

University Student Readiness and Academic Integrity in Using ChatGPT and AI Tools for Assessments

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Biography of Contributors

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Dr. Bambang Sumintono is an expert on educational policy and educational management. He graduated from the Master of Educational Administration program, Flinders University, Australia, supported by the Australian Development Scholarship in 2001. He obtained a Ph.D. in Educational Policy from Victoria University of Wellington, New Zealand, with a scholarship from New Zealand Agency for International Development in 2007. Previously he worked as a lecturer at Universiti Teknologi Malaysia and Universiti Malaya in Malaysia. He wrote two textbooks about the application of Rasch modelling for social sciences research in the Indonesian language. Dr. Sumintono is also an editorial board member of the Educational Assessment, Evaluation, and Accountability journal; and Pacific Rims Objective Measurement Society (PROMS) board member.

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Abstract

This chapter explores the utilisation of ChatGPT for academic support in higher education, concentrating on students' readiness, perception of its usefulness, and understanding of academic integrity issues. A quantitative approach with a non-experimental design was employed. The study involved 374 university students as participants, with data cleaning and validation carried out using WINSTEPS software and further analysis was conducted using Rasch Rating Scale Model. The key findings highlight varied levels of student readiness and awareness concerning the use of ChatGPT and adherence to academic integrity. The study points to the urgent need for universities to provide more explicit guidelines on using artificial intelligence (AI) tools within academic contexts. The results reveal that while students see the potential benefits of ChatGPT in aiding their studies, many lack full preparedness for its incorporation into their academic routines. The analysis of variance indicated significant differences in the readiness and perceived usefulness of ChatGPT among students based on the frequency of its usage. However, there were no significant differences in terms of academic integrity across different demographic groups. This research contributes to the understanding of how students perceive and engage with AI tools in higher education. It also provides insights on the future of digital assessments in higher education particularly how AI tools like ChatGPT might reshape assessment methods particularly in upholding academic integrity and honesty.

Keywords: ChatGPT, academic integrity, academic help-seeking, readiness, assessments

INTRODUCTION

The release of advanced language models like ChatGPT represents a disruptive force within higher education. With its impressive capabilities in text generation, knowledge retrieval, and dialogue, ChatGPT presents both vast opportunities and complex challenges (Adams et al., 2023; Strzelecki, 2023). Evidently, its introduction compels a recalibration of pedagogical approaches and the need for comprehensive new policies within academic institutions. Many studies have highlighted ChatGPT's multifaceted functionality that offers potential avenues for personalised learning, automated formative feedback, and the streamlining of administrative tasks (Adeshola & Adepoju, 2023; Rawas, 2023). However, it also raises questions about the ethics of artificial intelligence (AI) usage in education. Some of the concerns are related to upholding academic integrity (Perkins, 2023), preventing the misuse of ChatGPT as a replacement for critical thinking (Wach et al., 2023; Vázquez-Cano et al., 2023), and safeguarding intellectual property (Lund & Wang, 2023). These concerns are not unwarranted, especially when students can access ChatGPT freely and the potential for misuse to undermine academic integrity remains high.

In light of these considerations, the role of assessments in higher education is undergoing significant scrutiny and transformation. Traditional forms of assessment, such as essays and standardised tests, are increasingly viewed as vulnerable to the sophisticated capabilities of AI tools like ChatGPT (Grosbeck et al., 2023; Zirar, 2023). This prompted many educators and researchers to devise more innovative and authentic assessment methods that can effectively measure student learning. As Rudolph et al. (2023) pointed out, although ChatGPT can sometimes “hallucinate and spout nonsense” (p. 356), there is indeed a necessity for academic institutions to move away from traditional assessment practices. Educators are exploring alternative formats like project-based assessments, oral presentations, and peer-reviewed assignments, which are currently more resistant to AI-generated content (Farazouli et al., 2023; Thanh et al., 2023). However, this transition also demands rigorous validation of

new assessment methods to ensure they maintain reliability, and alignment with learning objectives, thus preserving the integrity of higher education credentials (Asimov & Malin, 2020). Hence, instead of focusing on educators' perspectives, there is also an opportunity to examine the students' viewpoints, particularly in terms of educating them on how to use tools such as ChatGPT as an academic help-seeking tool while fostering an awareness of academic integrity.

In general, academic help-seeking is a process that involves actively seeking information, resources, or support to address learning challenges or enhance understanding of academic content (Davison et al., 2023). In this context, academic help-seeking is emerging as a pivotal component of the educational ecosystem, as the power of AI tools can be harnessed for constructive purposes (Ajoulouni et al., 2023; Tlili et al., 2023). Students, now more than ever, require guidance on how to effectively leverage these technologies to complement their learning journey rather than being prohibited from using them (Wu & Yu, 2024). The use of AI tools such as ChatGPT can significantly lower the barriers to academic help-seeking by providing a non-judgmental and accessible medium for students while enhancing their self-regulated learning experience (Akiba & Fraboni, 2023; Wu et al., 2024).

Previous studies have primarily focused on the potential and challenges of using AI in education but have often overlooked the practical aspects of how students can effectively use these tools for learning enhancement. The existing literature reveals a significant gap in understanding their specific preferences and challenges in using these technologies for academic help-seeking. Furthermore, factors such as readiness (Uren & Edwards, 2023) and perceived usefulness (Kasneji et al., 2023) can shape how university students approach AI tools for assistance. Therefore, examining students' preparedness and their views on ChatGPT's benefits is crucial for fostering sustained help-seeking actions.

This chapter presents the outcome of a study that aimed to explore the use of ChatGPT for academic help-seeking within higher education, with a particular focus on the different perceptions of students. In particular, this study examined students' readiness to use ChatGPT, their perceived usefulness and their awareness of academic integrity in the usage of ChatGPT for academic purposes. The following research questions guided the study:

- i. What is the readiness and perceived usefulness of ChatGPT among students for academic purposes?
- ii. What is the level of students' awareness regarding academic integrity when using ChatGPT for academic purposes?

LITERATURE REVIEW

Academic help-seeking

University students' tendencies to seek academic help are shaped by various factors and reflect a complex phenomenon (Fan & Lin, 2023; Payne et al., 2021). Li et al. (2023) stated that help-seeking behaviour generally means how individuals proactively seek support, guidance, or information to overcome obstacles or challenges in various contexts. Within an academic setting, it denotes the deliberate efforts by students to find help or clarification when confronted with educational difficulties or doubts (Payne et al., 2021). This study positions such behaviour within the framework of self-regulated learning as proposed by Wu et al. (2024). It is viewed as a strategy employed by students in response to the challenges they face learning. Engaging in help-seeking signifies students' metacognitive recognition of their own limits and an initiative to surpass them (Anthonysamy et al., 2020). This is in line with self-regulated learning principles that advocate for setting objectives, self-assessment, and adaptive strategies (Carter et al., 2020; Puustinen & Pulkkinen, 2001). Thus, academic help-seeking is

instrumental in fostering self-directed and resilient learning behaviours, potentially enhancing students' academic outcomes.

A systematic review conducted by Mishra (2020) highlights that a student's academic success is closely linked to their social connections, underlining the significant influence of peer interactions in university settings. This suggests that students who actively engage with their peers for academic assistance often achieve better results. However, the dependency on peers for academic support might lead to challenges, particularly when peers are unavailable or lack the necessary knowledge. This gap highlights the importance of digital resources and online platforms in facilitating academic assistance (Borup et al., 2020; Chyr et al., 2017; Torun, 2020). For instance, Torun (2020) found that frequent interaction via an online learning platform is a good predictor of academic success, especially for students struggling academically. Mubarak et al. (2022) reiterated the same trend by indicating that frequent engagement with online materials can encourage students to seek help more proactively while reducing their probability of dropping out.

Furthermore, the integration of AI in educational settings introduces virtual assistants or chatbots as an innovative solution for real-time academic support (Chen et al., 2023; Chuah & Kabilan, 2021). These AI-powered chatbots offer instant access to information on a wide range of academic-related topics, thereby enhancing the help-seeking process (Ali et al., 2023). The effectiveness of such technologies, including live chat systems, in fostering self-regulated learning behaviours, was also confirmed by Broadbent and Lodge (2021) in their comparison of online and blended learning scenarios. In relation to the current advancement in generative AI, ChatGPT stands out as another example of how chatbot technology is being adopted within educational contexts to support student learning and inquiry.

ChatGPT in Higher Education

ChatGPT, a product of OpenAI, is one of the leading generative AI tools that has taken the higher education sector by storm within a short period of time. Its “invasion” into higher education after the COVID-19 pandemic is being met with a mix of anticipation and apprehension (Adiguzel et al., 2023; Kasneci et al., 2023; Lund & Wang, 2023). This chatbot harnesses machine learning to deliver responses that closely mimic human conversation, offering insightful solutions to a broad spectrum of questions (OpenAI, 2022). Since its launch in November 2022, ChatGPT has quickly drawn interest from educational leaders, teachers, and students, especially for its ability to undertake a variety of academic tasks, such as composing essays and tackling intricate questions across numerous disciplines within moments (Adeshola & Adepoju, 2023; Lo, 2023; Sok & Heng, 2023). The growing corpus of research on ChatGPT's impact on education is increasingly scrutinising its integration into student learning methodologies, its effectiveness in enhancing academic performance, and the ethical considerations it raises.

For instance, Rawas (2023) highlighted how proper integration of ChatGPT can encourage lifelong learning behaviour among learners as the AI tool is capable of personalising feedback, which is pitched according to the learner's level. Kasneci et al. (2023) examined ChatGPT's potential to enrich educational experiences by tailoring learning to the unique needs and preferences of each student. Dwivedi et al. (2023) emphasised ChatGPT's role as a supplementary resource for educators in their pedagogical and research endeavours. Nonetheless, these advancements come with challenges that necessitate careful attention, particularly the issue of biases that might be embedded within the AI system.

While the educational applications of ChatGPT have been widely explored, research specifically addressing its effects on student help-seeking behaviours remains scarce. Zhang (2023) is one notable exception, having examined the influence of ChatGPT on students'

decision-making in a lab setting where they tackled multiple-choice questions across 25 subjects with the bot's assistance. The findings suggested that students were more inclined to consider the chatbot's suggestions when they were less familiar with the subject matter, had previous positive experiences with ChatGPT, or had received reliable advice from it before. Furthermore, Olga et al. (2023) identified ChatGPT's potential in offering automated assignment feedback, serving as a virtual tutor for inquiries, and crafting illustrative content for learning tasks. However, they also warned of the possibility that ChatGPT's inherent limitations and biases could lead students astray, questioning its dependability as a resource for academic assistance.

Assessment and Academic Integrity in the AI Era

Most existing research has centred on how ChatGPT affects educational outcomes without examining its impact on how students seek help academically, particularly from the lens of assessments and academic integrity. In the context of higher education, the very essence of academic integrity involves the commitment to honesty, trust, fairness, and accountability in all scholarly activities (Boehm et al., 2009). However, the ease with which ChatGPT can generate essays, reports, and answer complex questions poses a challenge to maintaining these core values (Cotton et al., 2023; Rudolph et al., 2023). Students might be tempted to submit AI-generated work as their own, bypassing the critical thinking and learning process, which is integral to their academic and personal growth. This not only undermines the value of their education but also jeopardises the trust educators place in student work.

However, Gamage et al. (2023) stipulated that preventing students from using ChatGPT and other similar generative AI tools may be counterproductive. In fact, the sudden rise of AI tools provides more opportunities for academics to focus on assessing higher-order thinking skills (Gamage et al., 2023, p. 1). Cotton et al. (2023) echoed the same view by highlighting the need to further educate students on academic integrity and not be restricted to plagiarism per se. They also suggested ways how assessments can be redesigned by prioritising the process rather than the final output (Cotton et al., 2023). By integrating AI tools into educational practices, educators can not only foster an environment that encourages the development of critical and analytical skills but also promote a deeper understanding of ethical considerations in the AI era (Farazouli et al., 2023).

The use of ChatGPT and similar AI tools necessitates a re-evaluation of how academic integrity policies are framed and enforced. Traditional notions of plagiarism and academic misconduct may not fully encompass the current state of AI-assisted work (Naidu & Sevnanarayan, 2023). It requires educators and policymakers to develop new guidelines that recognise the role of AI in the learning process while upholding academic standards. This includes fostering an environment where students are encouraged to use these tools ethically as aids in the learning process. Educators must also equip students with the skills to critically evaluate AI-generated content, ensuring they can distinguish between legitimate use and academic dishonesty (Farazouli et al., 2023). Considering these viewpoints, it is beneficial to investigate students' views on ChatGPT in terms of their readiness and perceived usefulness while uncovering their understanding of academic integrity.

METHODOLOGY

This study employed a quantitative methodology with a non-experimental design to explore academic help-seeking behaviours among higher education students in relation to the use of ChatGPT, treating it as a latent trait (Thompson, & Panacek, 2007). Specifically, the researchers utilised a cross-sectional approach, an online survey was disseminated through an electronic platform in the middle of the year 2023, targeting undergraduate students at a public

university in Malaysia, namely Universiti Malaysia Sarawak, using non-probability sampling techniques. This method was selected for its effectiveness in highlighting specific areas of interest within a targeted group (Etikan et al., 2016). The recruitment of participants was facilitated via email and social media, and they were provided with a link to access the survey. To ensure ethical standards, the introductory section of the online questionnaire highlighted the anonymity and voluntary nature of participation, clearly stating that completion of the survey implied consent to participate and for the responses to be used in the study's publications (Martin & Marker, 2007).

Sample

There were 374 students who participated in the study. The first stage of analysis was conducting data cleaning and validation using WINSTEPS version 4.4.7, a Rasch measurement model software, to detect outliers (there were 12 responses with extreme maximum and minimum values were excluded), and misfit responses (38 responses were excluded for having an Outfit MNSQ index larger than 2.0) (Andrich et al., 2019; Bond & Fox, 2015; Widhiarso et al., 2016). Finally, there were 324 responses that were analysed further in this study, which showed adequate data stability.

The respondents' demographic profile is presented in Table 1. The sample of this study was nearly equal between genders, although the number of female students were slightly higher (55%). The majority of the study's participants were aged 20-29 (86%), reflecting its undergraduate student base. Notably, the largest group (35%) used ChatGPT less than once a week, with decreasing frequencies for more frequent usage: 32% more than once a week, 22% once a week, and 11% daily. This indicates a general awareness and varied usage patterns of ChatGPT among the students involved.

Table 1. Demographic Data of Respondents (N = 324)

	Demographic	Frequency (n)	Percentage (%)
Gender	Male	145	45
	Female	179	55
Age	Under 20 years	41	13
	20-29 years	280	86
	More than 29 years	3	1
Use of ChatGPT	Less than once a week	114	35
	Once a week	73	22
	More than once a week	103	32
	Every day	34	11

Instrumentation

The research employed a questionnaire to assess student perceptions of self-regulated academic help-seeking via ChatGPT in a higher education setting. The survey was structured around three main areas: readiness to use ChatGPT (Section A, 10 items), its perceived usefulness (Section B, 10 items), and considerations of academic integrity related to ChatGPT use (Section C, 12 items). These items were adopted from the validated instrument obtained from Adams et al. (2023). Designed with closed-ended questions, it aimed to gather specific data using a four-point Likert scale (1=strongly disagree, 2=disagree, 3=agree, and 4=strongly agree) for responses. Demographic details (Section D) such as gender, age, and ChatGPT usage frequency as shown in Table 1 were also collected for analysis.

Measurement Model and Data Analysis

In this study, Likert scale data, which is of an ordinal nature and intended for counting rather than measuring, was collected. To analyse this data, the study employed the Rasch Rating Scale Model (RSM). This approach begins by counting the raw data as frequencies, then examining the odds and probability for each participant and question. These probabilities are then transformed into equal-interval data through a nonlinear function (Boone & Staver, 2020; Sumintono & Widhiarso, 2014). A logarithmic function is applied to convert these odds into measurements on a consistent equal-interval scale, known as logits (an abbreviation for logarithm odds unit). Following this, a conjoint-measurement process calibrates these logits to ascertain the relationship between the difficulty level of the items and the abilities of the participants. The data was then inputted into WINSTEPS version 4.4.7, a software specifically designed for Rasch analysis.

The RSM is particularly suitable for measuring latent or hidden traits in assessing human opinions, perceptions, and attitudes (Bond & Fox, 2015; Engelhard, 2013). With the Rasch analysis, the results can explain item difficulty levels with accurate and precise measurement (item calibration), detecting item fit as compared to an ideal model, as well as measuring the respondent perception (Lee et al., 2021; Rusland et al., 2020). Furthermore, respondent analysis using this measurement model provides more accurate results that will be more helpful in obtaining the results of inferential statistics such as Analysis of Variance (ANOVA).

The RSM approach was utilised to analyse 324 respondents and 32 questionnaire items about self-regulated academic help-seeking through ChatGPT, employing a two-dimensional model for assessing both the items and the respondents (person). The item logit was centred at zero, which allows the person logit to 'float', indicating respondents' level of latent trait. As shown in Table 2, the mean measure (logit) of the items is 0.00 logit, and the standard deviation is considered good (0.70), suggesting that the dispersion of measures was wide across the logit scale in terms of item difficulty level.

Table 2. Summary of Person and Item Statistics

	Person	Item
N	324	32
Measures		
<i>Mean</i>	1.81	0.00
<i>Standard Deviation, SD</i>	1.49	0.70
<i>Standard Error, SE</i>	0.08	0.12
Outfit Mean Square		
<i>Mean</i>	0.99	0.99
<i>SE</i>	0.04	0.05
Separation	3.29	5.73
Reliability	0.92	0.97
Cronbach's Alpha	0.93	
Raw variance	37.0%	

On the respondent side, the logit mean was 1.81 logit, showing that all respondents tend to perceive themselves as having a higher level of agreement of self-regulated academics, with

a standard deviation of 1.49, indicating a very wide dispersion level of agreement among the respondents. The average outfit mean-square statistics is near the expected value of 1, both for item and person, and raw variance is higher than 20%, showing a uniform fit to the model (Engelhard, 2013). The separation index (more than three), and reliability (more than 0.9) of item and person statistics suggest very good reliability (Kök & Fisher, 2007).

RESULTS

Item Difficulty Level

Table 3 categorises the questionnaire items based on their difficulty level, represented by the logit value of each item (LVI). This value helps determine how easily respondents agree with each item. In this study, a higher LVI for an item suggests that more respondents selected "strongly disagree" (resulting in a lower score), and the opposite is true for items with lower LVIs. The items were classified into four difficulty levels by dividing the distribution of the item logit scores based on the mean (0.00 logit) and standard deviation value (0.70) as shown in Table 2. These two values were then used for a simple descriptive statistics tool to create the grouping of item difficulty. This method is useful to identify which item belongs to a certain difficulty level. There were 5 items (16%) in the category of *very difficult to agree* by respondents ($LVI > +0.70$ logit); in second was the category of *difficult to agree* by respondents ($+0.70 \geq LVI \geq 0.00$), for which there were 9 items (28%); in the next category, which is *easy to agree* statement by respondents ($0.00 \geq LVI \geq -0.70$), there were 12 items (37%); and lastly, six items (19%) fell into the category *very easy to agree* by the respondents ($LVI < -0.70$ logit).

Table 3. Self-regulated academic help-seeking used ChatGPT Item Calibration (N = 324)

Construct/Dimension	<i>Difficulty Level</i>			
	<i>Very difficult to agree</i>	<i>Difficult to agree</i>	<i>Easy to agree</i>	<i>Very easy to agree</i>
Readiness to use ChatGPT	A6, A7 A8, A2	A9, A1 A3	A5	A4, A10
Perceived usefulness of ChatGPT	-	B3, B9, B6, B5	B7, B8 B4, B1, B10	B2
Academic integrity and ChatGPT	C2	C3, C4	C9, C1, C5 C7, C12, C6	C11, C10, C8

As shown in Table 3, there are clearly two groups of construct difficulty with regard to students' responses to items. Firstly, for the construct of "readiness to use ChatGPT" more items were considered by respondents as difficult to agree (7 out of 10 items), this means that many students in the study were not fully ready with the use of the ChatGPT. The highest LVI, namely item A6 (*I feel that my university provides adequate guidelines for using ChatGPT and other AI tools*) shows that the university had not informed students about the policy pertaining to ChatGPT usage, while item A7 and A8 were asking about the involvement of ChatGPT in student assignments. Item A2 was about the necessary skills to use ChatGPT and other AI tools. This shows that universities, based on students' perception, were not swift enough to catch up with the development of AI tools in higher education. Within this construct, three items elicited agreement from students with relative ease, which indicates their

acknowledgment of ChatGPT's educational benefits (A4), the availability of robust internet connectivity (A5), and their awareness about the implications of disclosing sensitive data (A10).

For the other two constructs, more items were perceived as “easy to agree” by the respondents, which are in perceived usefulness of ChatGPT (6 out of 10 items) and academic integrity and ChatGPT (9 out of 12 items). This contrasts sharply with the first construct, indicating that students are well aware of both the benefits of AI applications in their academic work and the ethical considerations involved. One item that was found to be very difficult to agree on, was C2 (*I understand the university's guidelines on using ChatGPT*). This finding suggests that institutions may need to provide clearer guidance on this matter. Empirically, the students agreed that AI tools help their learning tasks (B2, *ChatGPT will make it easier for me to complete my tasks or assignments*). It can also reduce stress (Item B8), and provide faster service to locate sources (Item B10). Interestingly, respondents were fully aware of academic integrity issue in relation to the use of ChatGPT and other AI tools. Three items that were categorised as very easy to agree informed us that they want university to have clear guideline (Item C8), the use of AI tools follow university guidelines (C10) and they are also aware of verifying sources they obtained from the AI tools (C11). The results of this study concerning the categorisation of item difficulty demonstrate that students are highly aware of AI applications, recognising their usefulness while also being mindful of the ethical considerations these technologies pose to academic integrity.

Person level of Self-regulated academic

The Person Logit Value (PLV) is determined by analysing respondents’ answers across all survey items. A response of “strongly agree”, scored as 4, results in a significantly positive PLV, indicating a high level of agreement with the statements presented. Conversely, a predominant choice of “strongly disagree” leads to a negative PLV, suggesting a low level of agreement or difficulty in endorsing the statements. Table 2 uses the mean and standard deviation of the PLV to classify student respondents into four categories of engagement in self-regulated academic help-seeking through ChatGPT, ranging from very high to low levels. Table 4 uses the demographic information of the respondents along with their PLV to detail the perception level of each group.

There were 61 out of 145 male students (42%) in the group with a very high and high perception of self-regulated academic help-seeking using ChatGPT, as compared to 59 out of 179 female students (33%). In the moderate level group in this study, it consists of 69 (47%) male and 104 (58%) female. There were 15 males (10%) and 16 females (9%) in the group of low perception. This pattern suggests that a larger proportion of male students held a high perception of using ChatGPT for academic help-seeking, while a majority of female students were categorised at a moderate perception level. The findings indicate a noticeable difference in the adoption and perception of AI tools like ChatGPT between male and female students, with males showing a relatively higher inclination.

Table 4. Logit value person (LVP) analysis (N =324)

Demographic	Very High <i>LVP > +3.3</i>	High <i>+3.3 ≥ LVP ≥ +1.81</i>	Moderate <i>+1.81 ≥ LVP ≥ +0.32</i>	Low <i>LVP ≤ +0.32</i>
Gender				
Male	25	36	69	15
Female	27	32	104	16

Age				
Under 20 years	8	9	20	4
20-29 years	44	7	152	27
More than 29 years	-	2	1	-
Use of ChatGPT				
Less than once a week	11	18	67	18
Once a week	13	13	42	6
More than once a week	23	25	49	5
Every day	5	12	15	2

Regarding the age of the respondents, the majority were classified as the moderate perception level. Specifically, 50% of students under 20 years old (20 out of 41) and 54% of those in the 20-29 age range (152 out of 280) fell into this category. Within the 20-29 age group, 16% (44 students) were identified as having a very high level of perception. This pattern was also observed in the demographic data related to the frequency of ChatGPT usage, with the majority of users across all frequencies falling into the moderate level. However, a distinct trend emerged among students who use ChatGPT more than once a week; they were predominantly represented in the very high (22%, 23 out of 103) and high (24%, 25 out of 103) perception levels. This suggests that frequent users of AI tools, such as ChatGPT, demonstrate more effective and positive engagement compared to less frequent users.

Comparing Mean Differences

Table 5 presents the descriptive statistics and one-way ANOVA results for multiple comparisons of the means of the three demographic groups of research respondents along the three constructs. The mean logit scores for each dimension of self-regulated academic help seeking reveal that students perceive the usefulness of ChatGPT as a significant benefit, followed by considerations of academic integrity when using ChatGPT, and their readiness to use ChatGPT. All mean logit values across these dimensions exceeded 0.0, indicating a general tendency among students to engage with these aspects frequently. The standard deviation values for each dimension were rather large, which demonstrates a broad range of perceptions among the students.

Table 5. Descriptive statistics and One-way ANOVA of self-regulated academic help-seeking via ChatGPT Item Calibration (N = 324)

Demographic	<i>Readiness to use ChatGPT</i>	<i>Perceived usefulness of ChatGPT</i>	<i>Academic integrity and ChatGPT</i>
Mean (logit)	1.608	2.635	2.511
Std Dev	1.693	2.539	2.085
Gender	3.014	1.599	0.249
Age	0.028	0.633	0.545
Use of ChatGPT	8.208*	6.870*	1.002

*Significant at 0.01 level.

The ANOVA findings revealed significant differences within the ChatGPT usage groups for two specific dimensions: readiness to use ChatGPT and perceived usefulness of ChatGPT. Students who frequently used ChatGPT exhibited significantly different responses as compared to those who used it less often, indicating that regular interaction with the AI tool enhanced their readiness and perception of its benefits (as illustrated in Figure 1). Interestingly, the dimension of academic integrity showed little variation, suggesting a general agreement among students regardless of their usage frequency. Besides that, the analysis showed no significant differences in the perceptions across age and gender demographics for any of the three dimensions, indicating a uniform perception among all respondents.

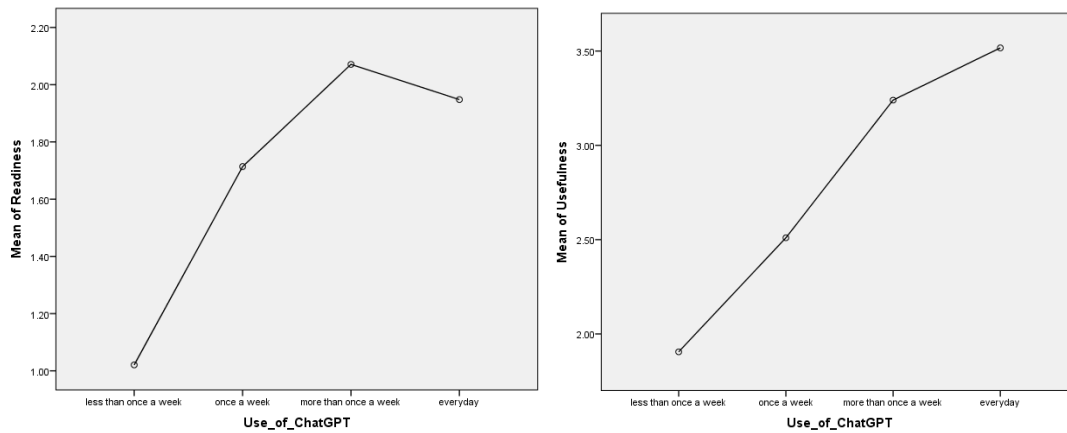


Figure 1. Mean plots of use of ChatGPT for readiness and perceived usefulness of ChatGPT constructs

DISCUSSION

This study explored the readiness and perceived value of ChatGPT among university students for academic uses particularly in the aspect of assessments, along with its implications on their academic help-seeking behaviours using Rasch Rating Scale Model approach. The findings suggest that students are equipped with the necessary skills, willingness, and technological means to utilise ChatGPT, with a majority of them recognising its usefulness to enhance their learning. This aligns with the work of Kasneci et al. (2023), Mijwil and Aljanabi (2023), and Kuhail et al. (2023), who noted ChatGPT's ability to improve and personalise education for students. In addition, the students expressed a readiness to incorporate ChatGPT into their study routines, particularly valuing its capability to provide clear and precise explanations (Foroughi et al., 2023), and its efficiency in breaking down complex ideas into simpler terms (Olga et al., 2023). Interestingly, the ANOVA results from this study indicated significant differences in readiness to use ChatGPT and its perceived usefulness with regards to frequency of usage. As highlighted by Cotton et al. (2023), students who are trained to use the AI tool properly would be more prepared to benefit from it in their learning process.

The findings of this study also revealed students' positive attitude towards ChatGPT's role in aiding with assignments and sourcing educational materials, echoing the findings of Chen et al. (2023) and Gupta et al. (2019), who observed its widespread use among university students for academic tasks. Moreover, students appreciated ChatGPT's ability to reduce stress and help understand intricate concepts, as found by Crawford et al. (2023) and Smith et al. (2023). Nevertheless, there was a consensus on the importance of balancing AI support with the development of personal critical thinking, problem-solving, and creative skills (Huang,

2021). This balance is essential to ensure that while technology like ChatGPT can provide immediate answers and aid in learning, it does not substitute the need for students to engage deeply with various learning materials. The study further reiterates the potential of AI in education (Wach et al., 2023; Vázquez-Cano et al., 2023), not only as a tool for immediate academic assistance but also as a catalyst for rethinking traditional learning paradigms.

In addition to the findings on readiness and perceived usefulness, this study also emphasised on the crucial aspect of academic integrity. The findings indicated that regardless of age, gender and frequency of ChatGPT usage, students were all aware of the academic integrity dimension. Unlike the findings gathered by Arohina-Naumeca et al. (2020) in Latvia and Ampuni et al. (2020) in Indonesia, the majority of students in this study demonstrated a responsible approach in terms of the use of ChatGPT as a supplementary resource. The difference in findings across different geographical locations suggests that cultural, educational, and policy differences play a significant role in shaping students' attitudes and behaviours towards academic integrity when using tools like ChatGPT (Cotton et al., 2023). The responsible approach observed in this study could be attributed to the increased discussion around the ethical implications of using AI technologies in academia. Social media, being a powerful tool for disseminating information and fostering community dialogues, might have played a crucial role in this context. Nevertheless, students in this study still believed that the university should provide a clear provision for the use of ChatGPT and other AI tools, particularly in terms of assessments. Educational institutions and instructors are encouraged to provide clear guidelines on the acceptable use of AI tools in coursework and research, highlighting the importance of original thought and the ethical integration of AI-generated content into academic work (Adams et al., 2023). This includes fostering an understanding of how to critically evaluate AI-assisted work, aligning with the principles of academic integrity. More importantly, providing AI literacy programmes can equip students with the skills to discern when and how to use AI tools ethically while promoting a culture of honesty and integrity in their academic pursuits.

Furthermore, with the rise of digital platforms for evaluations, concerns regarding academic integrity have become more pronounced. The potential for students to use AI-generated responses in digital exams and assignments poses a significant challenge to maintaining the integrity of academic work (Minn, 2022). It is also worth noting that the implications of academic integrity on digital assessments extend to the trustworthiness of educational credentials. As digital assessments become more prevalent, the authenticity of academic achievements will be increasingly scrutinized. This calls for a balanced approach where technology is used to enhance learning and assessment processes, while also implementing strict measures to prevent academic dishonesty (Chen et al., 2023).

This study, however, is not without its limitations. Its findings are not universally applicable, as the study was confined to a single public university in Malaysia. Besides that, the small sample size further restricts the generalisability of the results. It also relies only on a questionnaire as the main data collection instrument. Future research can therefore expand to include larger sample size and possibly incorporate insights from educators to broaden the understanding of AI's role in academic settings. Nonetheless, this exploratory study has paved the way for more extensive investigations that could further uncover AI's role in enhancing educational outcomes. It has also highlighted the call for developing assessment frameworks that are adaptable to the AI age, capable of evaluating not just rote memorization or basic comprehension, but also the depth of understanding, originality, and the ability to apply knowledge in authentic situations.

Conclusion

This research aimed to explore how ready university students are to adopt ChatGPT for their studies particularly in completing their assessments.. The findings highlight two key areas for practical implications. Firstly, while students were keen on using ChatGPT for their academic tasks, there was a significant lack of detailed guidance on how to utilise such tools for completing assessments.. This gap signifies an urgent need for educational institutions to develop clear policies and frameworks to guide the use of AI not only in terms of assessments but also in their learning as a whole..

Secondly, concerns emerged regarding the potential overdependence on AI tools such as ChatGPT, which might adversely affect essential skills like critical thinking and creativity. Addressing these concerns requires a thoughtful approach from educators and institutions to integrating AI technologies into educational methodologies and assessments so that they complement rather than compromise the development of these vital skills. As raised by Gamage et al. (2023), incorporating AI tools into educational frameworks also necessitates innovative assessment strategies that accurately measure students' ability to apply critical thinking, creativity, and problem-solving skills in real-world scenarios. As more assessments are designed in digital format, the tendency to rely solely on AI for solutions can be mitigated by creating assignments and tests that encourage deep understanding and the application of knowledge rather than simple recall of facts.

The readiness and engagement of students with ChatGPT and similar AI technologies are significantly influenced by institutional policies and the teaching strategies employed by educators (Adams et al., 2022). As the adoption of AI in education accelerates (Ifenthaler et al., 2023), it is crucial to initiate training and awareness programmes to smooth the transition for both educators and students. Such initiatives should emphasise the importance of maintaining the originality of academic work for effective assessment and learning outcomes, while also guiding students through the ethical considerations of utilising AI in their studies.

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