since they managed to score almost 15 % of improvement in the minimal pair "sad" versus "said" and almost 14 % in the minimal pair "cap" versus "cup". With the dental fricatives, the difference in the minimal pair "thick" versus "tick" was, again, the simplest to progress in, while the difference in the minimal pair "three" versus "tree" was apparently too difficult to learn. In sentence stress, the first two questions offered great results, while in the last sentence students did not improve at all, in accordance with the overall results of all groups.

Furthermore, it should be mentioned that in this group there were several apparently immensely hardworking and diligent students who significantly helped to

improve the overall score of the Class F. These were for example Fernanda and Fawkes whose detailed score is shown and analysed below.

Student	**Fernanda**			**Fawkes**		
Minimal pairs - voiced / voiceless consonants	**1st recording**	**2nd recording**	**progress**	**1st recording**	**2nd recording**	**progress**
bad /bæd/ - bat /bæt/	3	8	5	1	6	5
bed /bed/ - bet /bet/	1	1	0	1	6	5
had /hæd/ - hat /hæt/	1	8	7	2	7	5
sad /sæd/ - sat /sæt/	2	7	5	3	8	5
save /seɪv/ - safe /seɪf/	1	1	0	1	1	0
god /gɒd/ - got /gɒt/	7	7	0	4	7	3
Minimal pairs - ash /æ/ and /e/ or /ʌ/	**1st recording**	**2nd recording**		**1st recording**	**2nd recording**	
sad /sæd/ - said /sed/	1	8	7	1	5	4
dad /dæd/ - dead /ded/	1	2	1	2	5	3
had /hæd/ - head /hed/	1	7	6	1	6	5
cap /kæp/ - cup /kʌp/	5	7	2	4	7	3
cat /kæt/ - cut /kʌt/	6	6	0	4	7	3
Minimal pairs - /θ, /ð/ and /t/	**1st recording**	**2nd recording**		**1st recording**	**2nd recording**	
three /θriː/ - tree /triː/	3	2	-1	3	5	2
thick /θɪk/ - tick /tɪk/	4	7	3	7	5	-2
they /ðeɪ/ - day /deɪ/	2	3	1	5	6	1
Sentence stress	**1st recording**	**2nd recording**		**1st recording**	**2nd recording**	
What are you having for lunch?	4	5	1	1	2	1
What happened to your hair?	5	4	-1	1	2	1
I bet your hair was beautiful,	6	6	0	1	2	1
But I think about him every day.	2	3	1	1	3	2
And this is the end of the story.	2	2	0	1	5	4

Fig. 12: Exceptional participants' results

Fernanda's overall progress in all the features measured was 19,5 % and Fawkes' overall progress was 26,8 %. Given the limitations of the research (as further discussed in the Discussion chapter), these results are without a doubt impressive. According to the

above presented results, Fernanda managed to elevate her pronunciation of the /æ/ and /θ/sounds almost to the point of perfection. Fawkes's improvement is, especially in the voiced versus voiceless consonant, very steady, although he was unable to learn the difference in pronunciation of the noun "save" and the verb "safe", since he was probably unaware that these two words are of the different word classes, therefore they also differ in meaning. Both participants, however, struggled with the correct usage of sentence stress. Fawkes managed to improve distinctly only in the pronunciation of the last sentence, and Fernanda improved only marginally.

3.5.3 Group 2 results

This chapter presents the results of Group 2 (Classes A and G) who watched the videos once.

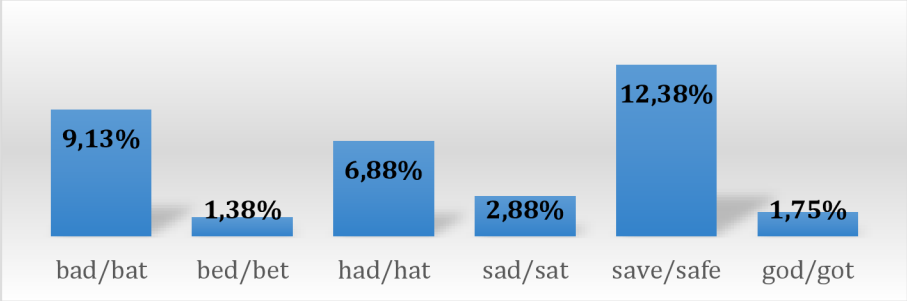


Fig. 13: Group 2 voiced / voiceless consonants

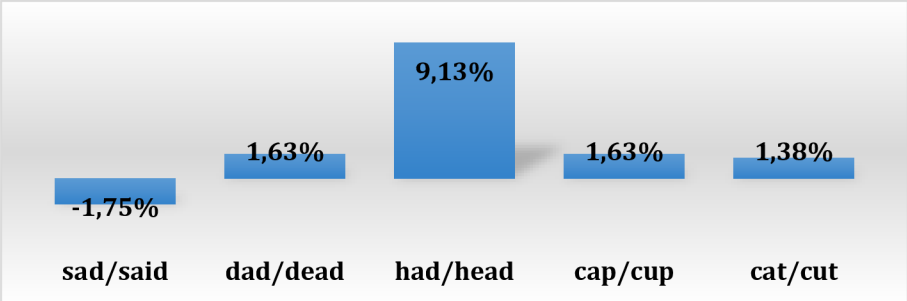


Fig. 14: Group 2 ash /æ/ and /e/ or /ʌ/

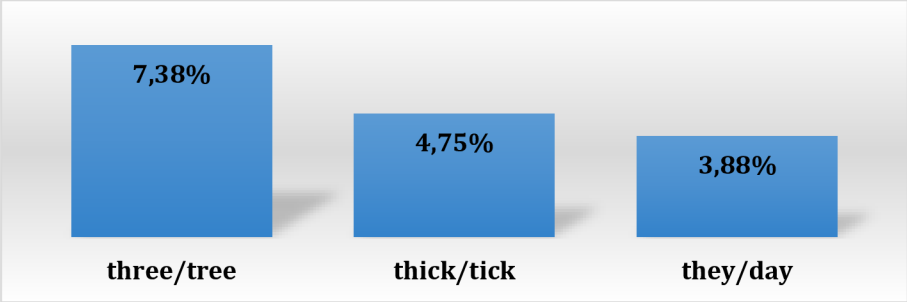


Fig. 15: Group 2 /θ/, /ð/ and /t/

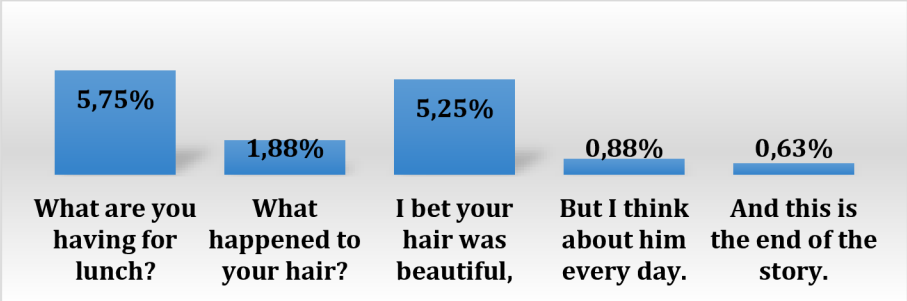


Fig. 16: Group 2 sentence stress

Average improvement of Group 2 was:

Voiced / voiceless consonants:	5,73 %
Ash /æ/ and /e/ or /ʌ/:	2,4 %
/θ/, /ð/ and /t/:	5,33 %
Sentence stress:	2,88 %

Group 2 surprisingly improved the most in the minimal pair "save" versus "safe" achieving an improvement of more than 12 %. This achievement can be attributed to the overall higher initial English skills of the participants who were – unlike the other Classes – already familiar with the difference between these two words' classes, since the first one is a verb and the other one is a noun. Also, students scored 9 % improvement in the minimal pair "bad" versus "bad" which can be explained by the presence of this minimal pair in the Hůlková's video lesson.

3.5.4 Group 3 results

Following are the results of Group 3 (Classes B, D and E) that acted as a control group. The participants did not watch any of the videos.

Fig. 17: Group 3 voiced / voiceless consonants

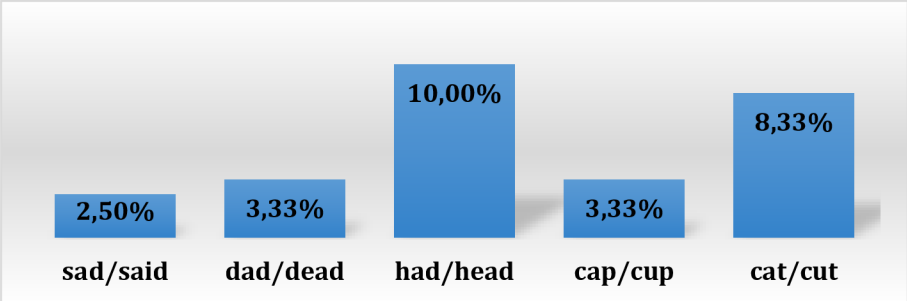


Fig. 18: Group 3 ash /æ/ and /e/ or /ʌ/

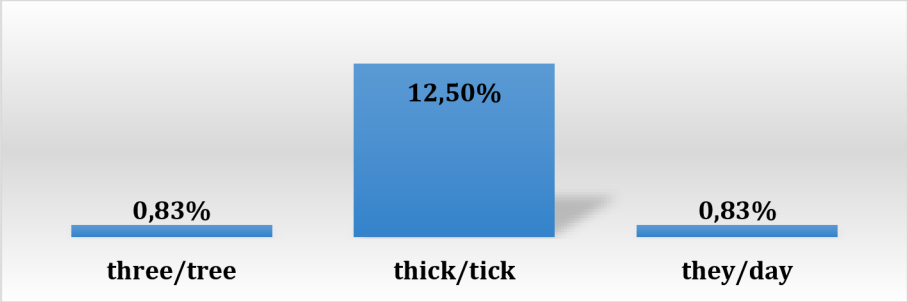


Fig. 19: Group 3 /θ/, /ð/ and /t/

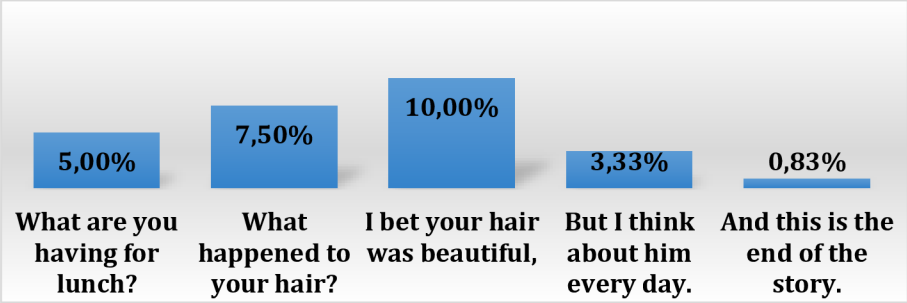


Fig. 20: Group 3 sentence stress

Average improvement of Group 3 was:

Voiced / voiceless consonants:	3,19 %
Ash /æ/ and /e/ or /ʌ/:	5,5 %
/θ/, /ð/ and /t/:	4,72 %
Sentence stress:	5,33 %

Even though the participants of this Group were not subjected to watching the videos, we can see an improvement in almost all features, despite the fact that some of the results are on the verge of measurability. Some of the improvement might be attributed to the familiarity with the text, some to the omnipresent intervening variables (see the Theoretical Section). In voiced and voiceless consonants, Group 3 achieved the best result in the minimal pair "sad" versus "sat" having improved 8,33 %, closely followed by the minimal pair "had" versus "hat" with an improvement of 7,5 %. However, in the minimal pairs "bat" versus "bad" and "got" versus "god", this Group's results slightly decreased in improvement, but again, the averaged percentages show that the decrease was doubtfully measurable.

3.5.5 Other assessors' results

The most pressing limitation of the selected method of evaluation is the researcher's objectivity. Despite the immense effort, the researcher is inevitably affected by plenty of factors such as the extend of the research, amount of time of the assessment, and the fact that the participants of the research experiment are the researcher's (and main assessors') students.

As Underhill (1987) advises, "the single most effective way of getting round the central problem of lack of reliability is to use more than one assessor. . . . The hiccoughs

or inconsistencies in the judgement of a single individual can be ironed out by combining her judgements with those of another person; the idea is that each person's hiccoughs are different so they tend to cancel each other out. So, two assessors, whose marks are combined, produce a more reliable score than a single assessor" (p. 89).

Unfortunately, due to the arduous and time-consuming nature of the evaluation of the recordings, it was impossible to gather evaluation from only one external assessor who would mark all 49 participants' results. Therefore, three other assessors were asked to mark 28 participants' results. Since there were three individual assessors, it was estimated that the results will differ significantly. In order to achieve objectivity, the assessors' results are not implemented in the body of the research, but are included in the Appendix E as an interesting and valuable means of comparison.

However, to illustrate the differences between individual assessors' results and to provide further evidence to the limitations of the method selected (as further scrutinised in the Discussion chapter), one feature was selected for analysis.

Minimal pairs /θ, /ð/ and /t/	F assessor	F researcher	averaged	C assessor	C researcher	averaged
three /θriː/ - tree /triː/	0,09	0,09	0,91%	0,88	0,13	5,00%
thick /θɪk/ - tick /tɪk/	0,91	1,09	10,00%	0,25	0,88	5,63%
they /ðeɪ/ - day /deɪ/	0,27	0,82	5,45%	0,75	0,25	5,00%

Fig. 21: Example analysis assessors vs. researcher

The feature selected for detailed examination is the correct pronunciation of the "th" sound. In the above presented table, the "assessor" column refers to one of the

external assessors, and the “researcher” column refers to the author of this thesis. The results are averaged results of Classes F and G, and the green “averaged” column presents the averaged results of both the assessor and the researcher. It is evident that in some cases the results are very similar, for example in the difference between the pronunciation of /θ/ in the minimal pair “thick” versus “tick” where the results between the two assessors differ only in 1,8 %. Moreover, the results are completely identical in the minimal pair “three” versus “tree”. It seems that the external assessor who marked the Class F had similar notions and mindset as the researcher.

In other cases, however, the results turned out to be opposite and thus contradictory. The external assessor who marked Class C had strikingly different opinions on the improvement. The differences between the external assessor and the researcher are approximately 6 % for each feature. While the external assessor attributed 8,8 % improvement in the minimal pair “three” versus “tree”, the researcher marked it only as 1,3 % progress. Quite the contrary, in the minimal pair “thick” versus “tick”, the researcher heard 8,8 % improvement, but the external assessor heard only 2,5 % improvement.

3.6 Discussion

3.6.1 Recordings

This chapter is dedicated to the interpretation of various aspects of the results, as well as the presentation of line graphs showing the results in comparison. The implications of these findings are discussed in the last chapter, Conclusion.

Four following line graphs show the overall results of the research experiment comparing the averaged improvement of all Groups in each of the features examined.

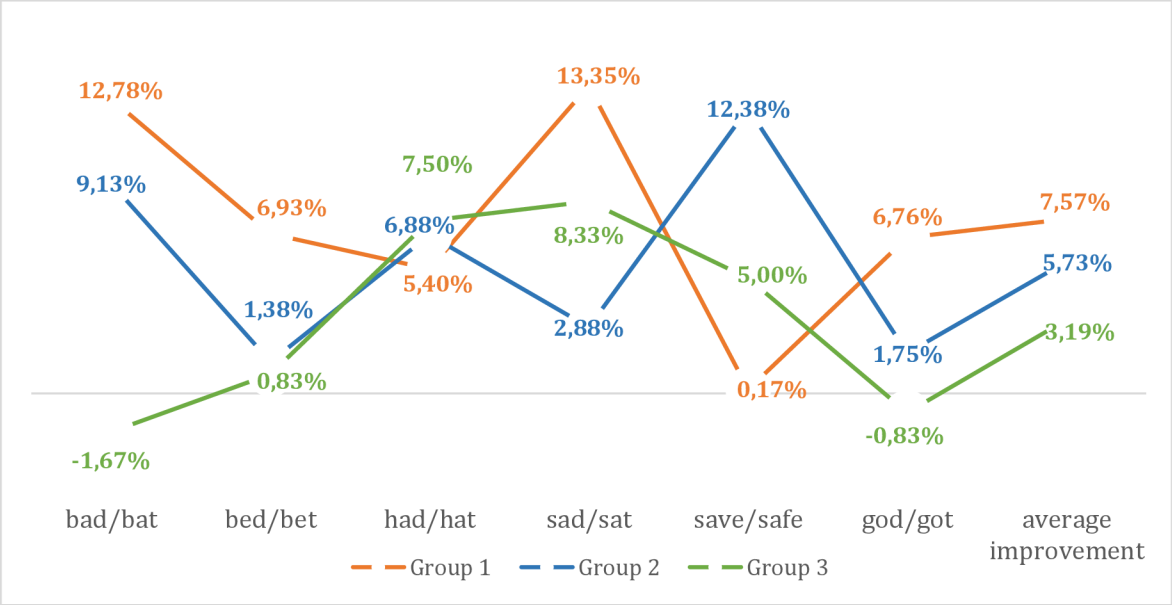


Fig. 22: Comparative results voiced / voiceless consonants

The graph above shows the overall results of all Groups in the first feature measured – the difference between voiced and voiceless consonants. As the graph proves, repeated watching is beneficial due to two facts: first, Groups 1 and 2 achieved higher overall improvement. Group 1 achieved overall improvement of 7,57 %, Group 2 achieved 5,73 % overall improvement and Group 3 achieved 3,19 % overall improvement. Second, Groups 1 and 2 scored higher in the words that were explicitly mentioned and practiced in the video lessons. As mentioned before, Hůlková used the words “bat”, “bet” and “sad” for the demonstration of voiced versus voiceless consonants.

The most notable difference of almost 14 % improvement between Group 1 and Group 3 after repeated watching can be seen in the minimal pair “bat” versus “bad”. In

fact, while the positive numbers in the graph show overall improvement, Group 3 has actually worsened in two of the target features during their second reading. When it comes to the minimal pair “bet” versus “bed”, the results are not as impressive, since Group 1 scored only 6 % more than Group 3. As to the difference between “hat” and “had” (words that were not mentioned in the videos), the comparison shows that all classes scored similar improvement. An interesting result is shown in the comparison of “save” and “safe”, where Group 2 scored significantly higher than the other groups. This can be attributed to the fact that some students from Group 2 already had a considerably advanced level of English and therefore were already acquainted with the difference between the pronunciation of the noun “safe” and verb “save”, whereas Group 1 was unable to distinguish between the meaning (and subsequently the pronunciation) of these two words. Last but not least, in the words “got” and “god”, both Groups 1 and 2 also achieved better results than Group 3. During the research it was apparent that the participants often pronounced word “god” in General American accent /gɑd/ with an open vowel as opposed to short vowel /gɒd/ commonly used in General British. The researcher attributes this to participants’ more frequent subjection to American accents than to British accents. It is also possible that this fact intervened and positively affected the results since the difference between the American pronunciation of “god” and the common pronunciation of “got” is somewhat more apparent as well as known to the participants. Furthermore, the expression “Oh my God!” is very common and natural for students.

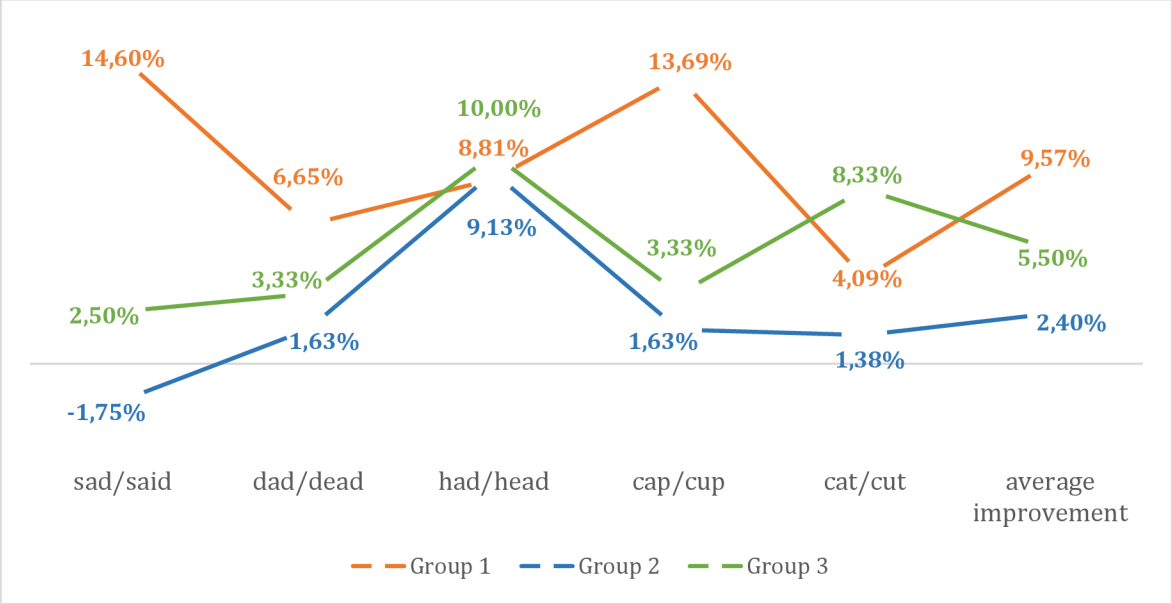


Fig. 23: Comparative results ash /æ/ and /e/ or /ʌ/

As we can see, there was only a slight improvement between Group 2 and Group 3 in the minimal pair "cap" versus "cup". The reason for this might be that the participants are unfamiliar with the word "cap" altogether and, in their idiolect, tend to use the word "hat" instead. However, Group 1 achieved the best result in this minimal pair, probably because the word "cap" was practiced in the Hůlková's video. This also applies to the minimal pair "sad" versus "said" where Group 1's progress was doubtlessly the most substantial one.

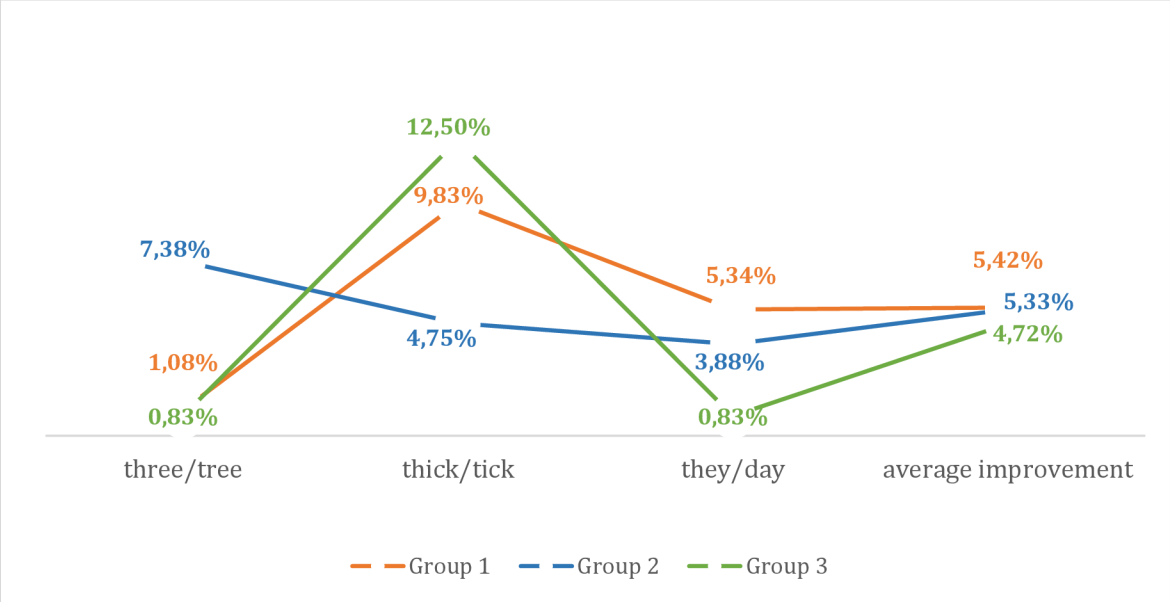


Fig. 24: Comparative results /θ/, /ð/ and /t/

This graph of comparative results of overall improvement shows ambiguous findings. On the one hand, Group 3 managed to improve in the correct pronunciation of /θ/ the most (although closely followed by Group 1), but were by far the worst in the pronunciation of /ð/. Inexplicably, Group 1 failed in improving in the pronunciation of /ð/ as well, despite the fact that this very minimal pair was explained by Mrs Hůlková in the video.

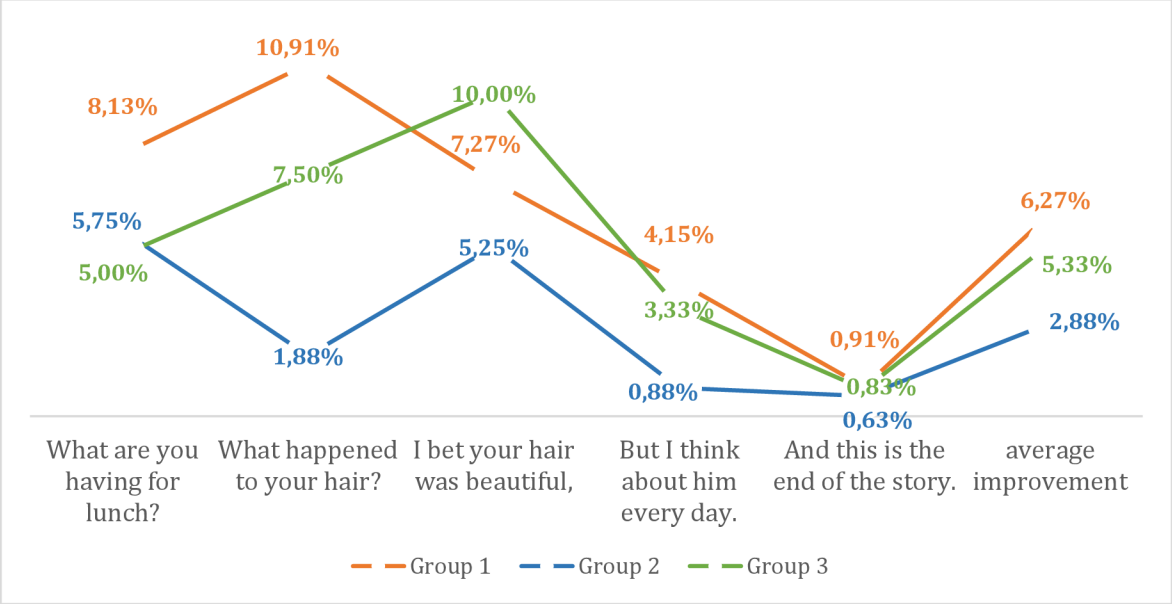


Fig. 25: Comparative results sentence stress

This graph yielded fascinating results since Group 2 shows worse results, and therefore smaller improvement, than Group 3. The fact that sentence stress is often worsened in the second recording can be attributed to the fact that students might have been already tired of the experiment and did not try hard enough; some of the recordings are read hastily and impatiently as though they were trying to rush it as much as possible. That, however, does not apply to the Group 1, whose participants improved their pronunciation significantly in all but one sentences.

3.6.2 Questionnaire

The questionnaire survey, which complemented the main body of the research experiment, yielded valuable results that will be discussed in this chapter. First, the results of the six key questions are presented and discussed. The additional questions are shown and discussed later in this chapter.

The two tables below represent the results of Groups 1 and 2. The first column "before viewing" shows the averaged responses on questions 1 to 6 at the beginning of the research, while the second column "after viewing" shows the averaged results after the participants watched all four videos. The third column "average" shows the averaged results of the groups, which can indicate the groups' overall confidence and motivation and serve as a global comparison of the two groups. The last and most important column shows the achieved progress in each question. Although some questions show progress in negative numbers, they represent a positive improvement, as will be further commented upon.

Tab. 9: Group 1 questionnaire results

	before viewing	after viewing	average	progress
1	4,55	5,42	4,98	0,88
2	6,76	6,64	6,70	-0,12
3	5,19	5,49	5,34	0,30
4	5,71	5,70	5,70	0,00
5	5,88	5,49	5,68	-0,39
6	9,48	9,64	9,56	0,16

Tab. 10: Group 2 questionnaire results

	before viewing	after viewing	average	progress
1	5,35	5,88	5,61	0,53
2	4,52	4,60	4,56	0,08
3	5,50	5,06	5,28	-0,44
4	4,22	5,81	5,01	1,59
5	4,70	5,82	5,26	1,13
6	8,84	8,81	8,82	-0,03

1. How satisfied are you with your English pronunciation?

(1 – not at all, 10 – completely)

Question 1 shows that Group 1 was initially less confident than Group 2 which can be explained by the participants' overall higher English abilities (as estimated by the researcher). However, Group 1 shows more notable progress in their own satisfaction (Group 1 scored 0,345 points higher in average than Group 2) which is in accordance with the overall improvement in the recordings.

2. Do you get nervous when you have to read aloud in English?

(1 - not at all, 10 - always)

Due to the nature of this question, results in negative number in fact meant a positive achievement. It can therefore be said that Group 2 was overall less nervous than Group 1, which can be (again) attributed to their higher level of English. While Group 1 slightly improved and felt less nervous after watching the videos, Group 1's nervousness was almost unaffected.

3. Can you read English texts aloud fluently?

(1 - not at all, 10 - always)

Group 1 felt more certain in reading texts aloud fluently after viewing the videos. Group 2 felt less certain and confident after the end of the experiment than they did before the start of the experiment. Such result might show that viewing the videos only once might have held up a mirror of their abilities, and made them doubt their fluency. Group 1, on the other hand, felt less fluent before the start of the experiment, and were

even more certain after the experiment finished than Group 2. It could prove that repeated watching can positively affect one's confidence in fluency while reading aloud.

4. How often are you unsure of where to put the stress in a word?

(1 - not at all, 10 - very often)

Questions 4 and 5 related to the issue of stress. Question 4 measured the sureness of being able to estimate word stress. As the results of the questionnaire show, Group 1 felt moderately certain and the repeated watching did not affect their sureness. Group 2, however, felt significantly less sure after watching the videos once proving that watching the videos only once could have affected their confidence in a negative sense. After viewing the videos only once they might have realised their limitations in English.

5. How often are you unsure of where to put the stress in a full sentence?

(1 - not at all, 10 - very often)

Similarly to Question 4, Question 5 investigated the participants' sureness in establishing stress, although this question focused on the issue of sentence stress. Group 1 slightly improved and thus were apparently positive affected by the repeated watching. Group 2 was, as in the previous question, more critical towards their abilities and were significantly more unsure of their ability to use sentence stress correctly.

6. Do you want to improve your English pronunciation?

(1 - not at all, 10 - definitely)

The last key question attempted to measure the participants' overall motivation to improve in pronunciation. Group 1 was, in accordance with the researcher's presumptions, indeed very motivated, and repeated watching even raised their motivation. Group 2 was slightly less motivated and watching the videos did not affect their motivation at all.

7. Are you doing anything yourself to improve your pronunciation?

(dichotomous yes-no question)

Question 7 was asked before the start of the experiment and aimed at establishing whether the participants actively try to improve their pronunciation outside classroom, and therefore further shows the participants' activity and interest in the field. The following figure shows the participants' answers.

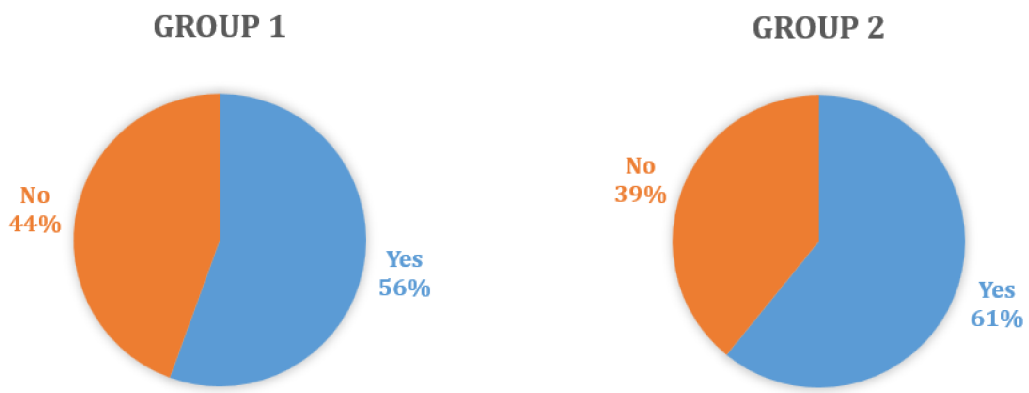


Fig. 26: Questionnaire - question 7

Interestingly, Group 2 claims to be more active in improving the pronunciation, although this result does not correspond with the findings of the research. Having said that, the difference between the two Groups is relatively small. Another positive fact that this graph shows is that a higher percentage of both Groups' participants claim proactivity.

8. If yes, what do you do? (open-ended question)

This open-ended question's aim was to collect some examples of the participants' aforementioned proactivity. After reading through the responses, it was apparent that most participants probably misunderstood the question and answered more broadly as if they were responding to a different question (such as "How do you improve your English?") instead. Most of the participants answered that they regularly watch English videos, TV shows, read books and listen to English music. Only 4 people commented specifically and solely upon pronunciation.

Selected most interesting answers are presented below in the original, as well as in translation.

Když se dívám na filmy, seriály s anglickým dabingem, snažím se poslouchat je-jich výslovnost. [When I watch movies and TV shows with English dubbing, I try to listen to them and their pronunciation.]

Pokud nějakému slovíčku popřípadě větě nerozumím vyhledám si výslovnost a snažím se větu opakovat dokud si myslím ze jsem ji řekla zprávně. [If I don't understand a word or sentence, I look up the pronunciation and try to repeat the sentence until I think I've said it correctly.]

Při koukánína film v aj si některá slova opakuji a snažím se napodobit a zapamatovat výslovnost a accent. [When I watch a movie, I repeat some words and try to imitate and memorize the pronunciation and accent.]

Dívám se na anglické seriály a filmy jen s titulkami a poslouchám jejich přízvuk, výslovnost atd. [I watch English TV shows and movies with subtitles only and listen to the accent, pronunciation, etc.]

Pro lepší výslovnost si všechny věty, které se v anglickém jazyce učím vždy přeříkávám nahlas. [For better pronunciation, I always say all the sentences I learn in English out loud.]

Snažím se co nejvíce mluvit anglicky např. s kamarádkama nebo se sestrou, která studovala vysokou školu v Anglii. Pokud si nejsem výslovností nějakého slova jistá vyhledám si to na internetu. Snažím se odposlouchávat výslovnost ve filmech, seriálech a ve videích. [I try to speak English as much as possible, e.g., with my friends or with my sister who studied at a university in England. If I am not sure of the pronunciation of a word, I look it up on the internet. I try to eavesdrop on pronunciation in films, TV shows and videos.]

Často si doma sám pro sebe mluvím anglicky u běžných činností. [I often speak English to myself at home during everyday activities.]

9. Did you find Irena Hůlková's videos useful? (1 - not at all, 10 - definitely)

Group 1 rated the usefulness of the videos in average 8,34 points out of 10. Group 2 rated the usefulness lower: 7,09 points out of 10. It seems that, according to the participants, repeated watching affects the impression of usefulness.

10. What have you improved the most in? (close-ended question)

The last question measured self-awareness of the achievement in the recordings research. Below the results are compared to the actual results of the experiment.

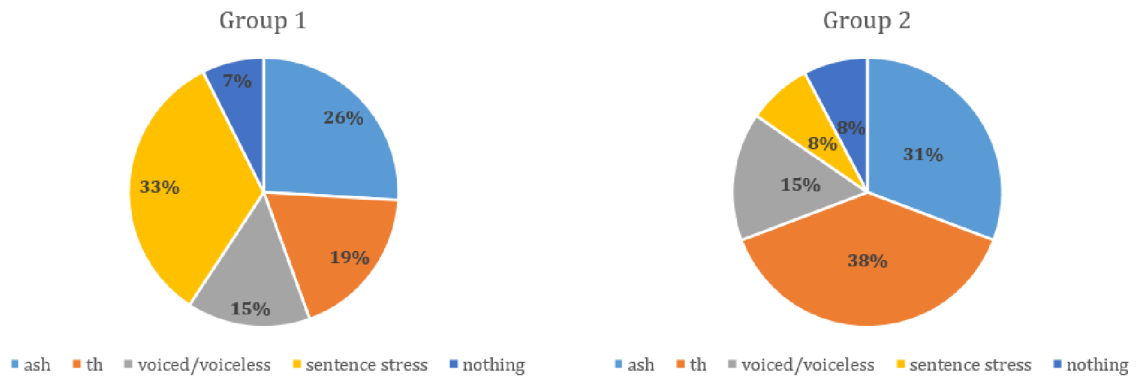


Fig. 27: Questionnaire: question 10

To be able to compare the results of the Questionnaire with the results of the research experiment, following are the overall averaged results of improvement stated.

Average improvement of Group 1 in the recordings was:

Voiced / voiceless consonants: 7,57 %
Ash /æ/ and /e/ or /ʌ/: 9,57 %
/θ/, /ð/ and /t/: 5,42 %
Sentence stress: 6,27 %

Average improvement of Group 2 in the recordings was:

Voiced / voiceless consonants: 5,73 %
Ash /æ/ and /e/ or /ʌ/: 2,4 %
/θ/, /ð/ and /t/: 5,33 %
Sentence stress: 2,88 %

This question shows that self-awareness of the participants was surprisingly inaccurate. Group 1 improved their pronunciation in voiced versus voiceless consonants the most, but assumed that they would most notably improve in sentence stress. Group 2 guessed that they achieved the best result in the correct pronunciation of "th", but in fact resulted the best in the difference of voiced and voiceless consonants. One positive

aspect the question shows is that only minimum students thought that they did not improve in any of the features measured.

3.6.3 Hypotheses analysis

To conclude the results of the whole research, further discussion will revolve around the hypotheses that have been stated prior to the research.

Hypothesis 1: Groups who watched the videos will improve their pronunciation of target features of speech.

This hypothesis has been only partly proven. All Groups including the control Group have improved in all features measured, although in some features the improvement was on the verge of measurability. Also, each Group improved the most in different features: Groups 1 and 3 improved the most in the correct pronunciation of the /æ/ sound, while Group 2 improved the most in the difference in pronunciation between the presence of voiced and voiceless consonants at the end of words.

Hypothesis 2: Group 3 who watched the videos three times will improve their pronunciation more than Group 1 that watched them only once.

This hypothesis was proven since the participants who watched the videos thrice have indeed achieved the most significant improvement. In accordance with these findings, it can be concluded that repeated watching of educational videos is useful, although only to a small extend since none of the results yielded any significant progress. It has been proven that students' self-awareness of progress is very low.

The easiest features to improve in (as measured in Group 1) were in the difference between voiced and voiceless consonants "bat" versus "bad" (12,78 %) and "sad"

versus “sad” (13,35 %), and in the correct pronunciation of /æ/ in the minimal pairs “sad” versus “said” (14,6 %) and “cap” versus “cup” (13,69 %). None of the averaged improvement exceeded 15 %, which equals to 1,5 points in the assessment of the recordings. Although the results were not impressive, in learning a foreign language even small steps of progress are of utmost importance.

Hypothesis 3: Groups who were not subjected to watching the videos will improve as well due to intervening variables, but only to a small extend.

This hypothesis was also partly proven. Group 3 improved in all the features measured, but when the results of Group 2 (who watched the videos once) and the control Group 3 are compared, it is apparent that in the correct pronunciation of /æ/ and the correct usage of sentence stress, the control group improved more than Group 2.

Hypothesis 4: Groups who watched the videos will improve the score in the questionnaire.

It has been proven that watching educational videos, regardless of the number of repetitions, is of beneficial effect on both confidence and motivation. Both Groups who were subjected to watching were more satisfied with their pronunciation after the experiment. Group 1 indicated improvement in every question, in accordance with the overall results. However, students of Group 2 who watched the videos only once, felt less certain in their ability to read English texts out loud fluently after the experiment, although their nervousness was unaffected. They were also less sure of their ability to use stress both in words and in sentences, and their overall motivation to improve did not change. Therefore, it seems that repeated watching is more beneficial for the

overall impression of one's abilities. Students of Group 1 rightfully assumed that they made some progress.

Hypothesis 5: The outcomes will be measurable based on the relatively large sample of 49 participants.

This hypothesis was proven since all results yielded some progress, although in some features almost unmeasurable. In order to clarify the issue of measurability, the following chapter discusses possible limitations of the method chosen.

3.6.4 Research limitations & further suggestions

After the recordings have been analysed, the most significant limitation proved to be the method of assessment combined with the large sample of participants. The large sample was established due to the belief that the results will be objective, valid, and measurable. However, with such a large sample, the assessment proved to be arduous and time-demanding. Although the researcher tried her best, it is undoubtedly possible that the objectivity was distorted by the fact that it took several weeks of continuous work to assess all the recordings responsibly and precisely, and in time the marking of the assessor might have developed and changed. Due to the aforementioned reasons, it was also impossible to employ a single second assessor which would increase the method's validity and reliability, so three other assessors were asked to mark only about 10 recordings each in order to provide at least some feedback on the main assessor's marking. An apparent limitation of the method is also the personality, experience and, most importantly, patience of the assessors.

Furthermore, the familiarity with the text most probably affected the results of the second recordings. Since the participants were asked to read the same text for both the first and the second recordings in order to ensure efficient measurability, they were possibly more fluent and precise in the second reading. The results might have been different if the text was at least slightly changed.

For future research, it would be interesting to try a different approach to the research experiment on the benefit of repeated watching of educational videos in ESL. The research experiment could be orchestrated differently. I suggest choosing only one video and a smaller number of participants for a long-term study to measure progress over, for example, a year. The participants of such experiment would be subjected to watching the video each month once. Also, free speech could be incorporated and evaluated instead of relying solely on reading an assigned text. It would be valuable to examine whether during longer and more intensive exposure would the results show more notable improvement in pronunciation. Last but not least, it would be of great value to employ one another assessor who would grade all the data. The two results would then be averaged and the validity of the results would be increased immensely.

Moreover, the overall intelligibility could also be assessed and enumerated. Since this thesis focused only on the selected features of speech, it would be of interest to apply the acquired knowledge of the participants on free speech and consequently, the aim of the research could be broaden and extended.

4 Conclusion

This thesis deals with the use of educational videos for self-study during distance learning. The aim of this diploma thesis is to determine whether repeated watching of educational videos is beneficial for improving students' pronunciation. In order to make these findings, the experimental research, in which 49 Czech high school students participated, was conducted. The participants were asked to watch four videos made by Mrs Irena Hůlková focusing on the correct pronunciation of several English sounds, the difference between the pronunciation of voiced and voiceless consonants, and correct usage of sentence stress. To enable the measurement of the participants' progress, they were asked to record themselves reading an assigned text. The text was created solely for the special purpose of the research and contained the target segmental and suprasegmental features of speech. These findings were then analysed and further accompanied by the questionnaire survey. The questionnaire survey focused on the participants' self-perception and motivation. This section aims to summarise the findings and contributions made.

The participants were, at the beginning of the research, divided into three groups in order to measure the different outcomes of various types of treatment. The first and the most important group, Group 1, consisted of 19 participants. These participants were asked to watch the assigned videos made by Mrs Irena Hůlková three times. The second group, Group 2, which consisted of 13 participants, watched each video once. The last group, Group 3 of 17 participants, acted as a control group and therefore were not subjected either to the videos or the questionnaire survey.

Altogether, there were 19 separate examples of 4 different features measured in the experiment. Overall, Group 1 improved the most in 12 out of 19 examples measured compared to Group 2 and Group 3. Group 2 improved the most in 2 out of 20 examples measured, and Group 3 improved the most of all Groups in 5 examples measured. When we look at the average improvement of each Group, we can see that the Groups who were subjected to viewing the educational videos achieved better results in improvement than the control Group, and moreover, the Group that watched the videos thrice improved more than the Group which watched the videos only once.

It was anticipated that the participants who watched the educational videos will significantly and measurably improve in the features examined. After the thorough analysis of the results, I believe that this anticipation has been proven, and it can be said that overall, repeated watching can be used as an efficient form of self-study during distant learning. That being said, it is important to note that some of the results were inconsistent and generally of low values, even to the point of being unmeasurable. It needs to be noted that it is with no doubt impossible to achieve perfection only by the selected method of learning, and also the limited time of the research experiment must be taken into consideration. These limitations explain the low scores in improvement which has not exceeded 15 % in any of the features measured. However, although limited, some progress indeed was measurable and apparent.

As to the motivation, Group 1 indicated that they were the most motivated group to improve their pronunciation, which corresponds to the findings. Group 1 improved the most both in the overall results of the research experiment, and in the self-

perception of their abilities, which proves that not only can repeated watching improve the factual results, but also the students' confidence.

To conclude, it has been shown that repeated watching can be useful, but only to some extend and only in some selected features. Overall, educational videos might serve as a valuable resource complementing the more traditional methods of language learning, mainly the presence of a skilled teacher. I believe that improvement can be achieved through continuous practice and since the method of learning through video lessons apparently is only partly sufficient, it should serve only as an addition to other approaches of learning a language.

Bibliography

Brockhaus, Wiebke Gertrud. (1992). *Final devoicing: principles and parameters* [Doctoral dissertation, University of London]. EThOS, British Library. https://discovery.ucl.ac.uk/id/eprint/10121067/1/Final_devoicing_Principles_an.pdf

Celce-Murcia, M., Brinton, D., & Goodwin, J. M. (1996). *Teaching Pronunciation: A Reference for Teachers of English to Speakers of Other Languages.* Cambridge University Press.

Cruttenden, Alan. (2014). *Gimson's pronunciation of English* (8th ed.). London: Routledge, Taylor & Francis Group.

Creswell, J. W. (2014). *Research design: qualitative, quantitative, and mixed methods approaches* (4th ed.). Sage.

Handbook of the international phonetic association: a guide to the use of the international phonetic alphabet. (1999). Cambridge University Press.

Hůlková, I. (2022, September 7). *Akademička youtuberkou? Aneb nedržme naše odborné znalosti pod pokličkou!* [An academic becomes a youtuber? Let's not keep our expertise under wraps!] [Poster presentation]. Open space konference, MUNI, Brno. https://is.muni.cz/do/rect/el/prezentace/osk2022/index.html#hulkova

Hůlková, I. (2020, February 23). *Slavné otevřené /æ/ v angličtině! Aneb BAT není BET ani BUT a DAD není DEAD!* [Famous open /æ/ in English! I.e. BAT is neither BET nor BUT and DAD is not DEAD!] [Video]. Youtube. https://www.youtube.com/watch?v=fdUMn4L5rvg

Hůlková, I. (2020, February 7). *Pozor na znělé souhlásky na konci anglických slov! Aneb záda nejsou taška a čepice není taxík :)* [Beware of voiced consonants at the end of English words! I.e. a back is not a bag and a cap is not a cab.] [Video]. Youtube. https://www.youtube.com/watch?v=zwemlj5gf3o

Hůlková, I. (2020, February 2). *Dvě velmi známé souhlásky v angličtině, v kterých se často chybuje! Aneb jak na výslovnost "TH"!* [Two famous English consonants that

are often misspelled! Or how to pronounce "TH"!] [Video]. Youtube. https://www.youtube.com/watch?v=ycpu6wYSktM

Hůlková, I. (2020, January 19). *Větný přízvuk v angličtině aneb jízda na horské dráze!* [Sentence stress in English: a roller-coaster ride!] [Video]. Youtube. https://www.youtube.com/watch?v=0YuFqIaOxWA

International Phonetic Association (2022, November 15). *Full IPA Chart.* https://www.internationalphoneticassociation.org/content/full-ipa-chart

Krčmová, M. (2010). *Úvod do fonetiky a fonologie pro bohemisty (Vyd. 3).* Ostravská univerzita v Ostravě.

Langrová, J. (2012). *Stress and Intelligibility: Pronunciation of Secondary School Students of English* [Masters diploma thesis.] Masaryk University.

Reimerová, K. (2022). *Extramural English: Czech Teachers' Experience from Upper Secondary Schools* [Masters diploma thesis.] Masaryk University.

Roach, P. (2009). *English phonetics and phonology: a practical course* (Fourth edition). Cambridge University Press.

Sauer, W. (2020). *A drillbook of English phonetics* (5th unrevised ed.). Universitätsverlag Winter.

Scrivener, J. (2011). *Learning teaching: the essential guide to English language teaching* (Third edition). Macmillan.

Skaličková, A. (1974). *Srovnávací fonetika angličtiny a češtiny.* Academia. http://www.ndk.cz/

Underhill, N. (1987). *Testing spoken language: a handbook of oral testing techniques.* Cambridge University Press.

Vocaroo. (2021). [Online app]. https://vocaroo.com/

Wang, Xue (2022). Segmental versus Suprasegmental: Which One is More Important to Teach? *RELC Journal,* Vol. 53 Issue 1, 194-202. https://doi.org/10.1177/0033688220925926

English Summary

This thesis deals with the use of educational videos to improve English pronunciation in Czech secondary schools during distance learning. The thesis examines the improvement of students who were subjected to watching educational videos by Mgr. Irena Hůlková, Ph.D. on correct English pronunciation. The aim of the study is to determine whether it is possible to improve students' English pronunciation exclusively by watching educational videos.

The thesis contains two main chapters. The first chapter focuses on the theoretical description, specification and analysis of the target issues of English pronunciation: correct pronunciation of selected sounds, voicing, and sentence stress. It also explains the difference between segmental and suprasegmental features of English, and touches upon the importance of the target accent.

The second chapter is dedicated to the research itself. It begins with the description of the procedure and methodology, and the research questions and hypotheses are stated. Following is an analysis of the environment the research experiment took place at, and a brief characterization of the participants. The main body of the thesis first presents the analysis of the videos and the questionnaire created. It also describes the practical realization of the research including the process of marking the recordings and subsequent evaluation. Then, the results of the research are illustrated using graphs and tables, commented upon and analysed. The conclusion is supported by the analytical data collected during the research.

Czech Summary

Tato práce se zabývá využitím edukačních videí pro zlepšení anglické výslovnosti na českých středních školách během distanční výuky. Práce zkoumá zlepšení studentů, kteří sledovali edukační videa Mgr. Ireny Hůlkové, Ph.D. na téma správné anglické výslovnosti. Cílem práce je zjistit, zda je možné zlepšit výslovnost pouze sledováním výukových videí.

Práce obsahuje dvě hlavní kapitoly. První kapitola je teoreticky zaměřená a nabízí popis a analýzu vybraných specifických jevů anglické výslovnosti. Mezi sledované jevy patří správná výslovnost vybraných hlásek, rozdíl mezi výslovností slov se znělými a neznělými souhláskami na konci, a bezchybné užití větného přízvuku. V této kapitole je mimo jiné vysvětlen rozdíl mezi segmentálními a suprasegmentálními aspekty jazyka, a není opomenut ani vliv výběru anglického přízvuku na výsledky výzkumu.

Druhá kapitola se věnuje samotnému výzkumu. Nejprve je podrobně popsán postup a metodika včetně uvedení výzkumných otázek a hypotéz. Následuje rozbor školního prostředí, v němž výzkumný experiment proběhl, a stručná charakteristika účastníků výzkumu. Stěžejní část práce se nejprve věnuje popisu edukačních videí a použitého dotazníku. Dále popisuje praktickou realizaci výzkumu včetně procesu hodnocení nahrávek a následného vyhodnocení výsledků. Výsledky výzkumu jsou poté ilustrovány pomocí grafů a tabulek, okomentovány a analyzovány. Závěr práce je podložen analytickými daty získanými během výzkumu.

Appendix A – Assessors' Text

Story of a Sad Bat

I am a white **bat**. My life isn't **bad**, but sometimes I am **sad**. I live with **three** other bats on a big **tree**. **They** are my friends.

One **day** a **cat** visited us. She **had** a white **hat** on her **head**. **She** sat close to me and asked me:

"What are you having for lunch?"

"A **cup** of tea," I **said**. "What happened to your hair?"

"I **had** to **cut** my hair because it was really **thick** and there was a **tick** in it! That's why I'm wearing the **hat**!"

"I **bet** your hair was beautiful,"

I **said** and offered her a **cup** of tea.

"My **dad** also **had** nice hair and he always kept it neat. But now he is **dead**."

"Oh my **god**, I'm so sorry! How did he die?" asked the **cat**.

"He passed in his **bed**." I replied. "But I think about him every **day**."

I also have **got** a **cap** which belonged to my father. I really like the **cap**, but I should **save** it in a **safe**.

And this is the **end** of the story.

Note:
3x: bat, had
2x: sad, say, cat, hat, said, cup, day, cap
1x: bad, three, tree, they, cut, thick, tick, bet, dad, dead, god, bed, got, save, safe, end

Appendix B – Assessors' Marking Protocol

Minimal pairs - voiced / voiceless consonants	1st rec.	2nd rec.
bad /bæd/ - bat /bæt/		
bed /bed/ - bet /bet/		
had /hæd/ - hat /hæt/		
sad /sæd/ - sat /sæt/		
save /seɪv/ - safe /seɪf/		
god /gɒd/ - got /gɒt/		

Minimal pairs - schwa /ə/ and /e/ or /ʌ/	1st rec.	2nd rec.
sad /sæd/ - said /sed/		
dad /dæd/ - dead /ded/		
had /hæd/ - head /hed/		
cap /kæp/ - cup /kʌp/		
cat /kæt/ - cut /kʌt/		

Minimal pairs - /θ/, /ð/ and /t/	1st rec.	2nd rec.
three /θriː/ - tree /triː/		
thick /θɪk/ - tick /tɪk/		
they /ðeɪ/ - day /deɪ/		

Sentence stress	1st recording	2nd recording
What are you having for lunch?		
What happened to your hair?		
I bet your hair was beautiful,		
But I think about him every day.		
And this is the end of the story.		

Appendix C – Individual Students' Results

Student	Andrew			Alice			Anett			Alan		
Minimal pairs - voiced / voiceless consonants	**1st recording**	**2nd recording**	**progress**	**1st recording**	**2nd recording**	**progress**	**1st recording**	**2nd recording**	**progress**	**1st recording**	**2nd recording**	**progress**
bad /bæd/ - bat /bæt/	2	2	0	2	3	1	1	2	1	3	1	-2
bed /bed/ - bet /bet/	1	1	0	3	2	-1	2	1	-1	3	2	-1
had /hæd/ - hat /hæt/	1	1	0	2	2	0	2	1	-1	2	1	-1
sad /sæd/ - sat /sæt/	1	2	1	3	1	-2	1	2	1	2	2	0
save /seɪv/ - safe /seɪf/	2	2	0	1	1	0	1	1	0	1	1	0
god /gɒd/ - got /gɒt/	1	1	0	5	5	0	5	5	0	3	3	0
Minimal pairs - ash /æ/ and /e/ or /ʌ/	**1st recording**	**2nd recording**	**progress**	**1st recording**	**2nd recording**	**progress**	**1st recording**	**2nd recording**	**progress**	**1st recording**	**2nd recording**	**progress**
sad /sæd/ - said /sed/	1	1	0	3	4	1	1	1	0	3	1	-2
dad /dæd/ - dead /ded/	1	2	1	5	7	2	3	3	0	3	3	0
had /hæd/ - head /hed/	1	1	0	4	4	0	4	3	-1	4	3	-1
cap /kæp/ - cup /kʌp/	2	2	0	4	4	0	5	6	1	4	4	0
cat /kæt/ - cut /kʌt/	2	2	0	5	5	0	2	2	0	4	4	0
Minimal pairs - /θ/, /ð/ and /t/	**1st recording**	**2nd recording**	**progress**	**1st recording**	**2nd recording**	**progress**	**1st recording**	**2nd recording**	**progress**	**1st recording**	**2nd recording**	**progress**
three /θri:/ - tree /tri:/	1	1	0	4	6	2	2	4	2	1	3	2
thick /θɪk/ - tick /tɪk/	2	1	-1	6	8	2	2	3	1	2	2	0
they /ðeɪ/ - day /deɪ/	1	1	0	3	3	0	2	4	2	1	4	3
Sentence stress	**1st recording**	**2nd recording**	**progress**	**1st recording**	**2nd recording**	**progress**	**1st recording**	**2nd recording**	**progress**	**1st recording**	**2nd recording**	**progress**
What are you having for lunch?	1	1	0	1	4	3	3	4	1	2	1	-1
What happened to your hair?	1	1	0	1	3	2	4	4	0	2	1	-1
I bet your hair was beautiful,	1	1	0	2	2	0	1	2	1	1	1	0
But I think about him every day.	1	1	0	1	2	1	1	1	0	1	1	0
And this is the end of the story.	1	1	0	1	1	0	1	1	0	1	1	0

Student	Astra			Ashton			Audrey			Alex		
Minimal pairs - voiced / voiceless consonants	**1st recording**	**2nd recording**	**progress**	**1st recording**	**2nd recording**	**progress**	**1st recording**	**2nd recording**	**progress**	**1st recording**	**2nd recording**	**progress**
bad /bæd/ - bat /bæt/	3	2	-1	1	1	0	1	7	6	1	1	0
bed /bed/ - bet /bet/	2	4	2	2	2	0	1	1	0	1	1	0
had /hæd/ - hat /hæt/	4	6	2	4	5	1	6	8	2	1	1	0
sad /sæd/ - sat /sæt/	5	5	0	1	4	3	1	1	0	1	1	0
save /seɪv/ - safe /seɪf/	1	1	0	3	2	-1	1	1	0	1	1	0
god /gɒd/ - got /gɒt/	2	2	0	4	5	1	6	3	-3	2	2	0
Minimal pairs - ash /æ/ and /e/ or /ʌ/	**1st recording**	**2nd recording**	**progress**	**1st recording**	**2nd recording**	**progress**	**1st recording**	**2nd recording**	**progress**	**1st recording**	**2nd recording**	**progress**
sad /sæd/ - said /sed/	2	4	2	2	3	1	1	1	0	1	1	0
dad /dæd/ - dead /ded/	4	3	-1	4	2	-2	4	4	0	1	2	1
had /hæd/ - head /hed/	2	5	3	4	6	2	3	5	2	1	1	0
cap /kæp/ - cup /kʌp/	1	1	0	4	4	0	3	3	0	2	2	0
cat /kæt/ - cut /kʌt/	4	4	0	4	4	0	6	5	-1	2	2	0
Minimal pairs - /θ/, /ð/ and /t/	**1st recording**	**2nd recording**	**progress**	**1st recording**	**2nd recording**	**progress**	**1st recording**	**2nd recording**	**progress**	**1st recording**	**2nd recording**	**progress**
three /θri:/ - tree /tri:/	5	7	2	3	2	-1	5	6	1	3	2	-1
thick /θɪk/ - tick /tɪk/	6	8	2	7	9	2	8	8	0	1	1	0
they /ðeɪ/ - day /deɪ/	5	3	-2	3	3	0	3	3	0	1	1	0
Sentence stress	**1st recording**	**2nd recording**	**progress**	**1st recording**	**2nd recording**	**progress**	**1st recording**	**2nd recording**	**progress**	**1st recording**	**2nd recording**	**progress**
What are you having for lunch?	4	5	1	3	5	2	5	5	0	2	2	0
What happened to your hair?	5	6	1	2	3	1	5	5	0	1	1	0
I bet your hair was beautiful,	3	3	0	2	2	0	3	4	1	1	1	0
But I think about him every day.	3	4	1	2	3	1	3	4	1	2	1	-1
And this is the end of the story.	3	3	0	3	3	0	3	3	0	1	2	1

APPENDIX C – INDIVIDUAL STUDENTS' RESULTS

Student	Barnes			Brady			Betty			Brett		
Minimal pairs - voiced / voiceless consonants	**1st recording**	**2nd recording**	**progress**	**1st recording**	**2nd recording**	**progress**	**1st recording**	**2nd recording**	**progress**	**1st recording**	**2nd recording**	**progress**
bad /bæd/ - bat /bæt/	1	1	0	5	6	1	2	1	-1	1	2	1
bed /bed/ - bet /bet/	1	2	1	2	3	1	4	5	1	1	2	1
had /hæd/ - hat /hæt/	1	1	0	5	6	1	2	2	0	1	2	1
sad /sæd/ - sat /sæt/	1	4	3	4	5	1	3	3	0	1	1	0
save /seɪv/ - safe /seɪf/	1	3	2	1	1	0	1	1	0	1	1	0
god /gɒd/ - got /gɒt/	4	2	-2	1	1	0	5	5	0	2	4	2
Minimal pairs - ash /æ/ and /e/ or /ʌ/	**1st recording**	**2nd recording**	**progress**	**1st recording**	**2nd recording**	**progress**	**1st recording**	**2nd recording**	**progress**	**1st recording**	**2nd recording**	**progress**
sad /sæd/ - said /sed/	1	1	0	5	6	1	3	3	0	1	1	0
dad /dæd/ - dead /ded/	2	1	-1	2	2	0	5	5	0	1	2	1
had /hæd/ - head /hed/	1	1	0	7	7	0	2	5	3	1	2	1
cap /kæp/ - cup /kʌp/	3	3	0	2	4	2	4	6	2	1	1	0
cat /kæt/ - cut /kʌt/	2	2	0	2	2	0	4	4	0	1	1	0
Minimal pairs - /θ, /ð/ and /t/	**1st recording**	**2nd recording**	**progress**	**1st recording**	**2nd recording**		**1st recording**	**2nd recording**	**progress**	**1st recording**	**2nd recording**	**progress**
three /θriː/ - tree /triː/	4	4	0	5	5	0	4	2	-2	2	2	0
thick /θɪk/ - tick /tɪk/	3	5	2	2	6	4	3	4	1	2	4	2
they /ðeɪ/ - day /deɪ/	1	1	0	3	3	0	3	3	0	5	5	0
Sentence stress	**1st recording**	**2nd recording**	**progress**	**1st recording**	**2nd recording**		**1st recording**	**2nd recording**	**progress**	**1st recording**	**2nd recording**	**progress**
What are you having for lunch?	4	3	-1	6	4	-2	2	4	2	7	8	1
What happened to your hair?	4	3	-1	5	4	-1	1	3	2	7	8	1
I bet your hair was beautiful,	2	6	4	4	3	-1	2	2	0	6	8	2
But I think about him every day.	2	3	1	4	3	-1	4	4	0	3	4	1
And this is the end of the story.	3	3	0	4	3	-1	2	3	1	2	3	1

Student	Carlene			Carol			Casey			Cecilia		
Minimal pairs - voiced / voiceless consonants	**1st recording**	**2nd recording**	**progress**	**1st recording**	**2nd recording**	**progress**	**1st recording**	**2nd recording**	**progress**	**1st recording**	**2nd recording**	**progress**
bad /bæd/ - bat /bæt/	1	4	3	2	2	0	3	5	2	1	1	0
bed /bed/ - bet /bet/	2	1	-1	1	1	0	1	2	1	2	1	-1
had /hæd/ - hat /hæt/	2	4	2	2	3	1	1	2	1	2	2	0
sad /sæd/ - sat /sæt/	2	5	3	1	2	1	1	2	1	1	1	0
save /seɪv/ - safe /seɪf/	5	6	1	1	2	1	1	1	0	1	1	0
god /gɒd/ - got /gɒt/	5	5	0	4	5	1	5	5	0	4	5	1
Minimal pairs - ash /æ/ and /e/ or /ʌ/	**1st recording**	**2nd recording**	**progress**	**1st recording**	**2nd recording**		**1st recording**	**2nd recording**		**1st recording**	**2nd recording**	
sad /sæd/ - said /sed/	2	3	1	2	2	0	3	6	3	1	1	0
dad /dæd/ - dead /ded/	2	4	2	1	2	1	1	1	0	1	1	0
had /hæd/ - head /hed/	4	4	0	3	4	1	1	1	0	1	1	0
cap /kæp/ - cup /kʌp/	1	4	3	2	5	3	1	1	0	2	2	0
cat /kæt/ - cut /kʌt/	2	1	-1	2	2	0	1	2	1	2	2	0
Minimal pairs - /θ, /ð/ and /t/	**1st recording**	**2nd recording**		**1st recording**	**2nd recording**		**1st recording**	**2nd recording**		**1st recording**	**2nd recording**	
three /θriː/ - tree /triː/	5	5	0	3	3	0	1	1	0	3	4	1
thick /θɪk/ - tick /tɪk/	7	7	0	5	6	1	6	7	1	6	7	1
they /ðeɪ/ - day /deɪ/	1	1	0	3	3	0	4	3	-1	4	5	1
Sentence stress	**1st recording**	**2nd recording**		**1st recording**	**2nd recording**		**1st recording**	**2nd recording**		**1st recording**	**2nd recording**	
What are you having for lunch?	5	4	-1	4	4	0	2	1	-1	4	5	1
What happened to your hair?	4	5	1	3	4	1	2	1	-1	5	4	-1
I bet your hair was beautiful,	2	3	1	2	2	0	1	1	0	3	3	0
But I think about him every day.	3	3	0	2	3	1	2	2	0	4	3	-1
And this is the end of the story.	3	3	0	2	2	0	1	2	1	4	2	-2

Student	Clara			Clint			Cora			Cristine		
Minimal pairs - voiced / voiceless consonants	**1st recording**	**2nd recording**	**progress**	**1st recording**	**2nd recording**	**progress**	**1st recording**	**2nd recording**	**progress**	**1st recording**	**2nd recording**	**progress**
bad /bæd/ - bat /bæt/	1	1	0	8	10	2	6	8	2	6	8	2
bed /bed/ - bet /bet/	1	1	0	7	8	1	1	4	3	1	4	3
had /hæd/ - hat /hæt/	1	1	0	3	2	-1	8	2	-6	1	1	0
sad /sæd/ - sat /sæt/	1	1	0	4	6	2	9	10	1	7	8	1
save /seɪv/ - safe /seɪf/	1	1	0	9	10	1	6	4	-2	1	1	0
god /gɒd/ - got /gɒt/	2	1	-1	7	8	1	8	9	1	5	7	2
Minimal pairs - ash /æ/ and /e/ or /ʌ/	**1st recording**	**2nd recording**		**1st recording**	**2nd recording**		**1st recording**	**2nd recording**		**1st recording**	**2nd recording**	
sad /sæd/ - said /sed/	1	1	0	8	10	2	1	7	6	4	3	-1
dad /dæd/ - dead /ded/	3	5	2	3	5	2	3	3	0	2	2	0
had /hæd/ - head /hed/	1	1	0	7	7	0	5	5	0	4	4	0
cap /kæp/ - cup /kʌp/	4	4	0	5	7	2	2	3	1	6	8	2
cat /kæt/ - cut /kʌt/	2	2	0	6	6	0	6	6	0	8	8	0
Minimal pairs - /θ, /ð/ and /t/	**1st recording**	**2nd recording**		**1st recording**	**2nd recording**		**1st recording**	**2nd recording**		**1st recording**	**2nd recording**	
three /θriː/ - tree /triː/	3	3	0	4	4	0	1	1	0	1	1	0
thick /θɪk/ - tick /tɪk/	7	6	-1	4	7	3	1	3	2	1	1	0
they /ðeɪ/ - day /deɪ/	5	6	1	5	5	0	5	5	0	4	5	1
Sentence stress	**1st recording**	**2nd recording**		**1st recording**	**2nd recording**		**1st recording**	**2nd recording**		**1st recording**	**2nd recording**	
What are you having for lunch?	3	6	3	3	4	1	6	8	2	4	4	0
What happened to your hair?	2	5	3	5	5	0	4	8	4	3	4	1
I bet your hair was beautiful,	3	7	4	3	3	0	2	3	1	6	8	2
But I think about him every day.	2	4	2	3	4	1	2	3	1	3	2	-1
And this is the end of the story.	3	3	0	4	5	1	3	2	-1	4	5	1

Student	Daisy			Dakota			Daniel			Daphne		
Minimal pairs - voiced / voiceless consonants	**1st recording**	**2nd recording**	**progress**	**1st recording**	**2nd recording**	**progress**	**1st recording**	**2nd recording**	**progress**	**1st recording**	**2nd recording**	**progress**
bad /bæd/ - bat /bæt/	8	8	0	6	5	-1	3	5	2	4	1	-3
bed /bed/ - bet /bet/	8	9	1	4	4	0	3	5	2	7	1	-6
had /hæd/ - hat /hæt/	9	10	1	2	2	0	7	7	0	5	7	2
sad /sæd/ - sat /sæt/	7	10	3	7	8	1	8	9	1	6	6	0
save /seɪv/ - safe /seɪf/	0	0	0	1	4	3	1	1	0	1	1	0
god /gɒd/ - got /gɒt/	8	8	0	5	6	1	8	8	0	0	0	0
Minimal pairs - ash /æ/ and /e/ or /ʌ/	**1st recording**	**2nd recording**		**1st recording**	**2nd recording**		**1st recording**	**2nd recording**		**1st recording**	**2nd recording**	
sad /sæd/ - said /sed/	8	9	1	6	7	1	3	3	0	4	1	-3
dad /dæd/ - dead /ded/	9	9	0	4	3	-1	2	4	2	6	8	2
had /hæd/ - head /hed/	8	9	1	3	4	1	5	6	1	4	8	4
cap /kæp/ - cup /kʌp/	8	8	0	1	1	0	1	2	1	1	1	0
cat /kæt/ - cut /kʌt/	2	7	5	5	5	0	8	8	0	3	3	0
Minimal pairs - /θ, /ð/ and /t/	**1st recording**	**2nd recording**		**1st recording**	**2nd recording**		**1st recording**	**2nd recording**		**1st recording**	**2nd recording**	
three /θriː/ - tree /triː/	3	4	1	3	3	0	4	6	2	3	3	0
thick /θɪk/ - tick /tɪk/	7	10	3	2	3	1	9	10	1	1	1	0
they /ðeɪ/ - day /deɪ/	4	4	0	5	5	0	6	7	1	6	5	-1
Sentence stress	**1st recording**	**2nd recording**		**1st recording**	**2nd recording**		**1st recording**	**2nd recording**		**1st recording**	**2nd recording**	
What are you having for lunch?	5	5	0	4	4	0	2	3	1	3	4	1
What happened to your hair?	5	5	0	6	7	1	3	7	4	2	2	0
I bet your hair was beautiful,	7	8	1	7	7	0	3	3	0	1	2	1
But I think about him every day.	6	7	1	3	4	1	4	4	0	2	2	0
And this is the end of the story.	8	8	0	3	3	0	5	3	-2	0	0	0

Student	David			Desmond			Diana			Dylan		
Minimal pairs - voiced / voiceless consonants	**1st recording**	**2nd recording**	**progress**	**1st recording**	**2nd recording**	**progress**	**1st recording**	**2nd recording**	**progress**	**1st recording**	**2nd recording**	**progress**
bad /bæd/ - bat /bæt/	1	1	0	4	5	1	1	2	1	1	1	0
bed /bed/ - bet /bet/	1	3	2	1	1	0	2	2	0	1	1	0
had /hæd/ - hat /hæt/	1	1	0	6	6	0	6	6	0	1	2	1
sad /sæd/ - sat /sæt/	2	2	0	5	6	1	8	7	-1	2	1	-1
save /seɪv/ - safe /seɪf/	1	1	0	1	1	0	1	1	0	1	1	0
god /gɒd/ - got /gɒt/	4	6	2	4	5	1	8	8	0	2	1	-1
Minimal pairs - ash /æ/ and /e/ or /ʌ/	**1st recording**	**2nd recording**		**1st recording**	**2nd recording**		**1st recording**	**2nd recording**		**1st recording**	**2nd recording**	
sad /sæd/ - said /sed/	3	1	-2	4	3	-1	4	5	1	2	1	-1
dad /dæd/ - dead /ded/	2	2	0	1	1	0	6	7	1	1	1	0
had /hæd/ - head /hed/	5	5	0	2	2	0	7	5	-2	1	1	0
cap /kæp/ - cup /kʌp/	7	7	0	5	6	1	3	3	0	2	2	0
cat /kæt/ - cut /kʌt/	4	3	-1	5	6	1	5	5	0	1	2	1
Minimal pairs - /θ, /ð/ and /t/	**1st recording**	**2nd recording**		**1st recording**	**2nd recording**		**1st recording**	**2nd recording**		**1st recording**	**2nd recording**	
three /θriː/ - tree /triː/	3	3	0	2	2	0	6	6	0	1	1	0
thick /θɪk/ - tick /tɪk/	6	6	0	2	1	-1	8	8	0	2	2	0
they /ðeɪ/ - day /deɪ/	2	3	1	7	7	0	7	7	0	2	2	0
Sentence stress	**1st recording**	**2nd recording**		**1st recording**	**2nd recording**		**1st recording**	**2nd recording**		**1st recording**	**2nd recording**	
What are you having for lunch?	7	5	-2	4	7	3	5	6	1	2	1	-1
What happened to your hair?	5	5	0	3	5	2	5	5	0	2	1	-1
I bet your hair was beautiful,	2	3	1	2	2	0	4	5	1	2	1	-1
But I think about him every day.	2	4	2	2	4	2	6	6	0	1	1	0
And this is the end of the story.	2	5	3	3	4	1	4	4	0	2	1	-1

Student	Eleanor			Eliah			Emma			Ethan		
Minimal pairs - voiced / voiceless consonants	**1st recording**	**2nd recording**	**progress**	**1st recording**	**2nd recording**	**progress**	**1st recording**	**2nd recording**	**progress**	**1st recording**	**2nd recording**	**progress**
bad /bæd/ - bat /bæt/	1	1	0	9	9	0	3	1	-2	9	10	1
bed /bed/ - bet /bet/	2	3	1	9	9	0	2	2	0	8	7	-1
had /hæd/ - hat /hæt/	6	7	1	7	9	2	7	8	1	10	10	0
sad /sæd/ - sat /sæt/	6	7	1	9	9	0	4	4	0	9	9	0
save /seɪv/ - safe /seɪf/	8	8	0	9	10	1	1	1	0	10	10	0
god /gɒd/ - got /gɒt/	4	4	0	5	5	0	4	1	-3	9	10	1
Minimal pairs - ash /æ/ and /e/ or /ʌ/	**1st recording**	**2nd recording**		**1st recording**	**2nd recording**		**1st recording**	**2nd recording**		**1st recording**	**2nd recording**	
sad /sæd/ - said /sed/	4	4	0	7	9	2	3	3	0	9	10	1
dad /dæd/ - dead /ded/	4	4	0	6	8	2	2	1	-1	5	5	0
had /hæd/ - head /hed/	3	3	0	9	10	1	4	4	0	9	9	0
cap /kæp/ - cup /kʌp/	1	1	0	7	7	0	2	1	-1	9	9	0
cat /kæt/ - cut /kʌt/	3	3	0	8	8		1	4	3	6	8	2
Minimal pairs - /θ, /ð/ and /t/	**1st recording**	**2nd recording**		**1st recording**	**2nd recording**		**1st recording**	**2nd recording**		**1st recording**	**2nd recording**	
three /θriː/ - tree /triː/	1	1	0	2	2	0	3	3	0	8	8	0
thick /θɪk/ - tick /tɪk/	2	2	0	8	9	1	1	1	0	10	10	0
they /ðeɪ/ - day /deɪ/	4	4	0	6	7	1	5	5	0	9	9	0
Sentence stress	**1st recording**	**2nd recording**		**1st recording**	**2nd recording**		**1st recording**	**2nd recording**		**1st recording**	**2nd recording**	
What are you having for lunch?	8	8	0	7	8	1	2	4	2	3	4	1
What happened to your hair?	7	8	1	8	8	0	2	4	2	6	6	0
I bet your hair was beautiful,	7	6	-1	5	7	2	2	5	3	5	6	1
But I think about him every day.	6	6	0	8	8	0	4	5	1	4	4	0
And this is the end of the story.	6	6	0	8	7	-1	3	5	2	6	7	1

Student	Ezra			Faith			Fawkes			Fay		
Minimal pairs - voiced / voiceless consonants	**1st recording**	**2nd recording**	**progress**	**1st recording**	**2nd recording**	**progress**	**1st recording**	**2nd recording**	**progress**	**1st recording**	**2nd recording**	**progress**
bad /bæd/ - bat /bæt/	2	2	0	2	1	-1	1	6	5	3	2	-1
bed /bed/ - bet /bet/	8	8	0	3	3	0	1	6	5	1	1	0
had /hæd/ - hat /hæt/	3	3	0	5	6	1	2	7	5	2	2	0
sad /sæd/ - sat /sæt/	8	8	0	2	2	0	3	8	5	2	4	2
save /seɪv/ - safe /seɪf/	10	9	-1	0	0	0	1	1	0	1	1	0
god /gɒd/ - got /gɒt/	7	6	-1	5	6	1	4	7	3	6	6	0
Minimal pairs - ash /æ/ and /e/ or /ʌ/	**1st recording**	**2nd recording**		**1st recording**	**2nd recording**		**1st recording**	**2nd recording**		**1st recording**	**2nd recording**	
sad /sæd/ - said /sed/	5	4	-1	2	1	-1	1	5	4	4	3	-1
dad /dæd/ - dead /ded/	7	6	-1	2	1	-1	2	5	3	3	3	0
had /hæd/ - head /hed/	3	2	-1	3	4	1	1	6	5	2	2	0
cap /kæp/ - cup /kʌp/	7	6	-1	2	2	0	4	7	3	5	6	1
cat /kæt/ - cut /kʌt/	3	4	1	1	2	1	4	7	3	3	3	0
Minimal pairs - /θ, /ð/ and /t/	**1st recording**	**2nd recording**		**1st recording**	**2nd recording**		**1st recording**	**2nd recording**		**1st recording**	**2nd recording**	
three /θri:/ - tree /tri:/	2	2	0	1	2	1	3	5	2	2	2	0
thick /θɪk/ - tick /tɪk/	8	9	1	1	2	1	7	5	-2	5	5	0
they /ðeɪ/ - day /deɪ/	3	3	0	3	3	0	5	6	1	4	5	1
Sentence stress	**1st recording**	**2nd recording**		**1st recording**	**2nd recording**		**1st recording**	**2nd recording**		**1st recording**	**2nd recording**	
What are you having for lunch?	4	4	0	1	3	2	1	2	1	5	4	-1
What happened to your hair?	5	5	0	1	3	2	1	2	1	7	5	-2
I bet your hair was beautiful,	4	4	0	2	2	0	1	2	1	6	7	1
But I think about him every day.	4	5	1	2	2	0	1	3	2	2	2	0
And this is the end of the story.	6	7	1	2	2	0	1	5	4	3	4	1

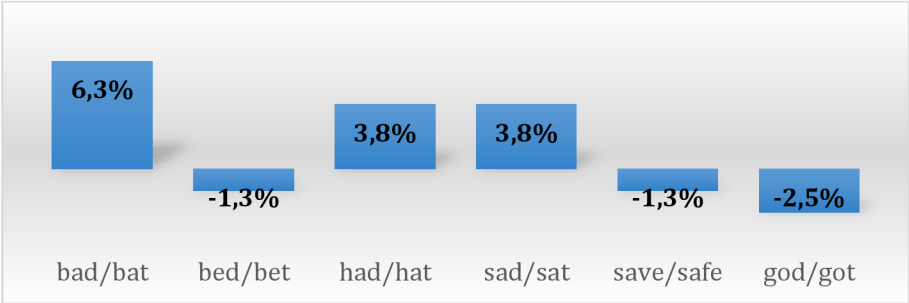
Student	Felicity			Felix			Fernanda			Fiona		
Minimal pairs - voiced / voiceless consonants	**1st recording**	**2nd recording**	**progress**	**1st recording**	**2nd recording**	**progress**	**1st recording**	**2nd recording**	**progress**	**1st recording**	**2nd recording**	**progress**
bad /bæd/ - bat /bæt/	2	2	0	1	1	0	3	8	5	1	1	0
bed /bed/ - bet /bet/	2	2	0	1	1	0	1	1	0	3	3	0
had /hæd/ - hat /hæt/	7	10	3	3	3	0	1	8	7	1	1	0
sad /sæd/ - sat /sæt/	3	5	2	1	2	1	2	7	5	2	3	1
save /seɪv/ - safe /seɪf/	1	1	0	1	1	0	1	1	0	3	1	-2
god /gɒd/ - got /gɒt/	5	8	3	4	4	0	7	7	0	5	5	0
Minimal pairs - ash /æ/ and /e/ or /ʌ/	**1st recording**	**2nd recording**		**1st recording**	**2nd recording**		**1st recording**	**2nd recording**		**1st recording**	**2nd recording**	
sad /sæd/ - said /sed/	5	8	3	1	2	1	1	8	7	2	1	-1
dad /dæd/ - dead /ded/	4	8	4	1	1	0	1	2	1	2	1	-1
had /hæd/ - head /hed/	5	8	3	5	5	0	1	7	6	2	3	1
cap /kæp/ - cup /kʌp/	2	9	7	2	1	-1	5	7	2	1	1	0
cat /kæt/ - cut /kʌt/	2	8	6	2	2	0	6	6	0	2	2	0
Minimal pairs - /θ, /ð/ and /t/	**1st recording**	**2nd recording**		**1st recording**	**2nd recording**		**1st recording**	**2nd recording**		**1st recording**	**2nd recording**	
three /θri:/ - tree /tri:/	3	5	2	3	3	0	3	2	-1	4	3	-1
thick /θɪk/ - tick /tɪk/	8	10	2	3	7	4	4	7	3	6	7	1
they /ðeɪ/ - day /deɪ/	3	6	3	5	5	0	2	3	1	2	4	2
Sentence stress	**1st recording**	**2nd recording**		**1st recording**	**2nd recording**		**1st recording**	**2nd recording**		**1st recording**	**2nd recording**	
What are you having for lunch?	3	7	4	4	6	2	4	5	1	2	3	1
What happened to your hair?	1	5	4	4	6	2	5	4	-1	3	4	1
I bet your hair was beautiful,	2	5	3	6	7	1	6	6	0	5	3	-2
But I think about him every day.	5	7	2	3	3	0	2	3	1	2	3	1
And this is the end of the story.	8	9	1	2	1	-1	2	2	0	4	3	-1

Student	Florence			Frances			Freya			Frida		
Minimal pairs - voiced / voiceless consonants	**1st recording**	**2nd recording**	**progress**	**1st recording**	**2nd recording**	**progress**	**1st recording**	**2nd recording**	**progress**	**1st recording**	**2nd recording**	**progress**
bad /bæd/ - bat /bæt/	1	1	0	2	2	0	1	4	3	1	3	2
bed /bed/ - bet /bet/	4	6	2	2	3	1	1	1	0	2	1	-1
had /hæd/ - hat /hæt/	1	1	0	1	1	0	3	3	0	0	0	0
sad /sæd/ - sat /sæt/	2	3	1	2	2	0	2	2	0	1	1	0
save /seɪv/ - safe /seɪf/	1	1	0	1	1	0	0	1	1	1	1	0
god /gɒd/ - got /gɒt/	5	5	0	4	5	1	0	0	0	4	4	0
Minimal pairs - ash /æ/ and /e/ or /ʌ/	**1st recording**	**2nd recording**		**1st recording**	**2nd recording**		**1st recording**	**2nd recording**		**1st recording**		
sad /sæd/ - said /sed/	3	3	0	1	1	0	1	5	4	2	3	1
dad /dæd/ - dead /ded/	2	2	0	3	1	-2	1	1	0	0	1	1
had /hæd/ - head /hed/	1	1	0	1	1	0	3	5	2	0	0	0
cap /kæp/ - cup /kʌp/	3	5	2	2	3	1	2	2	0	2	2	0
cat /kæt/ - cut /kʌt/	3	3	0	2	3	1	3	1	-2	2	2	0
Minimal pairs - /θ, /ð/ and /t/	**1st recording**	**2nd recording**		**1st recording**	**2nd recording**		**1st recording**	**2nd recording**		**1st recording**	**2nd recording**	
three /θriː/ - tree /triː/	2	2	0	1	1	0	1	1	0	3	1	-2
thick /θɪk/ - tick /tɪk/	2	3	1	6	6	0	3	5	2	1	1	0
they /ðeɪ/ - day /deɪ/	4	4	0	4	4	0	2	3	1	3	3	0
Sentence stress	**1st recording**	**2nd recording**		**1st recording**	**2nd recording**		**1st recording**	**2nd recording**		**1st recording**	**2nd recording**	
What are you having for lunch?	1	3	2	3	3	0	5	6	1	5	3	-2
What happened to your hair?	1	5	4	4	4	0	4	6	2	2	2	0
I bet your hair was beautiful,	2	2	0	2	5	3	4	3	-1	2	1	-1
But I think about him every day.	1	2	1	2	1	-1	4	3	-1	2	2	0
And this is the end of the story.	2	2	0	2	3	1	3	2	-1	3	1	-2

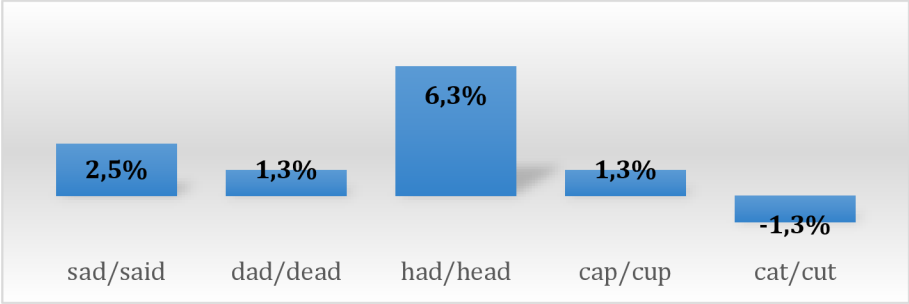
Student	Gabriela			Gemma			George			Ginny		
Minimal pairs - voiced / voiceless consonants	**1st recording**	**2nd recording**	**progress**	**1st recording**	**2nd recording**	**progress**	**1st recording**	**2nd recording**	**progress**	**1st recording**	**2nd recording**	**progress**
bad /bæd/ - bat /bæt/	1	1	0	1	5	4	1	4	3	1	1	0
bed /bed/ - bet /bet/	1	1	0	4	4	0	2	2	0	2	2	0
had /hæd/ - hat /hæt/	1	4	3	1	2	1	7	8	1	3	3	0
sad /sæd/ - sat /sæt/	4	4	0	5	6	1	8	7	-1	2	2	0
save /seɪv/ - safe /seɪf/	7	8	1	1	7	6	9	9	0	1	7	6
god /gɒd/ - got /gɒt/	6	5	-1	5	7	2	8	8	0	6	7	1
Minimal pairs - ash /æ/ and /e/ or /ʌ/	**1st recording**	**2nd recording**		**1st recording**	**2nd recording**		**1st recording**	**2nd recording**		**1st recording**	**2nd recording**	
sad /sæd/ - said /sed/	4	4	0	2	2	0	6	4	-2	2	1	-1
dad /dæd/ - dead /ded/	2	2	0	1	1	0	6	8	2	4	3	-1
had /hæd/ - head /hed/	1	2	1	1	3	2	7	8	1	1	2	1
cap /kæp/ - cup /kʌp/	3	3	0	2	3	1	4	4	0	3	3	0
cat /kæt/ - cut /kʌt/	2	2	0	2	2	0	3	4	1	3	4	1
Minimal pairs - /θ, /ð/ and /t/	**1st recording**	**2nd recording**		**1st recording**	**2nd recording**		**1st recording**	**2nd recording**		**1st recording**	**2nd recording**	
three /θriː/ - tree /triː/	3	2	-1	3	4	1	3	3	0	3	3	0
thick /θɪk/ - tick /tɪk/	9	9	0	6	7	1	9	9	0	9	8	-1
they /ðeɪ/ - day /deɪ/	5	6	1	5	5	0	5	5	0	5	5	0
Sentence stress	**1st recording**	**2nd recording**		**1st recording**	**2nd recording**		**1st recording**	**2nd recording**		**1st recording**	**2nd recording**	
What are you having for lunch?	2	3	1	6	6	0	4	4	0	2	2	0
What happened to your hair?	2	3	1	7	7	0	6	4	-2	2	2	0
I bet your hair was beautiful,	2	4	2	4	5	1	4	3	-1	6	7	1
But I think about him every day.	3	3	0	7	8	1	6	5	-1	4	3	-1
And this is the end of the story.	2	5	3	3	5	2	7	5	-2	6	3	-3

Student	Grace		
Minimal pairs - voiced / voiceless consonants	**1st recording**	**2nd recording**	**progress**
bad /bæd/ - bat /bæt/	9	8	-1
bed /bed/ - bet /bet/	8	10	2
had /hæd/ - hat /hæt/	10	10	0
sad /sæd/ - sat /sæt/	9	10	1
save /seɪv/ - safe /seɪf/	10	10	0
god /gɒd/ - got /gɒt/	9	10	1
Minimal pairs - ash /æ/ and /e/ or /ʌ/	**1st recording**	**2nd recording**	
sad /sæd/ - said /sed/	9	9	0
dad /dæd/ - dead /ded/	9	9	0
had /hæd/ - head /hed/	9	10	1
cap /kæp/ - cup /kʌp/	9	9	0
cat /kæt/ - cut /kʌt/	8	8	0
Minimal pairs - /θ, /ð/ and /t/	**1st recording**	**2nd recording**	
three /θri:/ - tree /tri:/	4	7	3
thick /θɪk/ - tick /tɪk/	8	9	1
they /ðeɪ/ - day /deɪ/	7	8	1
Sentence stress	**1st recording**	**2nd recording**	
What are you having for lunch?	8	9	1
What happened to your hair?	8	9	1
I bet your hair was beautiful,	9	10	1
But I think about him every day.	9	9	0
And this is the end of the story.	10	10	0

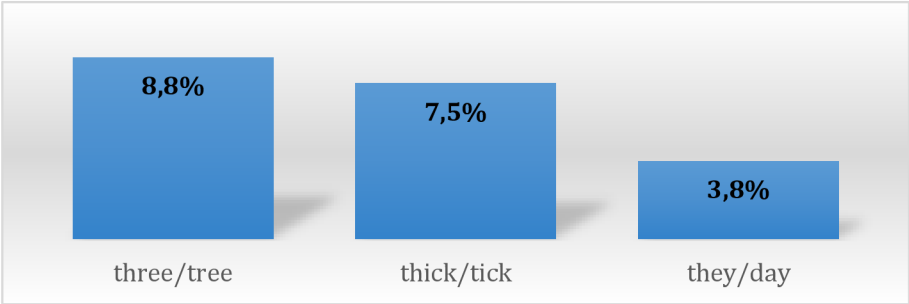
Appendix D – Separate Classes Results



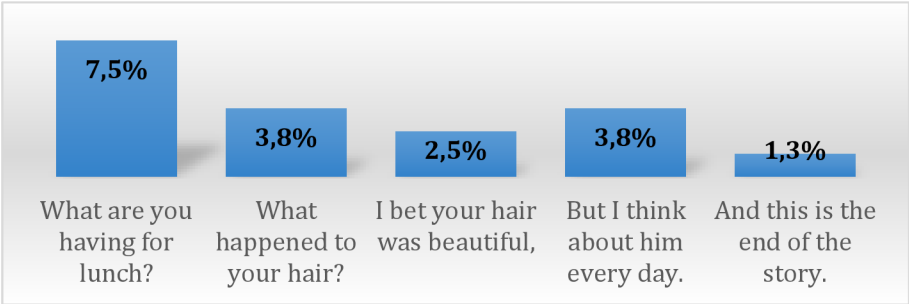
Class A voiced / voiceless consonant



Class A ash /æ/ and /e/ or /ʌ/

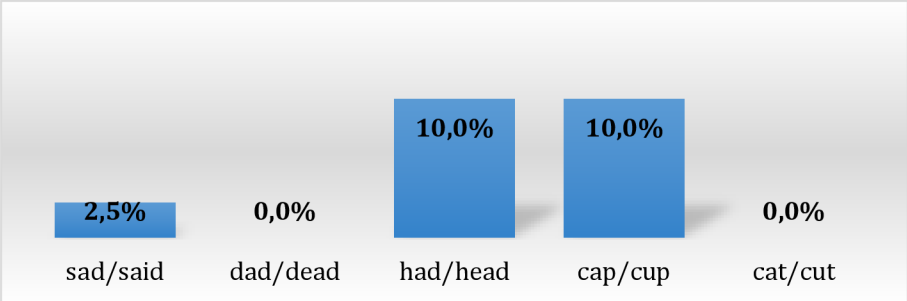


Class A /θ/, /ð/ and /t/

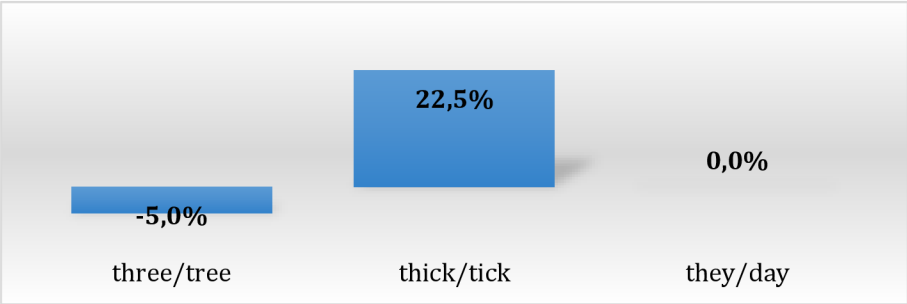


Class A sentence stress

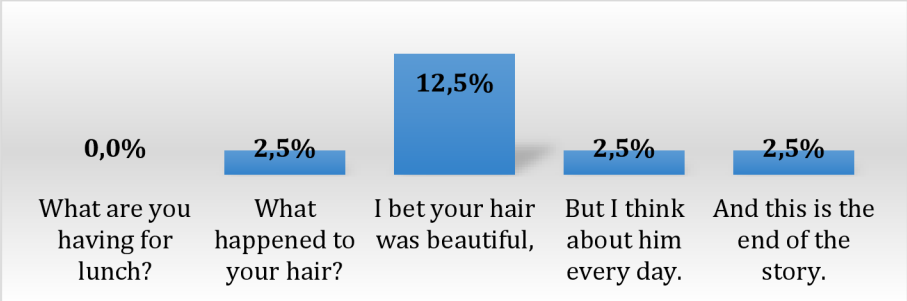
Class B voiced / voiceless consonants



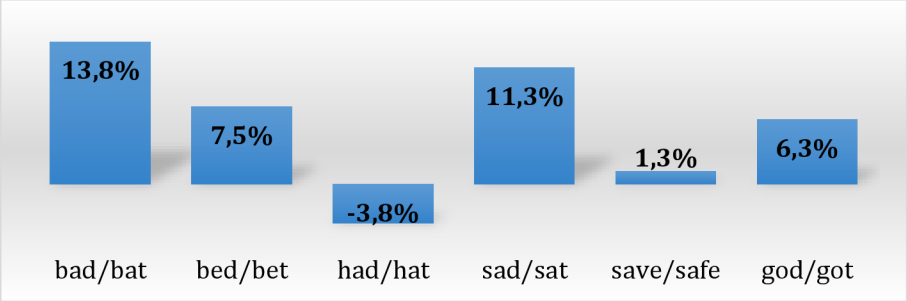
Class B ash /æ/ and /e/ or /ʌ/



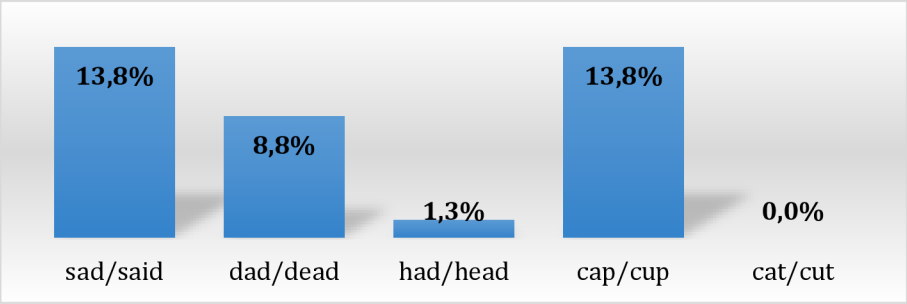
Class B /θ/, /ð/ and /t/



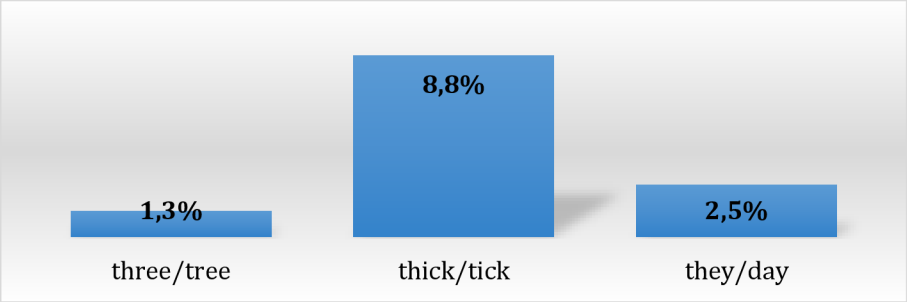
Class B sentence stress



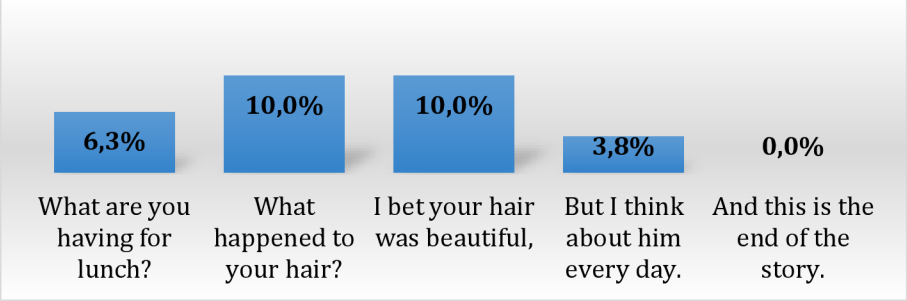
Class C voiced / voiceless consonants



Class C ash /æ/ and /e/ or /ʌ/

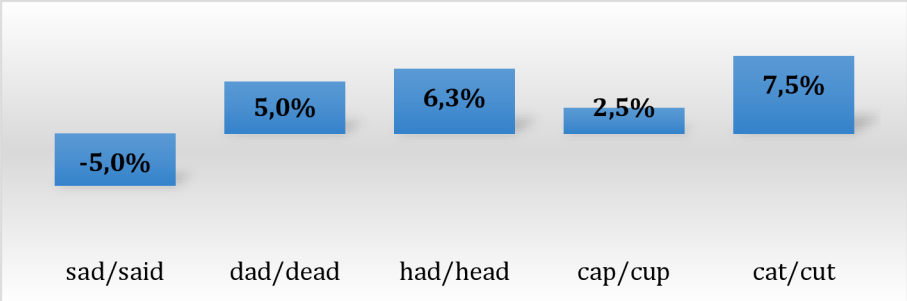


Class C /θ/, /ð/ and /t/

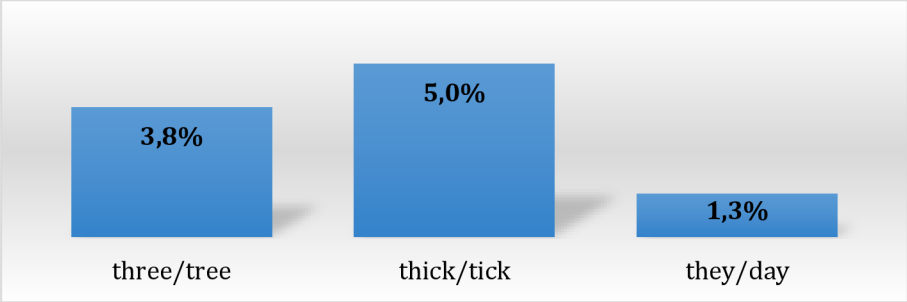


Class C sentence stress

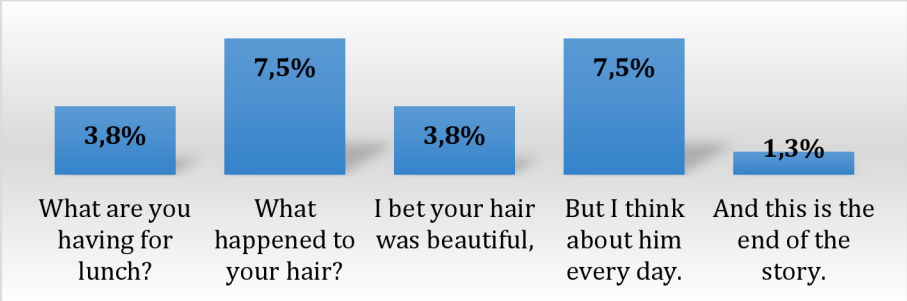
Class D voiced / voiceless consonants



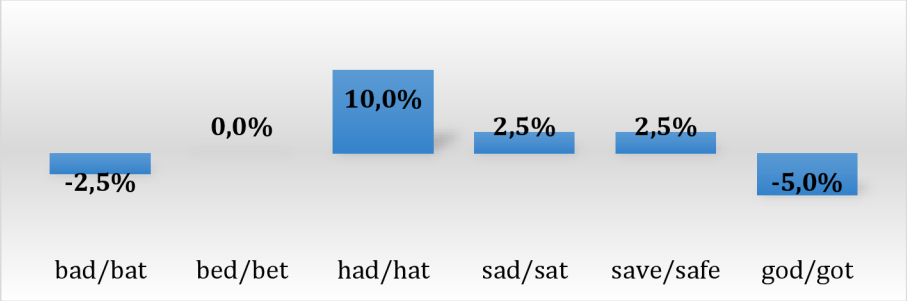
Class D ash /æ/ and /e/ or /ʌ/



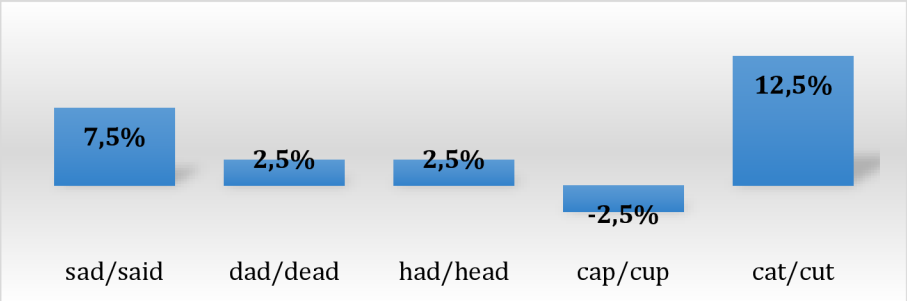
Class D /θ/, /ð/ and /t/



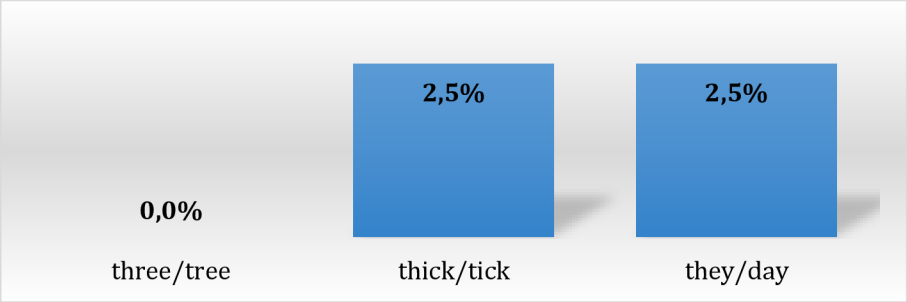
Class D Sentence stress



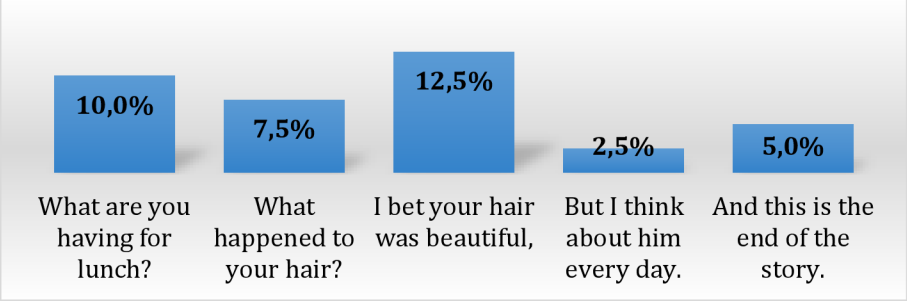
Class E voiced / voiceless consonant



Class E ash /æ/ and /e/ or /ʌ/

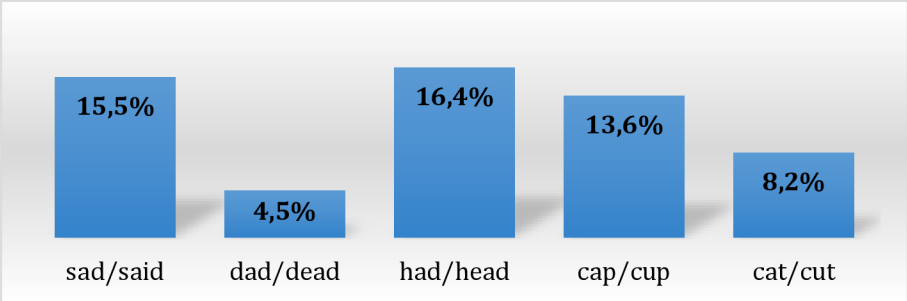


Class E /θ/, /ð/ and /t/

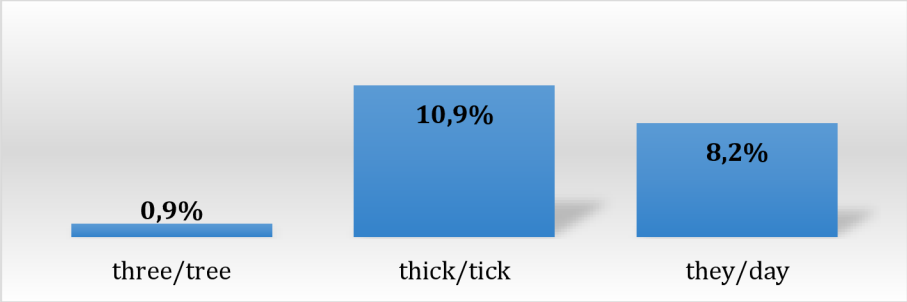


Class E sentence stress

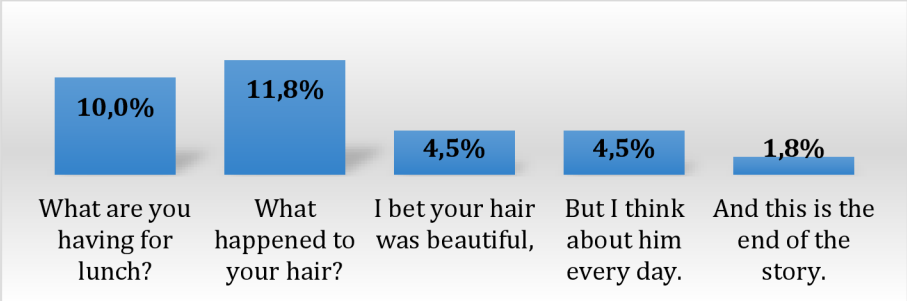
Class F voiced / voiceless consonants



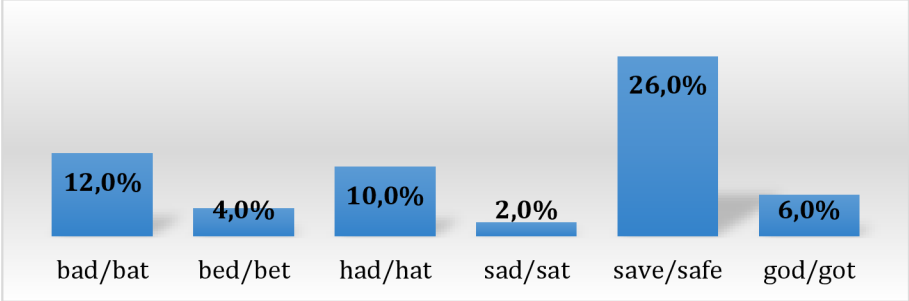
Class F ash /æ/ and /e/ or /ʌ/



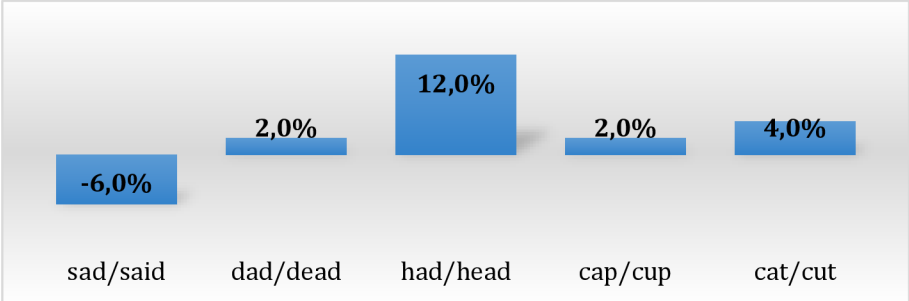
Class F /θ/, /ð/ and /t/



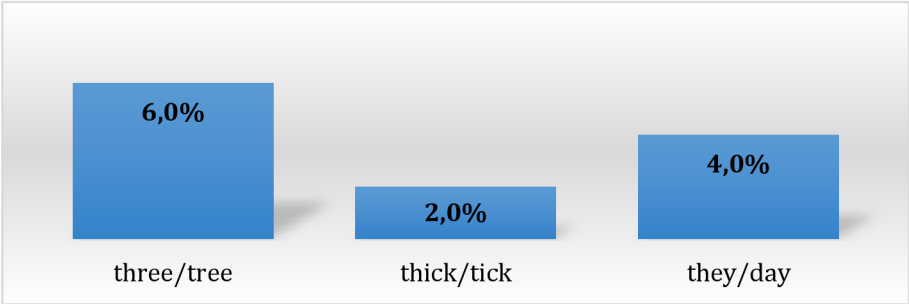
Class F sentence stress



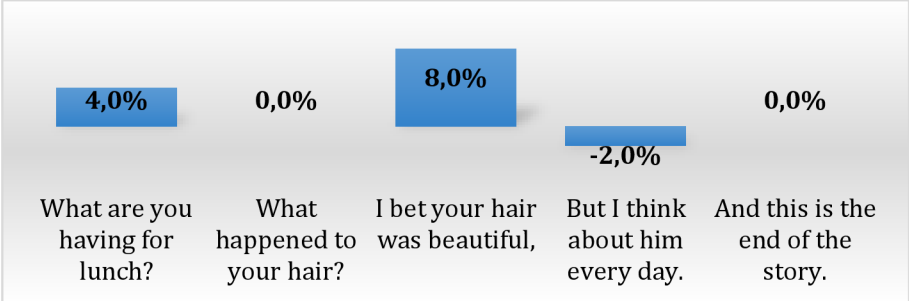
Class G voiced / voiceless consonants



Class G ash /æ/ and /e/ or /ʌ/



Class G /θ/, /ð/ and /t/



Class G sentence stress

Appendix E – Other Assessors' Results

Minimal pairs - voiced / voiceless consonants	B assessor	B researcher	averaged	C assessor	C researcher	averaged
bad /bæd/ - bat /bæt/	0,75	0,25	5,00%	0,88	1,38	11,25%
bed /bed/ - bet /bet/	0	1	5,00%	0,63	0,75	6,88%
had /hæd/ - hat /hæt/	0,75	0,5	6,25%	0,75	-0,38	1,88%
sad /sæd/ - sat /sæt/	0	1	5,00%	0,50	1,13	8,13%
save /seɪv/ - safe /seɪf/	-0,25	0,5	1,25%	0,75	0,13	4,38%
god /gɒd/ - got /gɒt/	1	0	5,00%	0,88	0,63	7,50%
Minimal pairs - ash /æ/ and /e/ or /ʌ/						
sad /sæd/ - said /sed/	-0,75	0,25	-2,50%	0,75	1,38	10,63%
dad /dæd/ - dead /ded/	0,5	0	2,50%	0,25	0,88	5,63%
had /hæd/ - head /hed/	0,25	1	6,25%	1,00	0,13	5,63%
cap /kæp/ - cup /kʌp/	0	1	5,00%	0,63	1,38	10,00%
cat /kæt/ - cut /kʌt/	0	0	0,00%	1,13	0,00	5,63%
Minimal pairs - /θ, /ð/ and /t/						
three /θriː/ - tree /triː/	1,25	-0,5	3,75%	0,88	0,13	5,00%
thick /θɪk/ - tick /tɪk/	-0,5	2,25	8,75%	0,25	0,88	5,63%
they /ðeɪ/ - day /deɪ/	1	0	5,00%	0,75	0,25	5,00%
Sentence stress						
What are you having for lunch?	1,25	0	6,25%	0,13	0,63	3,75%
What happened to your hair?	1,75	0,25	10,00%	0,25	1,00	6,25%
I bet your hair was beautiful,	1	1,25	11,25%	0,25	1,00	6,25%
But I think about him every day.	0,25	0,25	2,50%	0,38	0,38	3,75%
And this is the end of the story.	-0,25	0,25	0,00%	0,00	0,00	0,00%

Minimal pairs - voiced / voiceless consonants	F assessor	F researcher	averaged	G assessor	G researcher	averaged
bad /bæd/ - bat /bæt/	1,00	1,18	10,91%	0	1,2	6,00%
bed /bed/ - bet /bet/	0,09	0,64	3,64%	0,6	0,4	5,00%
had /hæd/ - hat /hæt/	1,00	1,45	12,27%	1,6	1	13,00%
sad /sæd/ - sat /sæt/	0,82	1,55	11,82%	1	0,2	6,00%
save /seɪv/ - safe /seɪf/	-0,09	-0,09	-0,91%	1,8	2,6	22,00%
god /gɒd/ - got /gɒt/	0,73	0,73	7,27%	1	0,6	8,00%
Minimal pairs - ash /æ/ and /e/ or /ʌ/						
sad /sæd/ - said /sed/	0,09	1,55	8,18%	1	-0,6	2,00%
dad /dæd/ - dead /ded/	0,55	0,45	5,00%	0,8	0,2	5,00%
had /hæd/ - head /hed/	1,09	1,64	13,64%	1,2	1,2	12,00%
cap /kæp/ - cup /kʌp/	0,36	1,36	8,64%	0	0,2	1,00%
cat /kæt/ - cut /kʌt/	0,18	0,82	5,00%	0,4	0,4	4,00%
Minimal pairs - /θ, /ð/ and /t/						
three /θriː/ - tree /triː/	0,09	0,09	0,91%	2	0,6	13,00%
thick /θɪk/ - tick /tɪk/	0,91	1,09	10,00%	0,4	0,2	3,00%
they /ðeɪ/ - day /deɪ/	0,27	0,82	5,45%	0,6	0,4	5,00%
Sentence stress						
What are you having for lunch?	1,18	1,00	10,91%	1	0,4	7,00%
What happened to your hair?	1,27	1,18	12,27%	0,8	0	4,00%
I bet your hair was beautiful,	0,64	0,45	5,45%	0,8	0,8	8,00%
But I think about him every day.	1,27	0,45	8,64%	0	-0,2	-1,00%
And this is the end of the story.	0,45	0,18	3,18%	0,6	0	3,00%

Appendix F – Original Instructions for Participants

Výzkum výslovnosti v angličtině

Termín: 31. leden 2021 23:59

Pokyny

Děkuji ti za účast ve výzkumu anglické výslovnosti. Výzkum bude mít několik částí a jeho výstupy budou anonymní. Výzkum bude probíhat cca 2 měsíce a za splnění každé z částí dostaneš 1.

Co tě teď, na začátku výzkumu, čeká?

1. Vyplň dotazník ve Forms (pozor, je v dalším Zadání), kde se dotazuji, jak jsi na tom s anglickou výslovností. Odpovídej pravdivě a upřímně. Ptám se na tvé pocity a subjektivní dojmy.
2. Nahraj se, jak čteš zadaný text. Text "Story of a Sad Bat" nalezneš v příloze. Na formátu nahrávky nezáleží, můžeš se nahrát na jakékoli zařízení. Jen je potřeba, aby ti bylo rozumět a aby v nahrávce nebyly žádné další zvuky. Můžeš použít Vocaroo, je to opravdu jednoduché. https://vocaroo.com/
3. Vlož nahrávku do Zadání, pošli mi ji na e-mail anna.stangelova@seznam.cz nebo mi pošli odkaz z Vocaroo.

Následovat bude sledování videí dle daného harmonogramu. Čekej na další instrukce. :)

Referenční materiály

Story of a Sad Bat.jpg

výzkum výslovnosti - 1. a 2. video

Termín: 31. březen 2021 23:59

Pokyny

Děkuji ti za účast ve výzkumu anglické výslovnosti. Výzkum se nyní posouvá do druhé fáze.

Tvým úkolem je:

1) shlédnout 3x tato dvě videa:

- Pozor na znělé souhlásky anglických slov! Aneb záda nejsou taška a čepice není taxík :) https://www.youtube.com/watch?v=zwemlj5gf3o

- Slavné otevřené /ae/ v angličtině! Aneb BAT není BET ani BUT a DAD není DEAD! https://www.youtube.com/watch?v=fdUMn4L5rvg

2) vyplnit dotazník ve Forms (pozor, je v dalším Zadání), kde ověřuji, že jsi videím porozuměl/a.

Termín shlédnutí videí a vyplnění dotazníku je středa 31. 3. včetně. Nezapomeň, že se jedná o povinný domácí úkol pro všechny.

výzkum výslovnosti - videa 3 a 4

Termín: 11. duben 2021 23:59

Pokyny

Výzkum výslovnosti nyní pokračuje, Tvým dalším úkolem je opět:

1) shlédnout alespoň 3x tato dvě videa:

- Dvě velmi známé souhlásky v angličtině, v kterých se často chybuje! Aneb jak na výslovnost "TH"! https://www.youtube.com/watch?v=ycpu6wYSktM
- Větný přízvuk v angličtině aneb jízda na horské dráze! https://www.youtube.com/watch?v=0YuFqIaOxWA

2) vyplnit dotazník ve Forms (pozor, je v dalším Zadání), kde ověřuji, že jsi videím porozuměl.

Termín shlédnutí videí a vyplnění dotazníku je neděle 11. 4. včetně. Nezapomeň, že se jedná o povinný domácí úkol pro všechny.

Výzkum výslovnosti - finále

Termín: 2. květen 2021 23:59

Pokyny

Ještě jednou ti děkuji za účast v průzkumu. Toto je poslední úkol, který tě čeká.

1. Znovu se nahraj, jak čteš zadaný text. Text "Story of a Sad Bat" nalezneš v příloze, jedná se o ten stejný, jako minule. Na formátu nahrávky nezáleží, můžeš se nahrát na jakékoli zařízení. Jen je potřeba, aby ti bylo rozumět a aby v nahrávce nebyly žádné další zvuky. Ideálně použij Vocaroo a sem do zadání mi vlož odkaz na nahrávku. https://vocaroo.com/
2. Vyplň krátký dotazník - pozor, je v dalším Zadání ve formě Kvízu. Odpovídej pravdivě, ptám se na tvé subjektivní dojmy a pocity.

Referenční materiály

Story of a Sad Bat.jpg