Using Artificial Intelligence to Assist Student Presentations

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Abstract

Lower-level students (CEFR A1/A2) often face fundamental materials that do little to challenge their critical thinking skills. Instructors can request students to produce personal content, but research is often challenging as the only materials are aimed at higher level or native speakers. Students can benefit significantly from presenting in small groups and are more relaxed in such a context. Using a learner-generated-context-based approach (LGC), the instructor can create specific study objectives and then apply an AI-based system to assist learners in studying autonomously (or semi-autonomously). Various AI applications can greatly assist learners with their writing and, by setting vocabulary parameters, allow them to give comprehensible presentations to their peers. This paper will describe how the instructor assisted students in creating prompts and doing research with AI to gather level-appropriate and interesting material, which they then presented to classmates. In addition, the results of an end-of-semester survey and student feedback will be discussed, with future directions for improvement considered.

Keywords: *materials; Artificial Intelligence; presentations; student;*

1. Introduction

For decades, if not centuries, teachers have relied on published materials for language instruction; these materials are created with a certain learner level in mind to provide a foundation for learners to build upon. The levels themselves can be problematic, as they are typically informed by test scores, which may or may not accurately reflect a learner's given ability. In the past, most standardized testing focused on reading and listening skills, avoiding the procedurally costly aspects of writing and speaking. As a result of these generalized materials, learners can fall between the cracks. They may either be bored by their simplicity or frustrated when faced with difficulty levels beyond what they can adequately comprehend.

Another area in which professionally made materials can be lacking is topical accuracy. Information and news move at astounding speeds thanks to the internet, and regardless of their best efforts, publishers still have long publishing timelines, meaning the materials in a given text may be two or three years old before they reach the hands of the learners. Of course, the advent of eBooks and eTexts mean that updates can be included constantly, but this is labor intensive and only partially resolves the issue of out-of-date materials.

There are multiple benefits to doing presentations in the classroom. First and foremost, there is the act of formal speaking practice, which is different from conversation. Students all have experience reading in front of a classroom, but giving a presentation that includes images on a screen is an experience many may need more familiarity with.

Learners are required to complete multiple tasks when giving a presentation. First, they must choose a topic that satisfies the assignment and appeals to them. Allowing students to make the decision themselves is of great value; a motivating topic can lead to more energy and effort. It will carry through to the audience if there has been enough preparation. This emphasis on student choice and effort empowers them in the learning process and keeps them engaged.

While Artificial Intelligence concerning education has been discussed for some time, there was a stress on vocabulary and writing feedback. However, chatbots have become a focus in just the past few years as they make communication more interesting（Kartal & Yeşilyurt, 2024）. Shalevska（2023）refers to extending practice time and giving students more personalized experiences. A further advantage of chatbots is that they allow the learner to modify the conversation and specify elements of the research they are pursuing. Motivation plays an integral part in learning, and there is an ongoing discussion about whether AI will improve it or have no effect. Students who are already highly motivated are likely to apply any technology to make improvements. At the same time, less-motivated people may consider a new process bothersome and make little effort（Edmett, Ichaporia, Crompton, & Crichton, 2023）. AI can provide a high level of immediate feedback, personalization, and the excitement of gamified learning.

On the other hand, both instructors and students are concerned that too much reliance on AI may lead to less critical thinking and perhaps less overall effort（Moybeka, A.M.S et al., 2023）. In a small study on teachers' perceptions of AI use, Sumakul, Hamied, and Sukyadi（2022）agreed that AI can help their instruction if there is adequate technical competence.

They also found that students were optimistic that AI could speed up feedback and lessen teachers' burden.

Learner-generated contexts (LGC) is one framework that strives to explain how combining technology with learning can lead to positive results. Luckin et al. (2010) recognize that LGC can affect both the learner and the instructor and, in the process, disrupt the traditional education system. Though originally aimed at Web 2.0, it now has relevance as AI and Web 3.0 become a reality.

2. Method

2.1. Context and participants

The project aimed to get university students to research, create scripts, and present the information to their classmates. The presentation topics varied and depended on the class makeup and overall themes.

The students were a mix of majors and abilities and could be divided into three primary levels. The business majors tended to be in a CEFR range of A1-A2, the foreign language majors close to CEFR B1, and the English language majors CEFR B2. Within each group, there were exceptions, with some students having lived overseas for extended periods and others with a multilingual family background.

The assignments were as follows:

- Lower (2-3 minutes)
    - Presentation about an American state (200 words)
    - Poster presentation on a company and its pursuit of SDG and ESG (200)
    - Presentation on a company (200)
- Middle (3 minutes)
    - Presentation on a fashion brand (300-400)
    - Presentation on an alternative transportation system (200-300)
- Advanced (3-4 minutes)
    - Presentation on an artist (300-400)
    - Presentation on an alternative medical treatment (400-500)

The students were given general guidance regarding elements of the presentation, but an

effort was made to require them to do their research.

2.1.1. Timeline for presentation project

In order to ensure enough preparation time, it is worth considering a multi-week schedule to keep students on task and progressing. Although a presentation cycle can be completed in less time, I found it works best with an outline such as this:

Week 1: Create a list of ten potential topics
Week 2: The instructor chooses a topic that does not duplicate any other students
Week 3: Students search for background material
Week 4: Draft PowerPoint with images, graphs, etc.
Week 5: Draft of the presentation script
Week 6: Presentations and peer feedback
Week 7: Reflection paper

Doing work in class (topic lists) or combining tasks (PowerPoint and script) can accelerate the process and condense the schedule to three or four weeks.

Practice is essential to ensure a quality result. One suggestion instructors can make is to have students record themselves on their phones, review the video themselves, and look for weaknesses. If students are reluctant, requiring them to upload the video to an instructor's cloud service may be the incentive they need. Using a speech-to-text service may also be a useful step, and AI might be able to play a role in this.

On presentation day, it is advisable to have all the PowerPoints already on the instructor's computer to facilitate the transition between students. This can be accomplished by having them upload or email the files to the instructor a day in advance.

Regarding feedback, I usually have a four-point check sheet in which the students consider critical aspects of the presentations, such as eye contact and body language, speaking quality (fluency and pronunciation), presentation content, and PowerPoint layout. I also have a space for them to write a few words on what impressed them the most. This exercise ensures that students will be alert and pay attention to the presenter.

Another helpful tool is a smartphone and stand. I will use the students' phones to record them doing their presentations, then ask them to write a 50-100-word critique of their per-

formance at home. Interestingly, they are sometimes more critical than I am. A way students can further benefit from this process is to have multiple presentation cycles in a given semester and then have students reflect on their progress by comparing their first videos with their last.

2.1.2 Applying AI to the research

Artificial Intelligence can be used in the preliminary stage of topic selection. Googling "famous artists" might create a workable list but interacting with a chatbot and focusing on a particular style, time frame, or genre may be more rewarding.

Once a topic has been chosen, AI can help with research. Some chatbots will produce background information and links to pursue in order to verify information. Learners can narrow down the information by asking specific questions, ideally about aspects of the topic they are curious. Encouraging students to ask the chatbot "why" is an excellent way to elicit more information than is usually presented in a singular website.

After enough information has been gathered and verified as appropriate by the instructor, learners can assemble it into a workable script for the presentation. AI can help with this, although results can sound off or be a bit corny.

One of the most significant issues lower-level students have is creating an informative presentation that does not use advanced vocabulary. Classmates will feel confused, bored, or intimidated if there are too many unknown terms, so having AI help rewrite and simplify the text is a worthwhile task. That said, it is challenging, as finding the correct vocabulary level depends on the individual class members and can vary greatly. A good rule of thumb is for learners to ask themselves if they understand all the words on the page. Specifically, asking AI to rewrite the text at a CEFR A2 or B1 can be very effective, though it is necessary for the instructor to explain such terms. A generic "please make this easier to understand" may result in something useful, but experience has shown it may be too simplistic as well. At that point, a prompt of "please add more detail" might be appropriate.

The next stage is to work on pronunciation. Here, AI can lend a hand, as many have a text-to-speech function that allows students to hear the natural rhythm of the presentation. Such practice takes time but can pay off in a smooth and professional presentation.

Technology can also provide feedback if a learner reads the presentation into a microphone with a text-to-speech application. Problem areas can be worked on and ironed out then.

While there are a myriad of potential research and presentation topics that can be assigned, these are examples of topics that the author has used with Japanese university students:

Tasks

Research a state in the United States of America
Research a living artist
Research a deceased artist (from a given century)
Research an innovative and/or modern transportation system
Research one of the many projects included in China's Belt and Road Initiative
Research a fashion designer
Research a famous person with mental health issues

It is essential for the instructor to provide helpful modeling in order to prepare the students for the tasks. This list can help guide the class in their preparation:

Presentation Guidelines for Learners

Level appropriateness
Focus on an appropriate balance of font and image size
Include images
Consider animation
Consider graphs, charts, and maps (in the target language)
Set firm time presentation parameters (penalize too long or too short)
Require recorded practice

Post-presentation

Peer feedback (something you like, something that could be improved)
Instructor feedback
Self-feedback (video review and summarize positives and negatives)

Considerations

Solo, pairs, or teams
Time constraints, unbalanced groups, unbalanced participation

Intimidation, fear

Voice volume, access to microphones

Room layout, screen position, and body position

1. Results

The presentation project is an ongoing part of the courses. However, as AI becomes more accessible to the general population, students are willing to use it to varying degrees. Overall, the materials were more comprehensible than in previous years, where many students would cut and paste pages from a Japanese Wikipedia page into a translation application and end up with something non-sensical and filled with vocabulary few in the room could understand. By using the prompts provided by the instructor, more level-appropriate information was processed, leading to a better understanding for all. Students understand this is a new reality, as evidenced by a brief post-presentation survey by the author.

Table 1. Student opinion of AI use.

Q: In the next year or two, do you think you will use AI in your research_____?

	a lot more than now	more than now	not very much	not at all
2024 (n=17)	2	13	2	0
2023 (n=48)	8	28	8	4

In one class, students completed a simple survey that asked them to indicate the likelihood of using AI in the next year or two. Perhaps not surprisingly, the more recent cohort saw fewer students giving the opinion that they would not be using AI than those students who responded just a year ago.

2. Discussion

This paper describes how AI, along with instructor coordination, can supply students with level-appropriate presentation materials specific to their research topic. The goal is to increase motivation and improve comprehension of both the presenter and their audience.

3. Conclusions

Instructors have many tools at their disposal; however, until the age of the Internet, they were all paper-based. With the explosion of internet access has come advances in online learn-

ing. Now, with the spread of AI, there are more options for individualized study and research. That said, live production is still an essential part of language learning, and presentations are a useful way to prepare students for future public endeavors.

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