

THE USE OF ARTIFICIAL INTELLIGENCE IN CREATIVITY ENHANCEMENT OF EFL STUDENTS: A CHECKLIST APPROACH

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Abstract: Lately, it has been reported that modern education involves the application of artificial intelligence. It is the same case with English as a foreign language which is in the broader category of languages. The environment created by such features is quite engaging while appealing to one's imagination, fluency, flexibility, and elaboration in a very fascinating way. There has been mention of tools of artificial intelligence (AI) in which learners are not defined as creative, nor are they restricted from using their language to express their creativity or enhance their speech. This has provided students with unique materials as well as self-made feedback. Such progress would help artificial intelligence (AI) become a powerful tool in enhancing cognitive and creative aspects in EFL education along with assistance. In other words, this approach furnishing EFL students with different AI enabled resources and including AI tools may enhance creativity of students in EFL classrooms. It also brings together artificial intelligence in creativity enhancement and a checklist based view. The participants include teachers and learners who utilize AI-based instruction, while the instruments employed were checklists, interviews, and classroom observations. The results indicate that there, notwithstanding the fact that AI was said to help increase creativity. So, this was partly due to challenges like lack of technical skills and integration. There are suggestions of more organized training and better assistance for optimal utilization of AI in educational use.

INTRODUCTION

In their opinion (Chen et al., 2020) AI has become the focus of attention because it is well known that supercomputers are equipped with remarkable processing power in terms of adaptiveness, such as sensors that enable AI to copy human functions both at the intellectual and operational level, thus enhancing the interaction of humans and machines. The application of AI systems is understandable as well, they are starting to include intelligent buildings which would be able to control air quality, temperature and even sound systems to meet the residents' emotions. In education, the AI is also expanding its boundaries from supercomputers to much

more embedded computing systems. In (Walter, 2024) view, the introduction of AI in education is not only an improvement of technology but a revolution of how students learn. Artificial Intelligence provides a way of teaching other than the old one and makes students experience a more personal approach to learning since it responds to different learning needs. So the need in construction of supercomputers is growing and in general education is improving quality-wise when we talk about nut and bolts, computers included and this suggests that new ways of teaching and learning are emerging that make extensive utilization of robotic agents. This would mean that AI is the beginning of change for the 21st century education.

Additionally, it's a type of environment where one is bound to grow many skill sets. technology integration effort in particular the use of artificial intelligence AI in education has significant impacts on the learning processes and methods as mentioned by (Rahayu, 2023). AI application in educational context attracts a great deal of attention and is of interest to many experts and practitioners. In a way, this could elevate learning to another level, offering high quality that Descent assessment could provide, as well as feasible feedback. Apart from that, some forms of defect in judgement might reduce damage and intensity of novice learning and teachers in contexts needed by students and thus enhance learning. AI can be used to gain better insights by processing data quickly and accurately which assistance in delivering better quality education. Therefore, the assimilation of AI in education enhances productivity and presents opportunities for more technologies that will change the education sector. As highlighted by (Paek & Kim, 2021), AI is impacting deeply and drastically changing the educational world. It transforms focus from knowledge as something static to problem solving; students are now problem solvers, is slowly maturing into a worldview fostering multiple perspectives around the central pedestal of collaboration and innovation. Furthermore, that form of education which was once inclusive and acquired during industrialization, has today been shifted to a more individualized context owing to ICT. Two factors are contributing to this alteration in the meanings, contents, and processes of education which in turn leads to fundamental changes in the more accessible and technologically integrated education model.

Learning of the foreign languages helps the creation of new different ideas, which may otherwise be an expression of communication without speech and can be a direct speech response to someone's thought embedded in previous interaction. Hence, the language learning activities must concentrate on thinking skills development to enhance creativity as claimed by (Huh and Lee, 2020). The process of language learning enhances the proficiency of the language, and also the level of cognition that is essential in communication. In the same manner,

the use of AI in education will further be beneficial towards developing the students' cognitive and imaginative abilities. In particular, as (Lin and Chen, 2024) posit, AI has the ability to sequentially present the most appropriate learning materials, which would in the greatest proportions limit a learner's scope from other forms of content. With the help of AI, content is tailored to students' interests and learning goals by means of automatic data processing algorithms, sentiment analysis, and recommendation systems in order to improve students' internal drive and interest. Moreover, it will be of great importance in some of the key factors impacting on the educational experience, such as academic emotions. They would provide opportunities for new skill sets and create the context in which students would be getting involved in learning much more actively and deeply.

RESEARCH METHODS

The present descriptive qualitative study explores the influence of AI in EFL in the context of prompting creativity through the use of checklist evaluation. This also seeks to develop a framework for assessing the creativity-enhancing aspects of the AI tools applied to EFL teaching and learning. Furthermore it examines the advantages and disadvantages those tools can offer. The target participants for this study were purposefully chosen AI-integrated EFL teachers and learners. Data collection includes an evaluation checklist of four: creativity AI dimensions: originality, fluency, flexibility, and elaboration, semi-structured interviews to add more depth, and classroom observations to understand how AI was integrated in the teaching process.

Among the data analysis methods used are thematic analysis and descriptive statistics, updating interventions in AI using triangulation should ideally yield results that are holistic as well as coherent. Aspects of reliability and validity of the data is generally ensured through pilot testing of checklists and a consistent interview approach. Some of these ethical considerations involve seeking informed consent and ensuring confidentiality of the data collected. It is anticipated that the study will bear some results on AI in EFL, although it is acknowledged that the impact of having participants with varying abilities in AI may limit the findings.



RESULTS AND DISCUSSION

Indeed, for the teaching and learning of English as a Foreign Language, some studies substantiate the claim that AI enhances creativity. Analyzing the evaluation results from the A checklist using AI, it was established that AI tools possess creativity enhancing or inducing dimensions such as, in language learning, an element that fosters originality, fluency, flexibility, and elaboration. AI assisted educators maintained that it provided various possibilities in the creation of learning materials, which makes students think and create more. For instance, various AI tools help students to speak and write without limits such as language content creation applications and chatbots focusing on more creative attributes of the students. The students also mentioned that they became more proficient in different languages because of their ability to express themselves and write more complex sentences. They were able to recall certain types of texts and form conversations with the aid of AI tools that provided instant feedback. This parallels with a greater fluency felt by students when utilized English in communicating. Moreover, AI tends to offer learners opportunities where they can self-pace their learning through certain materials and at times when they prefer.

Out of the numerous advantages, some challenges are inherent, however. For example, many learners as well as teachers do not have the expertise required to use AI devices to the fullest extent in the classroom. A few instructors have found it quite difficult to carry out AI use at their ends due to the integrated models with the present curriculum while students struggle to understand AI use because many AI tools have numerous complicated features and functions. These barriers brought forth the impediments and effectiveness of AI in as far as the students learning English as a foreign language is concerned. Amid such findings Sadler suggests that in relation to creativity in EFL education AI has considerable relevance on a theoretical level, however a proper training for both staff and students has to be provided otherwise these tools will not be used to their full potential. Another cited method on this one involves more structure in teaching how to use AI, which would enhance understanding and skills for staff and students to harness the potentials of AI even better. Be that as it may, this study found that technology was a necessary condition to ensure smooth and successful implementation of AI within educational systems. A long-term follow-up study on the level of use and effects of AI on creative language and language ability of EFL students is also needed.

AI Checklist Evaluation Table

Creativity Dimension	Criteria	Score (1-5)
Originality	AI encourages the creation of new ideas	4
	AI generates unique learning materials	5
Fluency	AI enables students to speak more fluently	4
	AI provides instant feedback during interaction	5
Flexibility	AI can be tailored to meet students' needs	4
	AI offers diverse learning options	5
Elaboration	AI helps students to develop ideas in depth	4
	AI supports the development of detailed content	4

Table Expalanation:

1. **Originality:** AI has given an opportunity for learners to envisage and come up with artifacts based on their thoughts. It creates educational resources beyond the textbook by providing a wider and lively learning opportunity.
 - a) **AI encourages the creation of new ideas** (Score: 4): This AI tool would be beneficial to students studying English for the purpose of generating new ideas. AI-enabled text generators and chatbots provide students with new ways of interacting with their material and suggest new ideas. They have degree of autonomy and willingness to come up with single 'answers' or outputs in the course of learning.
 - b) **AI generates unique materials** (Score: 5): The touch of creating the right and engaging content shifted to the algorithms. AI has presented an opportunity to create materials other than the usual such as textbooks. This position the learner in a captivating and actively participative learning process by supplying them with resources that excite their creative potential to generate new concepts.
2. **Fluency:** With the advances in artificial intelligence, students now receive interactive and immediate feedback which increases fluency both in speaking and writing.
 - a) **AI allows students to speak more fluently** (Score: 4): With the advances in artificial intelligence, students now receive interactive and immediate feedback which increases fluency both in speaking and writing. AI tools in English learning have shown that they can get the speaking fluency up among the school children. Students using AI applications or chatbots can practice speaking English without the stress or anxiety of being judged by people. An AI assistant

can provide a truly conversational experience. This way, the student is able to speak in English more frequently, thus enhancing his or her speaking fluency.

- b) **AI provides quick feedback during interactions** (Score: 5): AI gives the students a sense of immediacy in feedbacks as they learn. For example, when students are speaking or writing in English while doing their exercises, the AI system can offer them corrections or suggestions at that time. This instant feedback can help a learner make quick adjustments and thus enhance the rate at which a language is acquired and the level of fluency as well. Thus learning would be on a one to one basis. Activities could be selected at children's rate enhancing the learning experience of every individual child. AI could be adapted to each child's needs in particular from which he or she can gain the most.
3. **Flexibility:** Thus, teaching would become customized. It could be done at the pace of students thus giving every learner a distinctive method of learning.
- a) **AI can be tailored to students' needs** (Score: 4): AI could be fitted into every child and that child would gain a very useful experience out of it. For example, when conducting exercises, AI tools are able to alter the level of difficulty of the exercise according to the student's level which allows the student to take control of the learning pace. This way, when students are given varied tasks, the tasks are likely to enhance their confidence and effectiveness during the learning process.
 - b) **AI offers various learning options** (Score: 5): Flexibility is another benefit AI provides when it comes to supplying people with different kinds of activities for learning. From the different stages, students could select other types of activity such as speaking, writing or listening due to the fact that they have different learning styles. Also, as they can learn in a number of ways, there's an abundance of material available and this simply adds to the flexibility part of the learning experience. It is AI however which would help in making students visualize more and be creative; in fact it expands thinking and makes things more complicated or advanced but still speech or writing completion have to be done.

4. **Elaboration:** Although, AI would assist in aiding students develop and create ideas more richly; basically, it allows expansion of thought and making things more complex, along with being well developed, still remains to be in oral or written form.
 - a) **AI helps students develop ideas more deeply** (Score: 4): AI tools such as writing apps or conversation platforms allow students to expand on their ideas. For example, AI can prompt students to elaborate or expand their responses during speaking or writing exercises, giving them opportunities to deepen their understanding of specific topics and create richer, more complex answers.
 - b) **AI supports the development of detailed content** (Score: 4): AI generates the ideas but also goes beyond ideas to expand and elaborate through more contents or suggestions or references. Consequently, students usually have a more comprehensive and detailed job, whether in discussion, writing, or any other assignments they complete. It promotes students' creativity and the ability to produce a very well-laid and in-depth content form.

Score Explanation:

- a) **1 = Very Poor / No Effect:** AI is of little or no impact on the dimension under consideration. It implies that AI does not encourage any creativity and does not develop this aspect of the learning process.
- b) **2 = Poor:** AI has limited or minimal effect. It virtually does not support fostering any creativity related to the process of learning; its weak induction reflects.
- c) **3 = Fair / Moderate Effect:** AI is more towards a little less than an average impact, and it can bring a certain degree of contribution. It could work under certain conditions but lacks some regularity or depth. For example, it could show signs of creativity in performing puzzles, not in some tasks or contexts. It is more helpful than unhelpful but still not very strong.
- d) **4 = Good:** AI would show a strong aspect of positive impact. It would help develop the creativity quite well in terms of support to be brought to the dimension under consideration. There would always be some opportunities for improvement, but the impact has generally been wide-reaching and valuable, facilitating a richer and deeper learning experience.
- e) **5 = Excellent:** Highest grade, which means that AI has a very significant and almost compelling impact. Supports creativity in a rather close and groundbreaking manner,

developing skills and enriching the learning experience. In this case, AI is very effective and dependable to greatly boost the creativity and performance of students.

CONCLUSIONS AND RECOMMENDATION

By imparting an education in English as a foreign language (EFL), artificial intelligence (AI) significantly facilitates the improvement of creativity among students. The checklist evaluation results reveal that AI invigorates creativity dimensions like originality, fluency, flexibility and ideation in language learning. Generally, the use of AI tools- language learning apps and chatbots- enable students to interact, discover their speaking and writing skills, benefit from instant feedback to spur them forward at a more rapid pace. However, the major problems faced by educators and some learners are lack of technical skills, and the integration of the AI tool may be tricky with the current curricula. For the enhancement of Artificial Intelligence (AI) into the English as a Foreign Language (EFL) education system, it is recommended that educational institutions provide comprehensive training for the educators and students on effective uses of the AI tools. Instead, the curriculum would be structured to use AI in creativity in writing and speaking themes. Furthermore, there would be strong technical backup and accessible AI tools to avoid any technical hitches. Finally, AI must be employed in establishing interactive and personalized learning experiences through collaborative learning opportunities. Future inquiry is required to study how considerably it changes EFL classroom language proficiency and creativity over the years.

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