



Assessing the English Language Lecturers' Skill in Identifying Originality in Essay Writing Among Moroccan S2 Students

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Abstract

The review of recently published research studies on the use of Chat-GPT in writing academic essays showed that few empirical studies investigated English language Lecturers' ability to detect non-native speakers of English originality in writing narrative, descriptive, cause-and effect, comparison-and contrast essays at the university level. Given this concern, the current study aims to assess Moroccan English Language lecturers' ability to detect and identify semester 2 students' originality in writing different types of essays within the Department of English of Moulay Ismail University. To achieve the goal of this study, 25 English Language Lecturers from various Moroccan universities were selected to evaluate 1200 essays. Among these, 400 essays were generated using the free version of Chat-GPT4, 400 essays were produced by students with the assistance of Chat-GPT and Grammarly, and 400 essays were fully written by semester two students of the Department of Moulay Ismail without using neither Chat-GPT nor Grammarly. Obtained results showed that the scores of those essays that were generated by Chat-GPT scored higher results compared to those essays generated by Chat-GPT and Grammarly as an assistance tool, and those essays that were purely produced by undergraduate students. The current study also found that many Moroccan English language lecturers from different Moroccan universities find it challenging to detect and identify students' originality in writing academic essays especially in large size classes. More research is required to explore the effectiveness of the integration of A.I Chatbots in English Language Learning and Teaching at the university settings.

Keywords: *Originality, essays, detect, S2 students, English Department, Ghat-GPT, English Language lecturers*

1. Introduction

Despite the great effort made, without doubt, by the Moroccan English language lecturers across Morocco to improve and enhance the writing skills of their learners. Writing an effective essay is still one of the most challenging aspects for semester two students of the Department of English at Moulay Ismail University. Their grades on the Composition module showed that many of them did not validate this module because of the lack of vocabulary, poor grammar, spelling and punctuation mistakes, lack of accuracy, coherence and shortage of information about a specific topic etc... To overcome this challenge, some of them tend to incorporate Artificial Intelligence (AI) tools such as Chat-GPT and Grammarly into their learning process to improve their writing skills.

2. Review of the Literature

2.1 Chat-GPT in Writing Essays

Since its launch, Artificial Intelligence has transformed numerous aspects of our lives, including academic writing sphere. Recent research studies showed that AI tools such as Chat-GPT, Grammarly, M-Write and Hemingway Editor are used as assisted tools to improve the writing skills of non-native speakers of English. However, Chat-GPT proved to be one of the prominent tools for enhancing the quality of writing skills of tertiary students [4]. Because it helps students to organize their thoughts and receive feedback on their work [2-3], it can be used to generate ideas and brainstorm [12-14], it has the ability to create well-written student essays [8] that are almost indistinguishable from human writing [4], and it helps students revise their work effectively [3]. According to [3-4], Chat GPT provides suggestions for improvement, such as correcting grammar and punctuation errors and helping students to refine their writing style and structure. It can support student writing by providing appropriate directions related to content and organization as they write [14]. In this regard, [5] investigated whether Chat-GPT would improve Croatia students' essay grades,



reduce writing time, and affect text authenticity. Their study found no evidence that using Chat-GPT as a writing tool improves essay quality since the control group outperformed the experimental group in most parameters. In the same line of thought, [11] explored the impact of Chat-GPT on the writing skills of undergraduate students of Pakistan. Obtained results from their qualitative study found that Chat-GPT can have a positive and negative effect on the writing skills of the participants. This is also supported by [16] who warned that its use can threaten academic honesty and ethicality in writing. Another study by [14] studied the impact of Chat-GPT as a formative feedback tool on the writing skills of undergraduate ESL students in the context of India. The findings from the experimental group indicate a significant positive impact of Chat-GPT on students' academic writing skills. However, [8] claimed that AI can produce coherent language, and it is becoming increasingly challenging to distinguish AI sentences from those created by humans. Similarly, [4] confirmed that if a student uses Chat-GPT to research a topic, it may be more difficult for a teacher to detect its use.

The review of the above research studies on using Chat-GPT in writing academic essays showed that few empirical studies investigated English language Lecturers' ability to detect non-native speakers' originality in writing different types of essays at the university level. To address these concerns, the current study aims to assess Moroccan English Language lecturers' ability to detect and identify semester 2 students' originality in writing different types of essays within the Department of English of Moulay Ismail University.

Research Question

The study addressed the two following research questions:

RQ1: Does the use of Chat-GPT4 as an assistance tool in writing essays outperform human-written essays?

RQ 2: Are Moroccan English Language lecturers able to detect or identify students' originality in writing different types of essays in large size classes?

3. Methodology of Research

3.2 Participants:

The participants of this study include Semester two S2 students of the Department of English who were enrolled at the University of Moulay Ismail during the academic year 2023-2024. The total number of S2 students in the Department of English is 12366. The participants of the current study included 1200 students. This study also includes Moroccan English language lecturers from 6 Moroccan universities. The researcher contacted 75 professors to evaluate the participants' essays, but only 25 English language professors who were accepted to evaluate the essays of semester two students of the English Department. Each professor evaluated 48 essays including Human and A.I generated essays. The participants were asked first to grade essays and then to add their comments for the evaluations at the end of each essay. Participants were asked to submit their feedback within three weeks of receiving the 48 essays. The data were collected in Mai 2024. Table 1 shows in detail the background information of the participants of this work.

Table 1: Participants' Background

Age	Gender	Participants	Years of Teaching experience	Chat-GPT used
[30-47]	Female	5	[1-8]	yes
		1	10	no
[29-63]	Male	6	[2-14]	yes
		13	[9-30]	no



3.2 Research instruments

3.2.1 A questionnaire was utilized to assess how much the study participants incorporate AI tools such as Chat-GPT and Grammarly in writing various types of essays including descriptive, narrative, cause-and-effect, and comparison -and-contrast essays.

3.2.2 Human-written essays and A.I generated essays that were used to assess Moroccan English language Lecturers' ability to detect and identify semester two students' originality in writing essays in the context of the Department of English of Moulay Ismail University. These essays include 1200 different types of essays. Among these, 400 essays were fully generated using the free version Chat-GPT4, 400 essays were produced by students with the assistance of Chat-GPT and Grammarly, and 400 essays were fully written by semester two students of the Department of English.

3.3 Data Analysis:

The statistical SPSS software version 21 was employed to calculate the collected data. One –way ANOVA, T-tests and descriptive statistics including frequencies, percentages and cross tabulation were performed to answer research questions one and two.

4. Results and Discussion

4.1 Results

4.1.1 The Incorporation of Chat-GPT in Writing Essays

RQ1: Does the use of Chat-GPT4 as an assistance tool in writing essays outperform human-written essays?

Obtained results on the impact of the integration of Chat-GPT4 on semester two students of the Department of English showed that the grades of those essays fully generated by the free version of Chat-GPT4 scored higher grades compared to those essays which were generated using Chat-GPT4 and Grammarly as an assistance tools, and those purely generated by the participants themselves. Figure 2 shows in detail the participants' grades in writing essays with and without A.I.

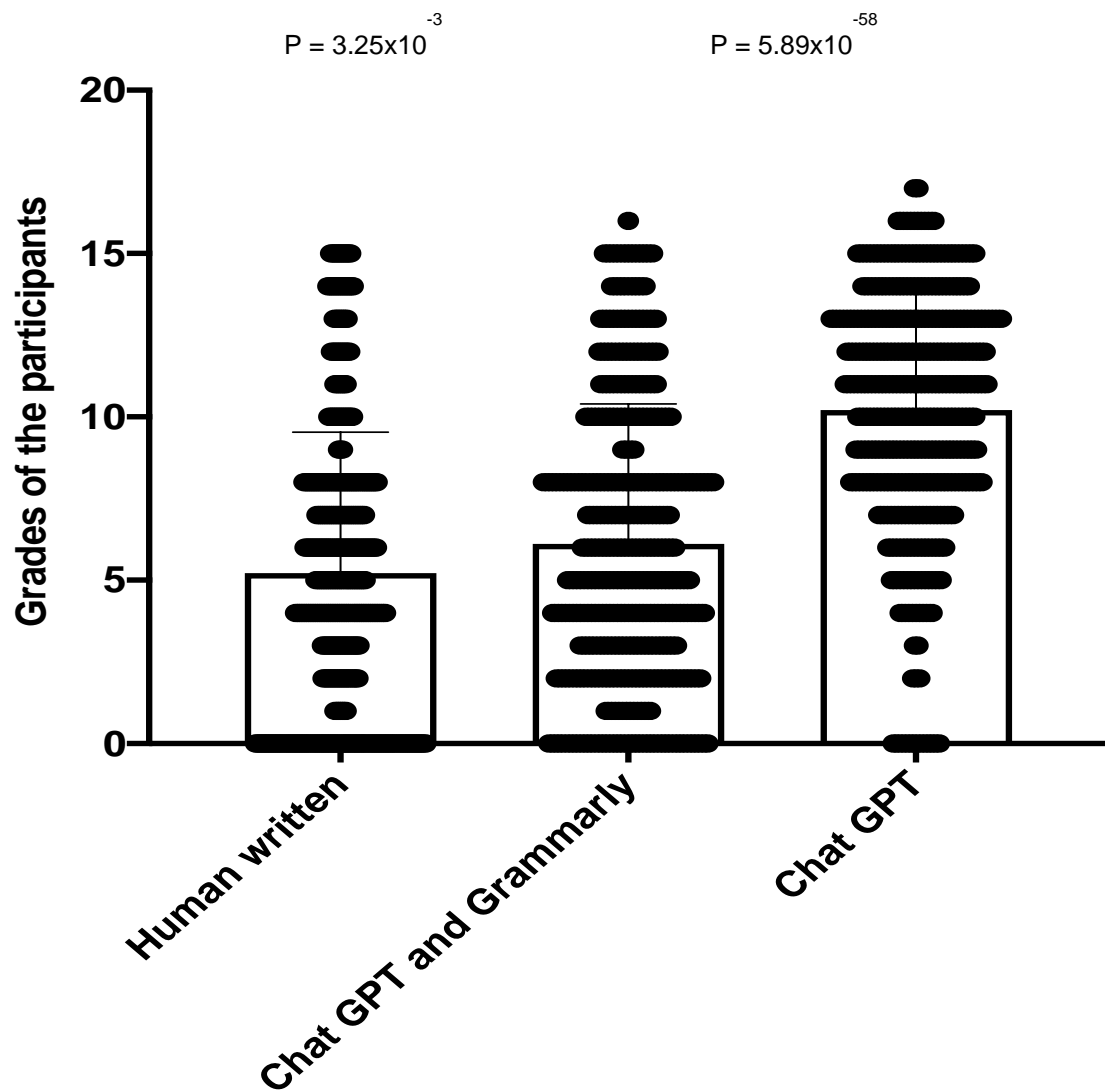


Figure 1: Participants' grades in writing essays with and without A.I

4.1.2 English Language Lecturers' Ability in Identifying Students' Originality in Essay Writing

RQ 2: Are Moroccan English Language lecturers able to detect or identify students' originality in writing different types of essays in large-size classes?

The results on Moroccan English language lecturers' ability to detect S2 students' originality in writing various types of essays in the context of the Department of English of Moulay Ismail University found that a significant amount of the participants of this study find it challenging to detect students' originality while assessing S2 students' essays. The researcher of this work replaced the difficult vocabulary of those essays, which were fully generated by GPT4, with simple vocabulary to appear human-written. It was also found that 3 out of 25 professors who have detected that some of those essays were fully generated by Chat-GPT. However, 7 out of 25 professors who have identified the incorporation of AI on the evaluated essays. 15 out of 25 Participants who have identified that those essays were fully produced by S2 students of Moulay Ismail University. Figure 2 illustrates the percentages of the participants who detected the use of AI tool, and those who did detect its use among S2 students.

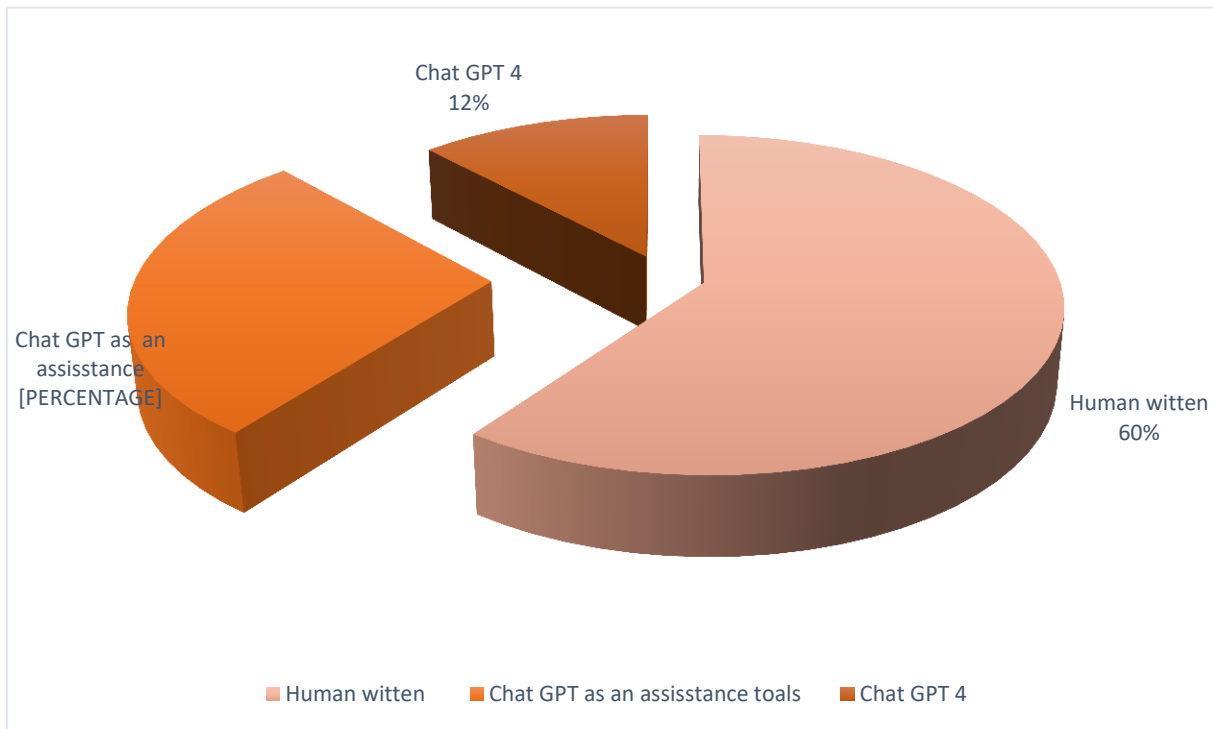


Figure 2: Percentages of A.I detection by the participants

4.2 Discussion

4.2.1 The Incorporation of Chat-GPT in Writing Essays

Results analysis on the integration of A.I tools such as Chat-GPT and Grammarly in writing essays among S2 students of the Department of English of Moulay Ismail demonstrated that non-human-written essays outperform Human-written essays. Results also found that the grades of those students who have integrated Chat-GPT4 in their learning process got higher scores compared to those students who relied on themselves got lower grades. The findings from this work proved that the use of Chat-GPT4 as formative feedback has the ability to create high-quality essays, help students to organize their thoughts, generate ideas, reduce brainstorming time, add appropriate supporting details to the main idea, and explain grammar rules when asked. The study found that AI tools can potentially enhance the academic writing of non-native speakers of English. The positive impact was evident in students' achievement of this work. Similar results were confirmed and supported by, [2], [3], [4], [6], [8], [9], [10], [11], [12], [13], and [14].

4.2.2 English Language Lecturers' Ability to Detect Students' Originality in Essay Writing.

The obtained results on human detection of A.I generated essays revealed that a large number of Moroccan English language lecturers from various Moroccan universities experienced difficulties in identifying and detecting students' originality in essays that were fully generated by Chat GPT4, or essays that were produced by S2 students with the support of Chat-GPT and Grammarly. It's worth noting that, the researcher of this work replaced the difficult vocabulary of those essays which were fully generated by GPT4 with simple vocabulary to appear human-written to increase the reliability of this work. Participants' feedback on Human-written essays stated the overuse of the same vocabulary and ideas, problems with coherence, no punctuation marks, a lot of spelling and grammatical mistakes, inappropriate transitional words, redundancy, literal translation, poor paraphrasing, ineffective thesis statement, and the lack of concert examples. As far as participants' comments on



Chat-GPT4 essays claimed the absence of spelling, grammatical and punctuation mistakes, high level of language used, no discussion for each main point, inadequate length of text, lack of hook, background information and the use of ineffective thesis statement. With respect to participants' feedback on essays generated with the support of A.I tools some of them declared that these essays are human written essays, due to the presence of language errors, lack of focus on main points, lack of consistency and accuracy, and the essay was shorter than expected. However, other participants assumed these essays are AI generated because of the lack of grammatical, spelling and syntax mistakes, provided information in a general manner and used of advanced vocabulary. Data analysis of the current study demonstrated the ability of humans to identify A.I generated essays is not higher compared to A.I detection software. Similar results were reported, confirmed and supported by, [1], [4], [7], [8], [9], [7], [5], [9] and [17].

5. Conclusion

This study is an attempt to assess Moroccan English Language Lecturers' ability to detect semester two students' originality in writing various types of essays in the context of the Department of English of Moulay Ismail University. Obtained results demonstrate that only 12% of the participants who were able to detect the use of Chat GPT4 by their learners. 28% of the participants who identified the incorporation of Chat GPT4 as an assistance tool into students' essay. However, 60% of our participants who have detected Human-written essays. Data analysis of this study also proved that the incorporation of Chat-GPT 4 in writing various types of essays has a positive impact on the writing skills of S2 students of the Department of English of Moulay Ismail University. It was also found that those essays generated by AI tools such as Chat GPT4 and Grammarly outperform those essays fully produced by S2 students. The results of this work proved that the incorporation of AI tools in the process of English language learning at the university level has both positive and negative effects on both students as well as their instructors. The findings of this work suggest conducting more research on exploring the effectiveness of the incorporation of A.I Chatbots in English Language Learning and Teaching at the university settings.

REFERENCES

- 1]. Alexander, K., Savvidou, C., & Alexander, C. (2023). Who wrote this essay? Detecting AI-generated writing in second language education in higher education. *Teaching English with Technology*, 23(2), 25-43.
- 2]. Allagui, B. (2023, June). Chatbot Feedback on students' writing: Typology of comments and effectiveness. In *International conference on computational science and its applications* (pp. 377-384). Cham: Springer Nature Switzerland.
- 3]. Abdullayeva, M., & Musayeva, Z. M. (2023, April). The Impact of Chat GPT on Student's Writing Skills: An Exploration of Ai-Assisted Writing Tools. In *International Conference of Education, Research and Innovation* (Vol. 1, No. 4, pp. 61-66).
- 4]. Božić, V., & Poola, I. (2023). Chat GPT and education. *Preprint*.
- 5]. Basic, Z., Banovac, A., Kruzic, I., & Jerkovic, I. (2023). Better by you, better than me, chatgpt3 as writing assistance in students' essays. *arXiv preprint arXiv:2302.04536*.
- 6]. Barrot, J. S. (2023). Using ChatGPT for second language writing: Pitfalls and potentials. *Assessing Writing*, 57, 100745.
- 7]. Clark, E., August, T., Serrano, S., Haduong, N., Gururangan, S., & Smith, N. A. (2021). All that's human is not gold: Evaluating human evaluation of generated text. *arXiv preprint arXiv:2107.00061*.
- 8]. Dergaa, I., Chamari, K., Zmijewski, P., & Saad, H. B. (2023). From human writing to artificial intelligence generated text: examining the prospects and potential threats of ChatGPT in academic writing. *Biology of sport*, 40(2), 615-622.



- 9]. Gayed, J. M., Carlon, M. K. J., Oriola, A. M., & Cross, J. S. (2022). Exploring an AI-based writing Assistant's impact on English language learners. *Computers and Education: Artificial Intelligence*, 3, 100055.
- 10]. Hong, W. C. H. (2023). The impact of ChatGPT on foreign language teaching and learning: Opportunities in education and research. *Journal of Educational Technology and Innovation*, 5(1)
- 11]. Imran, M., & Almusharraf, N. (2023). Analyzing the role of ChatGPT as a writing assistant at higher education level: A systematic review of the literature. *Contemporary Educational Technology*, 15(4), ep464.
- 12]. Lingard, L. (2023). Writing with ChatGPT: An illustration of its capacity, limitations & implications for academic writers. *Perspectives on medical education*, 12(1), 261.
- 13]. Marzuki, Widiati, U., Rusdin, D., Darwin, & Indrawati, I. (2023). The impact of AI writing tools on the content and organization of students' writing: EFL teachers' perspective. *Cogent Education*, 10(2), 2236469.
- 14]. Mahapatra, S. (2024). Impact of ChatGPT on ESL students' academic writing skills: a mixed methods intervention study. *Smart Learning Environments*, 11(1), 9
- 15]. Stokel-Walker, C. (2022). AI bot ChatGPT writes smart essays-should academics worry? *Nature*.
- 16]. Yan, D. (2023). Impact of ChatGPT on learners in a L2 writing practicum: An exploratory investigation. *Education and Information Technologies*, 28(11), 13943-13967
- 17]. Yan, D., Fauss, M., Hao, J., & Cui, W. (2023). Detection of AI-generated essays in writing assessment. *Psychological Testing and Assessment Modeling*, 65(2), 125-144