



ARTIFICIAL INTELLIGENCE IN ENGLISH LANGUAGE TEACHING THROUGH ONLINE TOOL- W&I

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Abstract

The evolution of knowledge acquisition has aimed at ability to provide stimulation to human intelligence. This paper concerns with reviewing the use of AI in language teaching and learning. Specifically, through content analysis, selected bibliometrics, and practical implementation of automated writing evaluation (AWE) tool – ‘Write & improve’ into language learning at the high school level. At first ,the author studied various works of AI in the realm of education with special attention being paid to AWE as a cutting edge software which uses AI to assess students’ writing. The data collected reflects that AI algorithms used in different teaching websites help students manage their work and encourage them to write and revise. Within the framework of the article’s written task, high school students, who study English as their core subject at VIBGYOR High, Airoli, have been chosen. The study and experiment proved ‘Write & Improve’ to be highly effective among language learners, thus is an excellent tool for language learning.

Keywords: AI- Artificial Intelligence, AWE- Automated Writing Evaluation, W&I- Write and Improve.

INTRODUCTION

Theory

According to Oxford encyclopedia, Artificial Intelligence is the ability of a digital computer or computer controlled robots to perform intelligent tasks associated with human. Such machines are capable of conducting thought processes and respond like human beings. AI is now prolifically used in education sector.

1950’s is considered the birth of period of AI, Turing tried to define ,when a system designed by humans could be called intelligent. In 1956, John Mc Carthy proposed that the study of AI be based on the fact that learning can be so accurately explained that a machine can be made to stimulate it.

Applying AI to language learning

Learning a new language is difficult yet rewarding. The perks involved are- new acquaintances, business opportunities ,travel and access to tons of information. But can you really understand the peculiarity of a language without talking to locals? AI thinks you can!

AI can create group in students who are suited for particular tasks. This is known as adaptive group formation. AI application software can instantly grade students’ essays, these are then



added in the central database and the future essays can be compared using the previous essays present in the database. Artificial Intelligence in education is a computer based technology that provides personalised adaptive and insightful teaching. The key part of AIED system is domain knowledge model that provides the capability of the system to complete the tasks that make the students to judge to contribute to the solution. The student model that provides representation of the learner in terms of their developing knowledge and skills. The Model of pedagogy is the component that represents teaching capability of the system and finally the Interface component that provides the channel through which the learner and the system communicate. (Jayadesh Kengam, Bournemouth University)

Various tools have been invented for language learning: **Chatbots**-this AI powered Chatbots provides customized answers in response to your messages and can grade your performances or give tips on what you need to improve.

AI has aided **machine translation** to take a giant leap forward along with the improved quality of translation, neural machine translation into foreign language learning. Machine translation as a Bad Model is a pedagogical method whereby learners identify inconsistencies and errors in machine translated texts and correct them. This helps students understand a language and its peculiarities better and improve comprehension, sentence composition, vocabulary in the target language.

Personalised textbooks are great aids for learners to proceed at their own speed and understandings. When a language learning solution knows your progress and adapts to needs based on your personal data it can provide you with learning materials you need. Textbook customization can also be of value to teachers. If teachers can upload their educational programs into an artificial intelligence system, the system could generate textbooks customised for a specific school, course or even group of students.

Experimental Research method

Analysis and synthesis to reveal the effectiveness of AWE tool 'Write & Improve'. This study critically examined researched publications on AI in education. Selected texts were identified and fully analyzed. Following criteria was followed strictly in the screening and selection process.:

- i) Research ought to be related to academic scenario, hence published research in commercial market, health care system and non-educational system were thus excluded.
- ii) Research must be data supported empirical studies; article solely based on personal experience was excluded.
- iii) Theoretical, conceptual and literature review papers were also excluded from full analysis but they were carefully read to strengthen background knowledge and broaden the theoretical foundation for developing a general understanding of AI in education.

The experimental part presents the findings of 'Write & Improve' AI language tool, at VIBGYOR High, Airoli. We had our secondary Cambridge students, who study First Language English as their main course for IGCSE. Students with different English proficiency levels were selected B1 (pre-intermediate) to B2 (upper intermediate). According to CEFR language proficiency level are:

A1 (Beginners)



- A2(Elementary)
- B1(Pre- Intermediate)
- B1+(Intermediate)
- B2(Upper Intermediate)
- C1(Advance)
- C2(Proficient User)

Firstly, students complete various written tasks using ‘Write & Improve’ online. Secondly, students received corrected feedback for their complete assignment. Finally, the research hers drew conclusion from the results.

For the study AWE ‘Write & Improve’ tool was used which is a free online tool developed by Cambridge Assessment English ([URL:https://writeandimprove.com/](https://writeandimprove.com/))

Overview of ‘Write and Improve’

AI has penetrated in every aspect of education, recently researchers have broadened its horizon from STEM subjects to languages and Arts. ‘Write & Improve’ is an AI driven online tool, developed by Cambridge Assessment English Project at the University of Cambridge to encourage students to write by assessing their scripts and providing immediate feedback based on Common European Framework of Reference (CEFR). The component of the software is tabled below.

Table 1: Component of ‘Write & Improve’

| Name of the tool | Designer of the tool | Criteria for feedback |
|------------------|--|--|
| Write & Improve | Cambridge University Cambridge Assessment of English | Content Communicative Achievement Organization Language |

The focus of the study was the initial section of the program- Write & Improve workbook as it is available free of charge. Both teachers and participants can create their own profile and sign in to access various writing task for every CEFR levels. Each CEFR level has sample scripts for reference. Additional section of W&I Business and W&I Just for Fun are available for specific learners. The Test Zone section provides tasks for International Cambridge Exams- IELTS General, IELTS Academics, B2 Frist Training. Class View section has additional ready-to-use tasks.

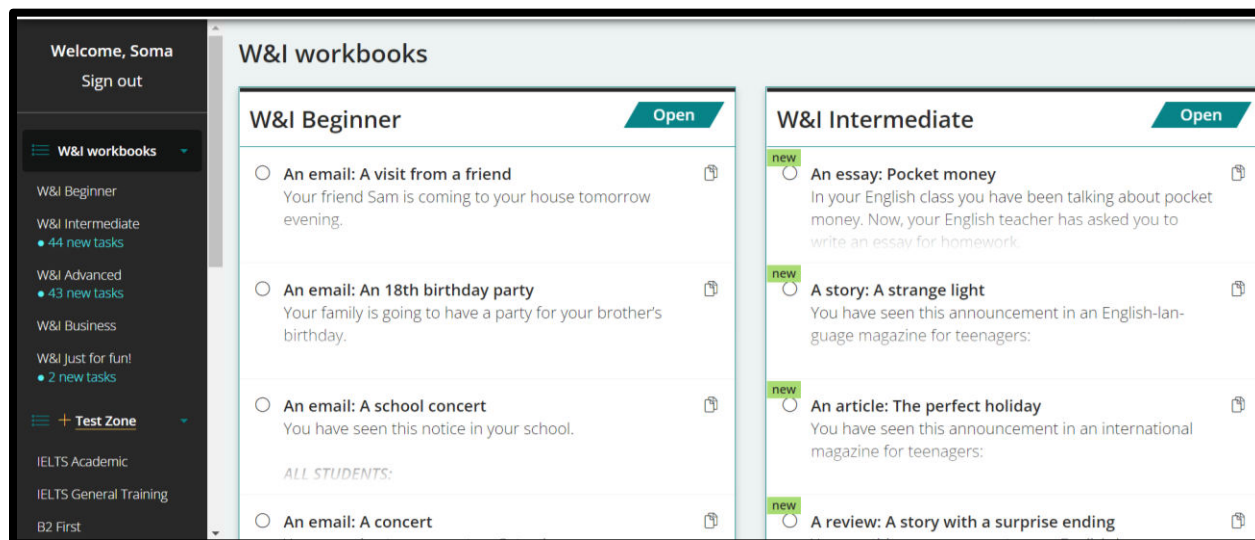


Fig.1: Interface of Write & Improve

Marianne Mikolov, an advocate of corrective feedback, states that it's a traditional but effective way of assessment of written tasks. Corrective feedback provides critical views and comments for students' works. Though Indirect corrective feedback: highlighting, underlining and coding, students come to know the concern areas and can-do self-correction and self-reformation.

In this research, it was found how AI algorithms are used in the tool 'Write & Improve' in language learning and teaching with the main focus given to the writing tasks. The criteria of corrective feedback in the tool 'Write & Improve' is tabulated below:

| Criteria of corrective Feedback | What does it assess? |
|---------------------------------|---|
| Content | Extend to which the learner has completed the task. |
| Communicative achievement | Appropriateness of the written tasks. |
| Organization | Structure and format of writing |
| Language | Use of lexical and syntax. |

Table 2: Corrective feedback criteria in W&I

It is a platitude, that AI has revolutionized academic systems. It is extensively used in class and out class. AI using AWE tools (e.g. Write & Improve) are providing automated feedback on errors in students' tasks. Moreover, they provide constructive feedback on the components of writing rubrics like organization and development of ideas. (Liu & Kunnan 2016).

Various writing techniques are used to enhance writing skills, one of them is Process Writing where both students and teachers collaborate to produce a written text.' Write & Improve' utilizes this process writing method for meeting Cambridge criteria for assessing writing (content, communicative achievement, organization and language).



Evaluation of Write and Improve AI tool

The objective of this paper is to prove the research hypothesis that AI integrated online language tool ‘Write and Improve’ can help students help develop and enhance their writing skills. To this purpose the interviewers were asked the following questions:

1. Are you satisfied with online teaching?
2. Are you familiar with AI driven online tools?
3. Is the online AWE tool ‘Write & Improve’ effective means of improving writing skills?
4. Does AWE tool ‘Write & Improve’ facilitate the process of learning?
5. Is the process of learning with the AWE tool ‘Write & Improve’ enjoyable than other software?
6. Is write and improve feedback more efficient compared to teacher corrective feedback?

As part of this study ,the secondary students of VIBGYOR High, Airoli were interviewed to find out the feasibility and success rate of integrating AI driven AWE tools in English teaching, learning and assessment.

DISCUSSION

The findings of the experiment is clearly stated in the bar diagram below (Fig. 3). From it we can conclude that majority of students (37%) find AWE tool effective both for online and offline language study.9-5% of the students find online tool enjoyable. Finally, the research establishes the truth that employment and usage of AI driven tools in language studies in secondary level enhances various communicative competencies. Specifically, AI driven online tool of ‘Write & Improve’ is considered by the students both effective and enjoyable way to hone up writing skills.

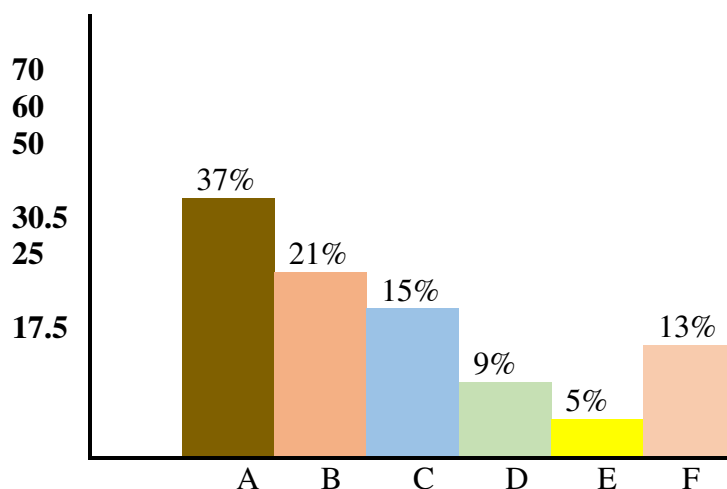


Fig.3.

- A- Approve online teaching.
- B- Familiar with online teaching aid.
- C- Students familiar with AWE tool ‘Write & Improve’.
- D- Students find AWE tool ‘Write & Improve’ effective.
- E- Students find ‘Write & Improve’ enjoyable.
- F- Students appreciate W&I feedback.



CONCLUSION

In recent times there is a deluge of AI driven language learning tools. In 2018-22, USA has seen 48% growth in AI market. India has seen a rise of 12% in 2018-22, in implementing in education system. AI technologies have great potential in education and language learning, in particular to increase access to learning opportunities., to scale up personalized learning experiences and to optimize methods and strategies for desired learning outcome. Experiments in the field of English language teaching has shown positive result of using AI driven AWE tools which make academic courses more dynamic and intense, help organize the process more effectively, enrich the communicative competencies, provides positive motivation while facilitating the independent work of the learner. Based on the analysis of the study result following conclusion was derived:

1. The use of 'Write & Improve' tool established its efficiency and practical utility in the sphere of English Language study.
2. Implementation of AI driven AWE tools is more likely to help enrich individual learning and assessment.
3. Corrective feedback has positive influence in writing tasks as it helps to avoid subjective human assessment.

LIMITATIONS AND RECOMMENDATIONS

This study is by no means comprehensive and has its limitations, more questionnaire statements along with wider variety of options could be employed, preceding in-depth interview with the research participants. The research sample in future studies could be larger, possibly involving research participants from more sections and schools. In this study we evaluated the efficiency of 'Write & Improve' online tool designed to facilitate students' writing skills, further studies may focus on integrating other tools online (e.g. Speak & Improve by Cambridge Assessment English) in EFL practice to boost communicative expertise. Future research can also include Language bots, Machine translation and personalized text books.

AI driven English Language apps and online tools are fast increasing and becoming popular among learners worldwide. But there are still unexplored fields in this area that deserve the attention of researchers and practitioners. As Finn had emphasized back in the 1960's, technology is "more than an invention- more than machines. It is a process and way of thinking." The growing AIED research would result into more practical guidelines and example for educators, together with new way of teaching and learning.

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