

## **ICT Essay**

The aim of this essay is to analyse the potential of AI instruments to design teaching materials. For this task, “MagicSchool AI” and “ChatGPT & Midjourney|AI bot” were chosen since they offer an opportunity to design various types of tasks aimed to develop students’ reading, writing, listening and speaking skills.

First of all, it is essential to describe the most useful functions of these AI instruments. The first tool, which was used to create teaching materials, is “MagicSchool AI” - an educational platform designed to assist educators in creating materials related to language teaching. It provides over 70 tools that help teachers generate vocabulary lists, text-based questions, vocabulary-based texts, streamline lesson planning and check students’ papers. At the same time, “ChatGPT & Midjourney|AI bot” is an AI chatbot that offers an opportunity to create lesson plans and visual materials, generate texts and design materials related to specific educational subjects. Overall, these resources help teachers to save time and, thus, allocate it to such crucial aspects of teaching as investing in their own professional development, providing personalised feedback, and addressing individual students’ needs.

In order to examine the capabilities of the abovementioned AI tools, both of them were given the same task: to create five multiple choice questions based on the text "How humans evolved language" (see Appendix A) for students with B2-C1 level in order to develop their reading skills. It took three attempts to formulate a prompt for both AI and generate exactly what was expected from them. Initially, my attempts lacked clarity and specificity. For instance, the number of the correct answers for each task, as well as the age of students and their level were not mentioned. Moreover, it should have been stated in the prompt that answers for the task are also required since AI did not provide them

without clarification. By the third attempt, a successful prompt was generated, leading to high-quality outputs that met the expectations: “Create 5 multiple choice questions for B2-C1 students aged 18-22 to check their understanding of the text which is provided below. Make sure that each question that you are going to generate corresponds to the text’s level and content and has only one correct answer. Provide the instruction for students so that they could understand the task and, then, give answers to the questions generated. Use this text:...”.

Speaking about the quality of the generated materials, MagicSchool AI managed to produce an appropriate task (see Appendix B). Firstly, this tool helped to generate five multiple choice questions which are suitable for the target age group with B2-C1 level. Mostly, they require critical thinking and application of prior knowledge, as well as include advanced vocabulary (*“few physical clues”*, *“produce vowel and consonant sound”*). However, some of the answers should be reformulated to be more concise. Secondly, these questions are aligned with all parts of the text, allowing to assess students' understanding of the material provided. They also contain only one correct answer, however, all incorrect options are plausible and realistic, making them reasonable choices for students who struggle to find the correct answer (*the evidence of early human civilization vs our forebears’ artifacts*). Thirdly, it also managed to formulate clear and concise instructions for the task that help students to understand its requirements. Finally, it tried to avoid using negative phrasing (e.g., “Which of the following is NOT...”) as it can confuse students.

In contrast, ChatGPT as an AI tool for designing educational materials has more drawbacks than benefits (see Appendix C). To begin with, it did not provide answers to the questions, despite the fact that it was directly asked. Searching for answers can be time-consuming for teachers since they will need to verify the correct answers in the text. Another notable issue is that some questions were found to be overly simple, allowing students to quickly find answers in the text without requiring critical thinking. For instance, the question “What field of study

helps us understand the development of languages?" directly references a specific term that is likely to be defined based on students' prior knowledge. This simplicity undermines the effectiveness of the assessment, as it does not challenge students to engage with the material meaningfully. While most questions are clear, some options could be more precise. For example, in the first question, the phrase "the importance of language in human society" could be interpreted in various ways. Despite these drawbacks, it is important to highlight that all questions were based on the provided text and addressed various aspects of it. Furthermore, the question about the primary focus of the text can help students to practice such an important skill as reading for general information (skimming). Finally, by maintaining a consistent questions' structure ("*development of the brain*", "*development of hands*"), students can concentrate on demonstrating their knowledge and comprehension, rather than being distracted by variations.

While both MagicSchool AI and ChatGPT & Midjourney|AI bot have their strengths and weaknesses in designing educational materials, MagicSchool AI stands out for its ability to produce relevant questions that effectively assess student understanding at a higher cognitive level. In contrast, ChatGPT's limitations highlight areas that should be improved so that teachers could use it as an educational tool. Regarding the improvements needed for both sources, they should also include explanations for the correct answers. By asking these tools to offer rationale, it would be easier to clarify any misconceptions that may arise.

To conclude, the potential of AI tools in language teaching is vast and may be even considered formidable. These instruments have numerous benefits that can enhance the educational experience for both teachers and students. Nowadays, AI tools can analyse student performance, give feedback, create texts and design a variety of educational materials effortlessly. Therefore, by integrating these resources into their teaching practice thoughtfully, teachers can not only save time but also incorporate creative and engaging activities and

empower their students to become more autonomous learners. However, it should be taken into consideration that the role of teachers remains crucial in fostering a supportive learning environment, providing personalized guidance and facilitating discussions. Moreover, as it was proven earlier, teachers should remember that the materials generated by AI still remain imperfect and require additional evaluation. They may not always align with the students' level of proficiency, age, curriculum standards or the specific needs of students.

## **Appendix A. Text for the prompt**

### **How humans evolved language**

Thanks to the field of linguistics, we know much about the development of the 5,000 plus languages in existence today. We can describe their grammar and pronunciation and see how their spoken and written forms have changed over time. For example, we understand the origins of the Indo-European group of languages, which includes Norwegian, Hindi and English, and can trace them back to tribes in eastern Europe in about 3000 BC.

So, we have mapped out a great deal of the history of language, but there are still areas we know little about. Experts are beginning to look to the field of evolutionary biology to find out how the human species developed to be able to use language. So far, there are far more questions and half-theories than answers.

We know that human language is far more complex than that of even our nearest and most intelligent relatives like chimpanzees. We can express complex thoughts, convey subtle emotions and communicate about abstract concepts such as the past and future. And we do this following a set of structural rules, known as grammar. Do only humans use an innate system of rules to govern the order of words? Perhaps not, as some research may suggest dolphins share this capability because they are able to recognise when these rules are broken.

If we want to know where our capability for complex language came from, we need to look at how our brains are different from other animals. This relates to more than just brain size; it is important what other things our brains can do and when and why they evolved that way. And for this there are very few physical clues; artefacts left by our ancestors don't tell us what speech they were capable of making. One thing we can see in the remains of early humans, however, is the development of the mouth, throat and tongue. By about 100,000 years ago, humans had evolved the ability to create complex sounds. Before that, evolutionary biologists can only guess whether or not early humans communicated using more basic sounds.

Another question is, what is it about human brains that allowed language to evolve in a way that it did not in other primates? At some point, our brains became able to make our mouths produce vowel and consonant sounds, and we developed the capacity to invent words to name things around us. These were the basic ingredients for complex language. The next change would have been to put those words into sentences, similar to the 'protolanguage' children use when they first learn to speak. No one knows if the next step – adding grammar to signal

past, present and future, for example, or plurals and relative clauses – required a further development in the human brain or was simply a response to our increasingly civilised way of living together.

Between 100,000 and 50,000 years ago, though, we start to see the evidence of early human civilisation, through cave paintings for example; no one knows the connection between this and language. Brains didn't suddenly get bigger, yet humans did become more complex and more intelligent. Was it using language that caused their brains to develop? Or did their more complex brains start producing language?

More questions lie in looking at the influence of genetics on brain and language development. Are there genes that mutated and gave us language ability? Researchers have found a gene mutation that occurred between 200,000 and 100,000 years ago, which seems to have a connection with speaking and how our brains control our mouths and face. Monkeys have a similar gene, but it did not undergo this mutation. It's too early to say how much influence genes have on language, but one day the answers might be found in our DNA.

## Appendix B. MagicSchool AI

### Instructions for students:

Read the text carefully and then answer the following multiple-choice questions. Choose the option that best answers each question.

### Questions:

- 1. What is one of the few physical clues found in the remains of early humans related to language development?**
  - A) The evidence of early human civilization
  - B) Our forebears' artifacts
  - C) The size of their brains
  - D) The development of the mouth, throat, and tongue
- 2. According to the author, when do people begin to observe the signs of ancient human societies?**
  - A) About 100,000 years ago
  - B) Between 200,000 and 100,000 years ago
  - C) Between 100,000 and 50,000 years ago
  - D) In about 3000 BC
- 3. What is the next stage after developing the ability to produce vowel and consonant sounds?**
  - A) Forming complex sentences
  - B) Creating cave paintings
  - C) Learning grammar and sentence structure
  - D) Developing the ability to invent new words
- 4. What is one of the unanswered questions about early human language?**
  - A) How much influence genes have on language development
  - B) The size of early human brains
  - C) The evidence of early human civilization
  - D) The connection between cave paintings and language
- 5. What does the text suggest about the relationship between genetics and language ability?**
  - A) Language ability is purely learned from the environment
  - B) There may be specific gene mutations linked to language development
  - C) Genetics have no influence on language skills
  - D) Primates share the same genetic basis for language

### Answers:

1. B

- 2. C
- 3. D
- 4. A
- 5. B



## Appendix C. ChatGPT & Midjourney|AI bot

### Instructions for Students:

Answer the multiple choice questions. Choose the correct option that best answers each question.

### Questions:

**1. What is the primary focus of the text?**

- A) The importance of language in human society
- B) The development of human language and its origins
- C) The differences between human and animal communication
- D) The evolution of writing systems

**2. What field of study helps us understand the development of languages?**

- A) Biology
- B) Linguistics
- C) History
- D) Mathematics

**3. What aspect of human language distinguishes it from that of chimpanzees, according to the author?**

- A) Its simplicity
- B) Its ability to convey complex thoughts and emotions
- C) Its reliance on gestures
- D) Its limited vocabulary

**4. What physical changes in early humans are noted as evidence of their ability to create complex sounds?**

- A) Development of the brain
- B) Development of the mouth, throat, and tongue
- C) Increase in height
- D) Development of hands

**5. What gene mutation is mentioned in relation to language ability?**

- A) A mutation that occurred between 300,000 and 200,000 years ago
- B) A mutation that occurred between 200,000 and 100,000 years ago
- C) A mutation that occurred after 50,000 years ago
- D) No mutations are mentioned