

Applying artificial intelligence (AI) to create intrinsic motivation for engineering students at Vinh Long University of Technology Education

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Abstract: *The study made an investigation on what challenges VLUTE students encounter and the reasons why they are motivated or demotivated from learning English. The research was conducted with the participation of 77 non-majored students, who were studying English at the level of A2-B1. At the end of the research, a questionnaire is given to students so that they can state their opinion on how much interest they have for sitting in the English classes and whether the technique can help them improve their interests. The study is aimed at contributing a voice to the existing literature in relation to the benefits of this method and more importantly, its aim is to find out how AI and Tech aids can advantage its participants and whether it should be expanded or not to improve learners' language learning results in general.*

Keywords: *Intrinsic motivation, EFL classroom, AI*

1. Introduction

In Vietnam, foreign languages play a very important role within the curriculum. From elementary to college and university levels, they are integral parts of the educational policy.

At Vinh Long University of Technology Education, the lecturers at the Foreign Language Division of The Faculty of Fundamental Sciences are deeply committed to enhancing the quality of English instruction for their students. They actively engage in professional development opportunities, attending various training sessions and courses to refine their skills and teaching methods. Furthermore, the center consistently updates and innovates its teaching materials and approaches to facilitate effective English language learning.

However, despite these efforts, instructors encounter a big challenge is that most non-majored English students meet the training standards at a low level. The majority of students have an amount of accumulated knowledge that is not commensurate with the amount of English they have learned in high school English teaching programs. The gap in students' basic knowledge of vocabulary and grammar is relatively large. Language skills are very limited, especially Writing, Listening and Speaking skills, which are mostly average or below average. Many students find it difficult to comprehend even basic questions posed by their teachers.

The questions then arises: (1) What are the underlying causes of this issue? (2) What strategies can be implemented to help non-majored English students achieve higher academic performance in English language acquisition process?

2. Background of the study

Students enrolling in Bachelor or Engineering Programs at Vinh Long University of Technology Education are typically aged 18, up to 21. Many of them have been exposed to English language education from an early age, consistently studying it from the third grade through to the completion of their high school education in the twelfth grade. They share common characteristics as described:

2.1. Diverse Academic Disciplines: The students are enrolled in various academic disciplines, indicating a wide range of interests and areas of study. This diversity suggests that the English language course is likely to have students from different academic backgrounds, and each brings their own perspectives and knowledge.

2.2. Mixed Levels of English Proficiency: The students have various degrees of proficiency in English. This is a crucial point for teaching context as it implies the need for differentiated instructions and possibly individualized learning plans to accommodate these various levels.

2.3. Mandatory English Curriculum: Despite their primary focus being on different fields, English is

a compulsory subject in their university education. To meet graduation requirements, they must attain a proficiency level of A2 or B1, depending on their major. This highlights the importance of English language skills in their overall educational experience and possibly in their future professional lives.

2.4. Course Structure and Duration: The primary coursebook is “Objective PET” by Louise Hashemi and Barbara Thomas. This is an integrated coursebook that emphasizes on four key skills - Listening, Speaking, Reading, and Writing and along with a focus on exam skills. For General English 1, 2 and 3 students are required to cover 16 units within a total time frame of 150 periods.

3. Current situation

Drawing from teaching experience, several primary reasons can be outlined:

Firstly, the English proficiency levels among students vary widely. Typically, a class consists of students ranging from elementary to intermediate levels. Urban students often possess stronger English skills compared to their rural counterparts due to greater exposure and earlier initiation into English learning. This diversity in proficiency levels poses difficulties for instructors in effectively managing the class and catering to the needs of all learners. Focusing on fundamental concepts can aid weaker or average students in understanding the lessons, however, it might bore good students and slow their progress since they require more advanced instructions.

Secondly, the high school English learning environment often leads to a significant challenge for many students when they enter university. The English curriculum in high school tends to be overly demanding. From grade 6 to grade 12, students typically have 10-12 lessons per school year covering various topics. However, the content of the program is overloaded compared to the time available. This leaves teachers with insufficient time to cover all four language skills effectively. As a result, students mainly focus on grammar and vocabulary, with little practice in listening, speaking, and writing. Consequently, when students move on to university-level studies, they often face difficulties in these areas.

In addition to the objective reasons outlined earlier, subjective factors originating from the students also have a significant impact on their foreign language learning.

Firstly, many students attend English classes with a mindset of simply getting through, driven by a fear of receiving poor grades or failing exams. As a result, they may not fully engage with the lessons or the teacher’s instructions. This leads to taking exams many times and getting low scores in the end. This can also create a misconception among some students that exam questions are too difficult, when in reality, all exam content is covered in the English curriculum they were taught in the lessons and throughout their academic journey.

Another important factor that affects how well learners learn in general, and languages in particular is their attitude and motivation. These two factors are closely connected. We surveyed 77 students, including 27 in A2 exam preparation, 30 in class AV3 (General English 3), and 20 in class AV2 (General English 2), course 65. Of these, 47 students (about 61%) study English because they have to - it’s a requirement. Another 20 students (about 26%) learn English because they want to get a good job after they finish school. Only 10 students (about 13%) study English because they enjoy it and want to communicate better and learn about English-speaking cultures. Dornyei (1994) says motivation is really important in learning a new language. If learners aren’t motivated, they won’t make much effort to do the tasks needed to learn the language. Due to a lack of proper motivation for learning, certain students tend to have a passive approach.

4. Feasible solutions

4.1. From the students’ point of view: They should adjust their attitude and study methods for learning English. This adaptation will help them strengthen their English skills, pass their final exams, and earn certificates with good grades. Achieving high results can then make English a useful tool for their future work. For weak students, they need to actively engage in learning English from the beginning to build a base, then learn to develop and improve their Listening - Speaking - Reading - Writing skills. For students at an intermediate level, it’s important to join courses to strengthen and enhance Listening, Speaking, Reading, and Writing skills, with a focus on listening and speaking. To achieve this, we should promote initiatives that motivate students to engage in self-study.

4.2. Regarding the lectures’ role: Lectures should improve the use of technology in teaching, continuously learn and enhance teaching skills, share

knowledge with colleagues inside and outside the school. To encourage creativity and help students discover new knowledge, they should also instruct their students how to learn English effectively.

4.3. Let take these tools as great examples:

4.3.1. Microsoft Copilot: This AI tool has become popular and highly regarded in Singapore. It assists teachers with lesson planning by proposing or drafting activities, resources, and assessments that match learning goals. Additionally, Copilot can facilitate personalized learning by helping create customized content, feedback, and support for students according to their unique needs and learning preferences.

4.3.2. Chat GPT: The authors of this paper apply Chat GPT to help students receive feedback for their writings automatically. It is beneficial for them to save time, and it is also labor-saving for teachers. However, Chat GPT will never be specific like an authentic teacher. In addition, this AI tool is also good for brainstorming ideas before writing, and scoring with a sample and a rubric too.

4.3.3. Capcut: CapCut serves as an effective resource in educational environments. For example, students can produce video projects that capture experiments or field trips, while teachers can create captivating summaries of lessons. According to the SAMR model (Substitution, Augmentation, Modification, Redefinition), CapCut can be applied across all stages, enriching and transforming the educational experience.

4.3.4. Wordwall, Quiziz, Padlet, Kahoot!, etc: Game-based learning encourages active engagement by placing learners in interactive and stimulating game scenarios. Research indicates that such game-based methods significantly boost cognitive abilities, including problem-solving, critical thinking, and decision-making (Mao et al., 2021).

4.3.5. Duolingo: Duolingo is an online language learning platform that incorporates game-like elements. It provides a digital method for users of all ages and skill levels to learn a wide range of languages. With the help of advanced algorithms, it can tailor the experience to assist individual learners in areas where they need improvement.

4.3.6. Grammarly: Grammarly is an intelligent English writing assistant that uses AI to help users improve their writing skills.

4.3.7. Main features:

- Checks and corrects grammar, spelling,

punctuation, and word usage errors.

- Offers suggestions to improve sentence structure, making writing clearer and more understandable.

- Analyzes writing style and recommends changes to suit the purpose and audience of the text.

4.4. In terms of the university's board: English classes should be designed to match the learners' levels. Class sizes ideally range from 20 to 25 students per class. After assessing students' English proficiency, classes should be organized according to students' ability to ensure more suitable and effective teaching and learning approaches. Additionally, the school should provide specialized classrooms equipped with English teaching materials. Regular English activities organized by the school will give students opportunities to practice their language skills.

5. Conclusions and limitations of the study

English is considered an easy and accessible language, yet a lack of learning motivation and proper studying techniques can hinder progress. Moreover, learning English requires continuous practice and improvement. While support from the school and lectures is beneficial, students who are dedicated to daily self-study and practice achieve success in their English learning journey.

Although this action research achieved positive results to somewhat extent, some limitations still exist. The number of participants is limited (77) and the time conducting is quite short (3 months). Therefore, future researches are suggested to examine in a larger group of students in a longer time to have more robust findings.

References

- [1]. Dornyei, Z. (2001), *Motivational strategies in the classroom*. Cambridge: Cambridge University Press.
- [2]. Dornyei, Z. (2001), *Teaching and Researching motivation*. New York: Longman
- [3]. Li, R. (2020, November). *Using artificial intelligence in learning English as a foreign language: an examination of IELTS LIULISHUO as an online platform*. In Conference Proceedings. Innovation in Language Learning 2020.
- [4]. Oletić, A., & Ilić, N. (2014). *Intrinsic and extrinsic motivation for learning English as a foreign language*. Elta Journal, 2(2), 23-38.
- [5]. Purnama, N. A., Rahayu, N. S., & Yugafiati, R. (2019). *Students' motivation in learning English*. PROJECT (Professional Journal of English Education), 2(4), 539.