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I-CReST 2025:063-034 – Do ChatGPT Helpful in Preparing Assignment? A Qualitative Study Based on the Instructor Perspective

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ABSTRACT

ChatGPT has been deemed an influential tool and is widely used in various fields including education. With vast promising potential, ChatGPT has risen as a central focus of researchers nowadays. This study aims to explore the effectiveness of ChatGPT usage in preparing the students' assignment. This study mainly focusses on the educators' perspective. A qualitative research design was employed with a total of 66 students participating in this study. A total of eight meaningful themes emerged from the thematic analysis. In summary, findings show that ChatGPT has a strong association with improving students' assignment quality before and after. Nevertheless, there are two main issues on the use of ChatGPT for the assignment preparation that need to be further addressed. This study provides insights on the impact betterment of students' writing assignments with the optimization of ChatGPT usage. Thus, further study and evaluation of its impact are necessary to ensure the optimal incorporation of AI-based learning tools like ChatGPT continuously used in the learning process.

Keywords: ChatGPT; artificial intelligence; qualitative; educator perspective

1. INTRODUCTION

Artificial Intelligence (AI) is an intelligence machine that has the ability to think and act like the normal human being. One of the famous AI technologies is ChatGPT. ChatGPT has the ability of a natural language processing system which enable the human-like conversations [1]. ChatGPT can be used for various purpose and provide interactive as well as personalized experience to the users [1].

One of the famous uses of ChatGPT is in the education sector. The application of ChatGPT in academic has been drastically increase from 2020 to 2025 where most of the students and educators are utilizing the benefit of ChatGPT in the teaching and learning process. Study by George Pallivathukal [2] reported that 55.1 percent of the Malaysian higher education students employed ChatGPT in doing their assignments.

Students are prone to use ChatGPT in writing assignment because this technology is friendly and able to facilitate the learning process. The key feature of ChatGPT that able to have conversation that mimic the human interaction made the queries or commands (probe) easier for the students [2]. Students are able to get an instant answer or feedback for every probe whenever they use ChatGPT [1]. As a result, it helps the students to get the general idea on how to do their assignment.

Apart from that, the application of ChatGPT also not limited in education sector. Some people even use ChatGPT in helping them to make a daily life decision. For example, a father can upload a menu photo from a fast-food restaurant and ask the recommendation from ChatGPT which menu that should be order for him and his family within the budget. ChatGPT

will help to provide several menus that is suitable for the family within the provided budget. This technology definitely helps to improve individual decision-making process with the relevance justification and suggestion [3].

In this study, the researcher will discuss the effectiveness of ChatGPT application among the university students in doing their assignment. The ChatGPT effectiveness will be specifically measured based on the instructor (researcher) perspective. This study is based on the qualitative study that employ the content analysis to emerge the relevant themes that derived from the researcher reflection.

2. LITERATURE REVIEW

The integration of ChatGPT involving the university students is quite common nowadays. These students are mostly from the Generation Z that born within 2001 to 2020. They have been exposed with the technologies at the very young age which make them kin with all these technologies. Study by Sok and Heng [4] reported that there are five main advantages of the ChatGPT application in education specifically in term of the brainstorming idea, personal virtual tutor, provide the academic writing guideline or an essay guideline. Notwithstanding, ChatGPT also provide the benefit for the educator by becoming a medium of pedagogical practice as well as becoming a learning assessment platform for the students [4].

Study by Samala [5] reveal that students that use the ChatGPT in their education show the transformative potential as compared to the non-user. ChatGPT also help to stimulate the student's creativity and problem-solving skills which made this tool one of the meaningful learning aids. Similarly, study by Garcia-Penalvo [6] also reported that ChatGPT help to growth the critical thinking based on the suggested idea on each of the probe. Indirectly, this will help the students to be more critical in discussing their assignment.

Moreover, based on a qualitative study by Firat [7] highlighted that ChatGPT help to improve the student's engagement and enhance the learning experience. Student use ChatGPT as the learning assistant in brainstorming their idea and conducting early revision. As a result, the students seem to be more prepared during the lecture session. Students also reported to be more satisfied with their learning improvement when integrate ChatGPT especially in doing their assignment [7]. They believe that ChatGPT able to help them to prepare a quality and comprehensive assignment. Strzelecki [8] also reported that ChatGPT has significantly improve the university student's performance as well as their motivation in class.

Besides that, ChatGPT also help to facilitate the students in learning a new language skill [9]. They can enhance their language skill in a short period of time which indirectly improved their effectiveness and efficiency [9]. This shows how ChatGPT can help the students' overall learning process including acquiring a new set of skills [9]. The use of ChatGPT has been seen as one of the strategies that will change the education process nowadays through numerous benefits that can be offered to the students [10, 11].

Despite of all advantages, the use of ChatGPT in education also has some drawbacks that need to be address. One of the major drawbacks on the use of ChatGPT is in term of the misleading or unethical use of ChatGPT in preparing assignment [12]. Irresponsible students jeopardize the use of ChatGPT by copy and paste the all the suggested answer without paraphrase it. This causes the students taking for granted and misleadingly using this technology to do the assignment on their behalf.

Besides that, it is also important for both students and educators to have the proper training when using the ChatGPT [13]. To maximize the application of ChatGPT in education, the users should know the exact way to write the probe, so that they can get the correct response or answer from the ChatGPT. This training also important in order to ensure that the users are using this technology ethically without jeopardizing its benefit [14, 15].

In spite of the ChatGPT benefits, this technology still unable to provide a complex reasoning for every probe made by the users [13, 16]. ChatGPT will provide answer for every probe through variety of sources such as Wikipedia, book, scientific journals, website or news articles. Therefore, it is the responsibility of the users to browse through all these answers or response to evaluate whether it is a factual information from the credible sources or not. Students who took the opportunity of copy and paste the answer for their assignment will encounter high AI detection through the plagiarism detection tool like the Turnitin. As a result, these students will be penalized due to plagiarism issue.

Notwithstanding, it is proven that ChatGPT cannot completely replace the educator role in class [17, 18]. ChatGPT is a good teaching intervention and should be used wisely. Ipek et al. [19] and Rudolph et al. [20] highlighted that it is important for the educators to have the proficiency and receive a comprehensive training when integrating this technology in their teaching and learning process. Educators that are able to maximize the use of ChatGPT in class will be able to create an interactive and creative learning session. They can enjoy also the is limitless of knowledge and information in brainstorming the idea for their lecture [21].

3. METHODOLOGY

This study employed the participatory action research design where the researcher tries to make a comparison of the quality between two assignments that have been done in the class. Both assignments relate to students' reflections based on the several topics relating to the International Human Resource Management. A total of 66 students in a public university in Malaysia participates in this study.

For the first reflection, the researcher does not allow the students to use the ChatGPT to help them do their reflection. The students are required to do the reflection by themselves and searching information through the desktop study. The students are being given a period of one week to complete the reflection.

Next, after the completion of the first assignment. The researcher gives another reflection on other topic relating to the similar subject. This time, the researcher specifically allows the students to integrate the ChatGPT in brainstorming the idea as well as searching information for the reflection. Prior the use of ChatGPT, the researcher teaches the students on how to write a clear probe in order to help them to get a good answer or response from ChatGPT. Similarly, the students are given a week to complete the assignment.

Both of the assignments are being assessed using a specific rubric that is used in the university. The quality of both assignments is further compared by the researcher in order to identify the effectiveness of ChatGPT in helping the students to prepare their assignment. Furthermore, the researcher made her own reflection to measure the quality comparison of the assignments. Subsequently, the researcher analyses the reflection using the thematic analysis in order to emerge the relevant themes on the effectiveness of the ChatGPT in preparing the assignment.

4. RESULT AND DISCUSSION

There are several themes emerge from the researcher' reflection on the effectiveness of ChatGPT in helping the students to prepare the assignment. The themes and discussion of each theme is as below: -

i) Improve the assignment final outcome

Based on the observation and the evaluation of both of the students' assignments, it is clearly show that the second assignment that been assigned to the students show a better outcome as compare to the first assignment. This is mainly because the researcher specifically asks the students to use ChatGPT in preparing the assignment. The improvement of assignment outcome also can be seen where the students are able to write more reflection on the second industrial accident case as compare to the first reflection. Majority of the students are able to write additional one or two pages of reflection for the second case.

ii) Cultivate the student critical thinking

With the integration of ChatGPT, the students are able to write a more critical reflection where their discussion seems to be more thorough. In the first reflection, the students are just reflecting the industrial accident case on the surface. The student's analysis on the first case is not deep and they just reflecting based on what they seen from the video. However, in the second case the students are able to deepen their analysis and write a better reflection. The students also able to associate the occurrence of the case with the related accident causation theories.

iii) Well format report

The overall structure of the second reflection is much better when compare to the first reflection. The students are able to organize their writing and avoid repetition as well as any jumping of ideas. In the first reflection, some students seem to keep repeating the same point from one paragraph to another paragraph. Some of the students also did not make any conclusion on their first reflection which made the writing seem to be hanging. Nevertheless, the overall writing of second reflection show a better improvement where the students fulfill all the criteria that mainly discussed in the reflection and their writing seem to be more coherent.

iv) Enhance the student writing skill

With the use of ChatGPT, there is an enhancement on the overall students' writing skill. The second assignment mostly meet the rubric requirement and help the students to score a better mark as compare to the first assignment. In term of the mark's allocation, for first assignment, majority of the students get an average score. In comparison, almost all students get a higher score for the second assignment.

v) Minimize the grammatical error and better punctuation

One of the criteria that help the students to get a better score in the second assignment is because there is less grammatical error found in their writing. Students are mostly able to write the reflection using the correct grammar and a better word punctuation. In the first assignment, some of the students are mixing around the past tense and present tense words in their writing. In addition, some of the students also use unsuitable word in their writing which make the sentences not suitable for the academic writing.

vi) Complete the assignment in timely manner

With the help of ChatGPT in preparing the assignment, majority of the students are able to complete their assignment faster. Although the researcher provides the similar period of time which is a week to complete and submit the first and second assignments, but most of the students submit their second assignment earlier that the due date. This shows that through the use of ChatGPT, the students can expediate the completion of their assignment.

vii) High AI writing detection

The main issue that can be identified when the students integrate ChatGPT in their assignment preparation is the high AI writing detection. The students are required to submit their first and second assignment through the Turnitin checking in order to detect the similarity index as well as the AI writing detection. For the second assignment, some of the students' assignment submission recorded a high AI writing detection.

60 out of the 66 students recorded AI writing detection around 10 percent to 20 percent, 5 students recorded AI writing detection around 20 percent to 25 percent and one student recorded 100 percent of AI writing detection. When the researcher browses through the full Turnitin report on the student who score 100 percent AI writing detection, it shows the student just copy paste the exact sentence from the ChatGPT.

This shows that some students are taking the advantage of this technology and misleadingly using ChatGPT to do the assignment on their behalf. It is just like asking another person to do your own assignment. As a result, this will further cause the ethical issue because students should not directly copy and paste the ChatGPT answer or response. They can only use the answer or response to generate idea for their assignment.

viii) Proper training to use ChatGPT

Another issue that can be identified when evaluating the students' second assignment is in term of the lack of training provided to the students in helping them to properly use the ChatGPT. Although the researcher has provided the students with the initial training on how to write the proper instruction or question (probe) in the ChatGPT, but it seems that the training is not enough to help the students to maximize the use of ChatGPT in preparing their assignment.

Some students fail to provide the in-text citation and references that been use in the assignment. The researcher further investigates why some of these students did not provide the in-text citation and references, and it seems that the ChatGPT did not provide the reference from them. Thus, it can be concluded that, some of the probe that been used by the students are not clear which cause them to get information from non-academic sources like Wikipedia, blog or from any website. These references are not suitable for the academic writing and the students should refer to the scientific journal.

To further address this issue, the researcher should conduct more training session to the students especially on writing the clear and comprehensive probe when using the ChatGPT. When the students use the correct and clear probe, they can get the information needed from the reliable sources like the scientific journal together with the in-text citation and references written in the specific reference format.

Apart from that, the researcher also needs to conduct another training that focusing on the correct way of brainstorming idea from the ChatGPT. This is important in order to avoid the students from plagiarism or copy and paste the ChatGPT answer or response. Plagiarism is one of the intolerable actions especially in academic and students are accountable for the disciplinary action.

Table 1 shows the summary of the thematic analysis that been derived based on the instructor's reflection through the comparison of the quality between the first and second assignment.

Table 1. Summary of the thematic analysis on the instructor's reflection

Instructor's Reflection on the effectiveness of ChatGPT in preparing assignment: -
i) Improve the assignment final outcome
ii) Cultivate the student critical thinking
iii) Well format report
iv) Enhance the student writing skill
v) Minimize the grammatical error and better punctuation
vi) Complete the assignment in timely manner
vii) High AI writing detection
viii) Proper training to use ChatGPT

5. CONCLUSION

The study offers insight from educator perspectives on ChatGPT's effectiveness in assisting students' assignments. Findings show a strong association between ChatGPT usage and its promising potential. This paper also presents evidence of enhancement brought by ChatGPT as it directly improves students' assignment quality before and after. No doubt that the existence of ChatGPT remarkably transformed the entire learning process to be more efficient and effective.

All the themes emerged from the researcher reflection seems to be aligned with the benefit and drawbacks discussed in the literature review. These drawbacks need to be address in order to ensure that the students did not misleadingly use the technology to replace their responsibility to complete each of the assignment themselves. ChatGPT is a great learning intervention that can facilitate the student's life especially in doing their assignment. But of course, students must use this technology wisely and in the ethical way.

Moreover, despite the immense potential of having Chat GPT as a supporting writing tool, the entire learning process still relies on the educator's intervention, guidance, students' efforts and commitment. Simply relying on technology without human association would likely deter its full potential. Thus, balancing both elements in future would largely help the learning process to be more comprehensive.

In summary, there is several limitations existed in this study. Firstly, this study mainly focusses on the measuring the ChatGPT effectiveness based on the instructor perspective. Thus, the findings may not be widely applicable to the other perspective. Secondly, this study solely focusses on the qualitative method and all the themes emerged are analyzed based on the thematic analysis. Next, this study uses a small sample of 66 students from only one class and the assignment is focusing on the students' reflection.

In order to address these limitations, it is recommended for the future study widen the scope of study and measure the effectiveness of ChatGPT in preparing the assignment from the students' perspective. This will help the future researcher to get a holistic view on the effectiveness of ChatGPT in preparing assignment. Besides that, it is also recommended for the future researcher to use the quantitative method or conducting a mixed method study through the combination of quantitative and qualitative method. Quantitative method provides the statistical evidence that made the analysis justifiable. By combining both the quantitative and qualitative method, the future researcher will be able to get a comprehensive finding.

Finally, it is suggested for the future researcher to undertake the study using a bigger sample by involving all students in the university rather than testing the effectiveness of ChatGPT toward one set of samples. Through a larger sample, future researcher able to make a conclusive summary and get a better insight over the effectiveness of ChatGPT because the study will include students from various courses and classes.

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