Raising students' awareness of audience in reading and writing

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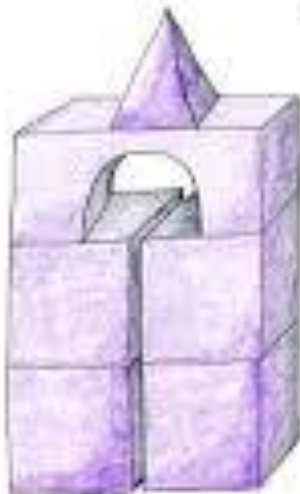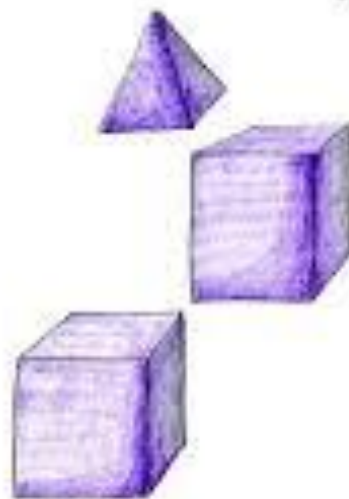
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Abstract:

In order to effectively write any type of text, a writer has to have a focus on the intended audience. This awareness affects not only the style of writing to use, but also helps to achieve the purpose of the text. This is an important concept for all students, but particularly for EAP and ESP students because in their academic and professional careers they will be writing and presenting to a wide range of audiences. This presentation will first give a short overview of the importance of understanding the notion of audience, and then I will share activities that participants can use in their courses to both help their students notice aspects of audience in the texts they read, as well as how to incorporate them into their own academic and professional writing.

Audience

'Audience' is the intended reader or listener – not necessarily everyone who will read or listen to the text (aka *target user*).

A text (written or spoken) must be tailored to the intended audience in order for the purpose to be achieved. In students' studies, this is relevant to teamwork, writing, presentations, and reading.

In their professional lives, students will work with "experts" – but from different fields (*i.e.,* laypeople in students' fields).

Example questions for students to consider when focusing on their audience:

- Is this audience in the same field or background?
- Why would the audience want to read or listen to this?
- What does the audience already know?
- What would the audience like to know?
- Which terms should be defined or explained for this audience?
- What register should be used for this audience?

The Curse of Knowledge

The "curse of knowledge" is a cognitive bias that leads better-informed parties to find it extremely difficult to think about problems from the perspective of lesser-informed parties.

"Once we know something we find it hard to imagine not knowing it. Our knowledge has 'cursed' us. We have difficulty sharing it with others, because we can't readily re-create their state of mind."[1]

Steven Pinker, a Harvard psychology professor who conducts research on language, cognition, and social relations, writes:

- *The curse of knowledge is the single best explanation I know of why good people write bad prose. It simply doesn't occur to the writer that her readers don't know what she knows — that they haven't mastered the patois of her guild, can't divine the missing steps that seem too obvious to mention, have no way to visualize a scene that to her is as clear as day. And so she doesn't bother to explain the jargon, or spell out the logic, or supply the necessary detail.*[2]

2

The difficulty of relating to other audiences becomes more difficult as one progresses in one's specific field.

Examples of when this is important for students:

- Persuasive speaking (*who* are you trying to persuade?)
- Process descriptions (*who* should understand this?)
- Abstracts (*what* real-life problem is this solving?)

Problems in history that were caused by the curse of knowledge:

- The Charge of the Light Brigade (1854)
- Tenerife Airport Disaster (1977)
- Hyatt Regency Walkway Collapse (1981)
- The Space Shuttle *Challenger* (1986)
- Mars Climate Orbiter Disaster (1998)
- The Space Shuttle *Columbia* (2003)

An interesting 38-minute podcast, "*The Curse of Knowledge Meets the Valley of Death,*" on the website <u>Cautionary Tales</u> explains how the curse of knowledge contributed to the failure of the Charge of the Light Brigade: https://timharford.com/2021/04/cautionary-tales-the-charge-of-the-light-brigade/. This could be useful for students' listening skills.

Another podcast in the same series, "Death on the Dance Floor" (42 minutes) explains the reasons behind the Hyatt Regency Walkway Collapse, also due to the curse of knowledge: https://timharford.com/2022/03/cautionary-tales-death-on-the-dance-floor/

Miscommunication problems are also evident in the development of innovations:

From a description of a new web-based service intended to help inventors and companies connect:

"(The service) will have an unusual twist: before inventions are listed, the registry will provide in-person or online workshops to **help inventors recast their often technical prose in jargon-free descriptions for the business and industrial customers that are expected to shop at the site**.

"A business may have a brilliant idea, [Sandy Johnson] said, but if they need a small piece of technology to make it work, it's virtually impossible to find right now, **because of incomprehensible descriptions**."[3]

From the article, "5 Reasons Why Engineering Designs Fail" [4]

- Reason #1 is Failure to understand the specifications
  "Engineers need to remind themselves that their work isn't for themselves. Their work is for some client, be they an internal marketing department, as is the case in the auto industry, or someone external to the organization". [italics mine]

From the article, Communicating the Science of Climate Change[5]. This explains that many people misunderstand the seriousness of climate change because the vocabulary used by climate scientists has a different meaning from that of laypeople. Examples:

Terms that have different meanings for scientists and the public		
Scientific term	**Public meaning**	**Better choice**
enhance	improve	intensify, increase
aerosol	spray can	tiny atmospheric particle
positive trend	good trend	upward trend
positive feedback	good response, praise	vicious cycle, self-reinforcing cycle
theory	hunch, speculation	scientific understanding
uncertainty	ignorance	range
error	mistake, wrong, incorrect	difference from exact true number
bias	distortion, political motive	offset from an observation
sign	indication, astrological sign	plus or minus sign
values	ethics, monetary value	numbers, quantity
manipulation	illicit tampering	scientific data processing
scheme	devious plot	systematic plan
anomaly	abnormal occurrence	change from long-term average

In the article, *The Right Words are Crucial to Solving Climate Change*: "Jargon can be hard to understand, but even worse are familiar terms that in a scientific context have entirely different meanings."[6]

BETTER WORDS TO EXPLAIN CLIMATE SCIENCE

SCIENTIFIC TERM	PUBLIC MEANING	BETTER CHOICE
Beach nourishment	Making beaches healthier	Dredging and moving sand repeatedly
Climate change	Any change in climate	Climate disruption
Greenhouse gas emissions	Hothouse exhaust	Heat-trapping pollution
Natural gas	Clean fuel	Methane gas
Negative emissions	Bad pollution	CO_2 removal or drawdown
Nuisance flooding	Inconvenient water	Recurrent sunny-day flooding
Positive feedback	Good response	Self-reinforcing cycle
Sensitivity	Awareness of feelings	Warming from doubled CO_2 concentration
Sequester	Keep jury from news	Lock up carbon over the long term
Retreat	Surrender, give up	Proactive relocation
Extratropical	Especially tropical	Outside of the tropics
Natural disasters	Acts of God, caused by nature	Human-made disasters

ACTIVITIES FOR COURSES:

1. Present examples of different meanings a word has across subject areas

Show examples from chart *Terms that Have Different Meanings*, above.

Examples of terms that have different meanings:

- **register** = linguistics, music, photography, computer programming
- **sentence** = linguistics, law
- **hedging** = linguistics, finance, horticulture
- **stock** = finance, logistics, cooking
- **wild cat** = zoology, marketing
- **capital** = finance, geography
- **redemption** = theology, finance
- **jacket** = fashion, mechanical engineering, printing, cooking, military

It would also be useful to collect examples from learners' own field, and keep adding to this so they could see how others use the term.

2. Have learners explore the various meanings of abbreviations

A good resource is the website www.abbreviations.com. Choose an abbreviation from the students' field and have them guess what else it could stand for. Then check the abbreviation website – there's a good chance that there it has other meanings.

Examples in the field of English teaching: There are 234 definitions of ESP, 77 of EAP, 40 of EFL and 49 of ESL.

Other examples from my students' fields: BA, BS, MA, INC, CAD, CAM, CAT, PET, etc.

3. Use model texts to show learners the different ways that vocabulary items are explained to different audiences

Examples of the word "externalities" from articles in The New York Times:

- "These decisions are personal but have global impact. ***Economists call the effects of our personal decisions on others 'externalities.'***"
- "Whatever the product, some costs are borne by producers, but others, ***called external costs — 'externalities,' —*** are not; nor are they represented in the price."
- "One argument for specific taxes is that consuming certain products has an adverse impact on bystanders. ***Economists call these effects negative externalities***."
- "In manufacturing, the market can malfunction if there are ***positive externalities across companies. That means that*** some benefits of a manufacturing plant go to companies other than the one deciding whether to build it."
- "When there are "negative externalities" ***— costs that economic actors impose on others without paying a price for their actions —*** any presumption that the market economy, left to its own devices, will do the right thing goes out the window."

Examples from texts used for my Robotics Engineering groups:

- *… perform emergency tasks, **like** in the Fukushima disaster, …*
- *We can make our robotic leg **behave like a spring or damper** without …*
- *The percentage of time a leg spends on the ground rather than in the air is **referred to in biomechanics as** a "duty cycle"; the faster an animal runs, the shorter its duty cycle.*
- *This force-control approach to robotic running **is similar, in principle, to** the way world-class sprinters race.*
- *… **similar to the way that** rabbits hop*
- ***Let's put that in perspective**; according to a September report …*
- *… are testing **what's called an** auditory brainstem implant, or ABI.*
- ***Here's how it works**: The person wears …*
- *… uses a **"muscle"** to …*
- *What's more, the P300 is vulnerable to **what scientists call** "confounding factors." **For instance**, if the …*

4. Find examples of information that is written or presented for different audiences

A chemistry student explaining her field of research[7]:

To peers at an American Chemical Society meeting

- "Using laser-induced temperature jump techniques I focus on elucidating the kinetics and mechanism of dihydrofolate reductase as a model system to better understand how enzymes work."

To biologists and mathematicians at an AAAS meeting

- "By enhancing our understanding of enzymes we hope to advance many fields — enzyme design, drug discovery and chemical synthesis."

To neighbors

- "With this model we will be able to design, optimize and control enzymes to help us perform reactions more cleanly, develop new materials, and enhance our abilities to produce everyday products."

To third-graders

- "Inside the bodies of every living thing, including you and me, are tiny little machines called enzymes that do a variety of things. They help break down our food, fight diseases, and help our bodies grow. We aren't completely sure how enzymes work, but I am trying to understand them so that one day we can make enzymes to do whatever we want them to do."

Videos known as "5 Levels" on youtube.com (each approximately 5 minutes)

Expert explains (concept) in 5 levels of difficulty to:

- child
- teenager
- college student
- grad student
- expert

Some examples of concepts (approximately 17 concepts available):

- blockchain technology
- harmony
- black holes
- gravity
- machine learning

Examples from Plain English websites:

Before: Means of Egress: Ways of exit access and the doors to exit to which they lead shall be so designed and arranged as to be clearly recognizable as such. Hangings or draperies shall not be placed over exit doors or otherwise so located as to obscure any exit. Mirrors shall not be placed on exit doors. Mirrors shall not be placed in or adjacent to any exit in such a manner as to confuse the direction of the exit.

After: Exit routes: An exit door must be free of signs or decorations that make it hard to see.[8]

Before: Circumstantial evidence is evidence that, if found to be true, proves a fact from which an inference of the existence of another fact may be drawn. A factual inference is a deduction that may logically and reasonably be drawn from one or more facts established by the evidence.

After: Some evidence proves a fact directly, such as testimony of a witness who saw a jet plane flying across the sky. Some evidence proves a fact indirectly, such as testimony of a witness who saw only the white trail that jet planes often leave. This indirect evidence is sometimes referred to as "circumstantial evidence." In either instance, the witness's testimony is evidence that a jet plane flew across the sky.[9]

5. Compare news and source material on the same topic for different audiences

From the abstract in *PeerJ*:

Psychological research on face recognition has revealed an important distinction between familiar and unfamiliar face perception: When a face is familiar to the observer, it can be identified across a wide range of images. However, when the face is unfamiliar, generalisation across images is poor.[10]

From the news article relating the information:

Essentially, psychological research has proven that while people can recognize many different photographs of the same person, unfamiliar faces are associated with a specific image. So if you see the same stranger in multiple different action shots, it almost seems like they're different people.[11]

From different texts about research on infant response to tickling. Students can focus on the differences in headlines, vocabulary, information and audience focus.

From the original research article in the journal "Current Biology," Vol. 25, Issue 20, 19 October 2015, pp. R978-R979: *Human infants' ability to perceive touch in external space develops postnatally.*

- "We investigated this developmental process by tracing <u>the origins of the influence of external spatial representation on young infants' orienting responses to tactile stimuli</u>."

From the article on The Conversation website[12]: *Do babies feel tickles in a different way to adults?*

- "Our research at the Goldsmiths InfantLab has been investigating the early development of tactile perception for some time, looking particularly at <u>the early development of how babies perceive where a touch is coming from in space.</u>"

From the article on Science Daily website[13]: *Young babies don't experience tickles in the way you think they do*

- "That's because, according to new evidence reported in the Cell Press journal Current Biology on October 19<u>, infants in the first four months of life apparently feel that touch and wiggle their feet without connecting the sensation to you</u>."

From the article on BT website[14]: *Want to tickle your baby silly? Do it before they're four months so they won't know it's you*

- "Scientists have discovered that <u>newborns feel being tickled without making any connection between the sensation and where the tickle is coming from</u>."

6. **Study presentations of 'technical' topics that are delivered to a non-technical audience**

Choose examples of presentations both in and outside of students' fields. Focus on noticing what the presenter does, says, writes (on slides) to explain the ideas clearly.

Examples of websites that offer short videos:

- TED (Technology, Entertainment, Design): http://www.ted.com/
- How Stuff Works: http://www.howstuffworks.com/videos
- Watch, Know, Learn: http://www.watchknowlearn.org/

7. Practice writing short texts for different audiences

After students have seen and analyzed different ways of focusing on audience in texts, have them try it themselves. They can do this task at home or in lesson with a partner or in a small group. Such texts could be a description of project work or thesis, instructions, directions, etc. The choice of length and audiences would be relevant to the text chosen; for example, a colleague in the same field, the teacher, a friend or family member, a child, an audience of a presentation, etc.

8. Practice an "elevator speech" for different audiences

An "elevator speech" (or an "elevator pitch") is a description or explanation that is short enough to be completed during an elevator ride. This is the spoken version of #7. The topics could be the same as those in #7 and could also be the kind of description of oneself given at a job interview. Restrictions of length can vary. Examples of elevator speeches can be found on www.youtube.com.

9. Get feedback from someone outside the field

After students have written a text or have prepared a presentation, they should try to get feedback from someone outside their field (e.g., a friend, family member, a student from a different department). They should listen carefully to any comments or areas of confusion, and take notes (which could be useful for their future work).

10. Continually identify the relevant features of texts that are well focused on their audience

Throughout the course, students can take notes on how texts focus on audience. Some examples of how vocabulary can be explained from texts I have used:

- Relating the term to something known to audience
  - *…, which look like a futuristic set of ski poles*
- Explanation
  - *In other words, …; , which means …*
- Example
  - *For example, such as,*
- Giving real-life example
  - Doomsday Clock metaphor (a symbol that represents the likelihood of a man-made global catastrophe)
- Use of punctuation (parentheses, dashes, quote marks)

Students could also brainstorm a list of guidelines to follow to keep a focus on their audience when writing or presenting. Ideas generated by my students in various groups:

- Do not use jargon when communicating with those outside your field, and when you must use your professional jargon, explain or define it.

- Keep your explanations short and simple when you are communicating with a layperson audience.
- In your explanations, use examples and comparisons from the audience's field of knowledge or from general knowledge.
- Focus directly on your audience by using the active voice instead of the passive where possible.
- Structure the information you are giving so that the part most relevant to your audience comes first. Leave out any information your audience does not need to know so as not to confuse them.
- Be aware that what your colleagues from other professions say might also be using their specific jargon, so confirm what you think you have understood.

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