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**Exploring Students' Perceptions and Higher Education Institutions' Attitudes  
towards ChatGPT's Influence on Academic Integrity: A Mixed-Methods Study**

**1.Introduction**

The fast development of artificial intelligence (AI) and large language model (LLM) has grabbed great attention of people in various fields all over the world. The most powerful model, ChatGPT, an AI-powered chatbot developed by OpenAI, has become the center of the discussion. It wasn't long before people find other applications of ChatGPT except for having human-like conversation. Among these applications, recent studies have confirmed that ChatGPT is able to function as a good translator and pass United States Medical Licensing Exam (USMLE) (Jiao, 2023; Kung, 2023). In addition, it is found that ChatGPT has emerged as a popular trend in academic writing, where students can generate written work with minimal effort. While this technology has the potential to improve students' academic performance, it also raises ethical concerns, particularly regarding academic integrity, which is the fundamental element of educational process, and universities and colleges are taking great measures to ensure that students uphold it (Cotton, 2023). However, the use of ChatGPT in academic writing poses a challenge to academic integrity, as it is difficult to distinguish between

original and machine-generated work. This issue raises questions about the responsibility of students and institutions in maintaining academic integrity in the age of AI.

This study aims to investigate the perceptions of college students and higher institutes regarding the influence of ChatGPT on academic integrity, trying to give practical ways to ensure academic integrity in ChatGPT era. To achieve this goal, a mixed-methods approach, including a survey and document analysis, was used. The survey collected data on students' attitudes towards using ChatGPT for academic work, while the document analysis will explore the current attitudes of universities and colleges towards ChatGPT's influence on academic integrity. By examining these perspectives, this study hopes to contribute to the ongoing discussion on academic integrity in the context of AI-powered tools. The findings of this research will have practical implications for universities and colleges in formulating policies and guidelines to regulate the use of ChatGPT in academic work, ultimately ensuring academic integrity in the educational process. Meanwhile, the method of combining student-based survey with institutional document analysis not only provides a new study perspective to give a more comprehensive picture of education policy practices, but also has the potential to inform and guide future research in this area.

## **2. Literature Review**

### **2.1 The Definition of Academic Integrity**

Academic integrity is an important but complex topic that lays foundation for modern education system and correlates to different cultural and historical backgrounds

(Bretag, 2016). The phrase “academic integrity” can be divided into two parts, one is “academic” and the other is “integrity”. “Academic” can be defined as something related to academia, which Macfarlane et al. (2014) refer to “teaching, research and service” (p. 341). However, the word “integrity” has different kind of understandings. The original and basic meaning of “integrity” that is widely accepted is “totality, as wholeness and completeness” (Rendtorff, 2015, p. 2). From philosophical and moral perspective, “integrity” can be understood as a kind of ethical virtue or “excellence of a character” (Macfarlane et al., 2014). Similar concept of “integrity” also exists in other cultural contexts. In Chinese ancient culture, the concept of “integrity” is represented by Chinese characters “cheng” and “xin”, which means honesty and truthfulness and was widely discussed in Analects of Confucius (Liang, 2009; Macfarlane et al., 2014). In the US context, the founder of modern concept of academic integrity, Donald L. McCabe (2004) gave ten principles of academic integrity, and 5 of which, “honesty, trust, fairness, respect and responsibility” are regarded as the core principles of academic integrity by The Center for Academic Integrity (CAI). Based on these previous studies and for the purpose of current study, the overall concept of academic integrity can be concluded and defined as a set of values and principles that promote honesty, trust, fairness, respect, and responsibility in all aspects of academic work.

## **2.2 AI and ChatGPT’s Impact on Academic Integrity**

The fast development of artificial intelligence (AI) and natural language processing (NLP) models, such as ChatGPT developed by OpenAI, has made a huge impact on academic integrity issues both positively and negatively. There’s no doubt that AI and

ChatGPT can help find out students' academic misconduct and thus can better protect academic integrity technically. Chen et al. (2020) highlight AI's important role "in fostering academic integrity, using plagiarism checkers and proctoring and online supervision of students' activities on platforms such as Grammarly, TurnItIn and White Smoke" (p. 11). However, there's increasing concern that the advanced cognitive abilities of ChatGPT, which allow it to produce human-like responses that are difficult to differentiate, may potentially facilitate academic dishonesty in exams, homework, and other academic works. (Susnjak, 2022; Abdelaal, 2019; Cotton, 2023), thus leading to academic integrity issues. Susnjak (2022) has found that ChatGPT is able to "exhibiting critical thinking skills and generating highly realistic text with minimal input" (p. 7) and Cotton (2023) emphasizes the obstacles of "detecting and preventing such abuses [for academic dishonesty]" (p. 1). Despite the fact that those studies have shown the potential threats of ChatGPT on academic integrity and give some suggestions including changing exam modes (Susnjak, 2022) and upgrading policies (Jürgen, 2023), there lacks systematic and objective overview on whether using chatGPT as a tool is considered as academic misconduct and practical solutions are seldom given.

### **2.3 Documents in Research**

Applying document analysis in qualitative research is a practical and common way when studying such a controversial and continually varying topic concerning a brand novel technique such as ChatGPT as "documents can provide a means of tracking change and development." (Bowen, 2009, p. 30) In addition, previous studies have

employed document analysis in studying the effectiveness of academic integrity policies. For example, Stoesz (2020) collected 24 academic integrity policy documents to explore the drawbacks of academic integrity policies in Canada. With several universities updated their latest policies on ChatGPT usage, it is necessary and effective to use document analysis as a research method.

### **3. Methodology**

The aim of this study was to investigate college students' perceptions of the influence of ChatGPT on academic integrity. To achieve this aim, a mixed-methods approach was used, consisting of a survey and document analysis. The whole study was framed to answer the following questions:

- (1) What are the students' perspectives on using ChatGPT for academic work?
- (2) What are the current reactions of colleges to ChatGPT usage and academic integrity issues?
- (3) How could academic integrity be ensured while using ChatGPT as an effective tool?

#### **3.1 Participants**

The participants were college students who were currently enrolled in higher education institutions in China. Participants were selected through purposive sampling, with the goal of obtaining a diverse range of major backgrounds and experiences. 57.5% of the participants major in engineering, and the other 42.5% major in other fields such as science (11.25%), business (11.25%) and economy (7.5%). It was observed that most

of the participants had used or heard of ChatGPT and had basic concepts of academic integrity. Participation in the study was voluntary and anonymous.

### **3.2 Data collection**

The survey was administered online via Wenjuanxing, a web-based survey platform. The survey consisted of closed-ended and scalar questions, with a focus on students' academic purposes of using ChatGPT and their perceptions of ChatGPT's influence on academic integrity. An additional question which asked participants to identify whether the context was written by ChatGPT was included to explore whether ChatGPT-generated texts could be identified by humans. The participants did not know the right answer and thus were unable to tell other participants the correct answer. The whole survey was conducted bilingually to ensure that the participants, whose first language was not English, could fully understand the questions and respond effectively. The whole survey content is presented in Appendix1. The document analysis was conducted on relevant documents, including institutional policies and guidelines related to academic integrity and the use of AI in education. These documents were obtained from the official websites of higher education institutions in the United States of America, the United Kingdom, Canada, Hong Kong, China and mainland China. Document collection process was conducted by inserting the name of the college and other related prompts such as “academic integrity”, “AI”, and “ChatGPT”. The search function integrated in the official website of the institutions was also used to find out more effective and latest documents. The study examined 46 targeted higher institutions' websites and the inspection turned out 16 of the collection lacked official and detailed

academic integrity policy documents or description. In total, 30 documents were finally encompassed in the document analysis process. The update time of those documents were also inspected to ensure time effectiveness, all of the selected institutions are listed in Table1, and the origins of the documents are shown in the Appendix2.

**Table1**

*List of collected academic integrity policy documents*

University	Country/Region	Update time
California Institute of Technology	U.S.A.	2022
Chinese University of Hong Kong	Hong Kong, China	2023
Columbia University in the City of New York	U.S.A.	2023
Cornell University	U.S.A.	2023
Fudan University	China mainland	2021
Harvard University	U.S.A.	Not Found
Hong Kong University	Hong Kong, China	2023
Hong Kong University of Science and Technology	Hong Kong, China	2023
Johns Hopkins University	U.S.A.	2023
London School of Economics and Political Science	U.K.	2023
Massachusetts Institute of Technology	U.S.A.	2020
Miami University	U.S.A.	2023
New York University	U.S.A.	2011
Northwestern University	U.S.A.	2023
Peking University	China mainland	2007

Shanghai Jiao Tong University	China mainland	2017
Shanghai University of Technology	China mainland	2015
Stanford University	U.S.A.	Not Found
Tsinghua University	China mainland	2020
University of California, Los Angeles	U.S.A.	2023
University of Cambridge	U.K.	2023
University of Chicago	U.S.A.	2023
University of Maryland	U.S.A.	2023
University of Michigan	U.S.A.	2023
University of Oxford	U.K.	2023
University of Pennsylvania	U.S.A.	2000
University of Toronto	Canada	2023
University of Waterloo	Canada	2023
Yale University	U.S.A.	2023
York University	U.S.A.	2023

*Note.* Listed universities are ranked in alphabetical order.

### 3.3 Data analysis

The survey received 80 valid responses, all of which completed the whole survey. The data collected from the survey were analyzed using descriptive statistics and thematic analysis. The closed-ended questions were analyzed using frequency distributions and cross-tabulations to identify patterns and relationships in the data. Scaled questions were analyzed by adding the scores to reflect students' perceptions.



The additional ChatGPT generated context identification problem was analyzed both by the accuracy of the respondents and their previous choices. Through content analysis strategy and coding practice, the document analysis focused on the extent to which these documents addressed issues related to the influences of ChatGPT on academic integrity and the attitudes of selected higher education institutions towards the usage of ChatGPT and other Artificial Intelligence tools.

### **3.4 Limitations**

The current study inquiries into the influence of ChatGPT on academic integrity from students' and colleges' perspective. However, there are some limitations. First, as ChatGPT is technically forbidden in China mainland, there lacks enough participants from broader backgrounds and ChatGPT using experience. Future research can be conducted worldwide and include as many participants as possible to seek out more general conclusions. Second, the collection of the documents as well as the coding process during the document analysis may lead to bias as they are self-selected and assessed. The documents are mainly from top universities and may not be representative to a wider context. The attitudes from the documents may also differ due to personal understandings. Future research can use advanced techniques like Python to collect more reliable documents and to analyze text-based data. Finally, ChatGPT is still a rather fresh technology, and thus it's difficult to test whether the strategies given in this study are practical. It is recommended that future research can look into the long-term effects of ChatGPT on academic integrity and collect practical data of this topic.

## 4. Results and Discussions

### 4.1 Results from the survey

Despite the fact that ChatGPT is not able to be readily accessed due to technical and legal issues in China, the result shows that a majority of the participants (82.5%) have used or seen someone else using ChatGPT or other chatbots, such as New Bing, Google Bard, and Baidu Yiyan. Among these participants, most of them (67.6%) have used ChatGPT themselves.

Next, the study collected participants' academic purposes of using ChatGPT. Of the two groups of participants, one has used or seen other people using ChatGPT, and the other who has never used ChatGPT before gave out similar but slightly different outcomes. As shown in Figure 1.1, a majority of the ChatGPT-experienced participants use ChatGPT for asking academic questions (75.93%), polishing writings (55.56%) and completing writing tasks (51.85%). However, for those who never used ChatGPT, they tend to be more convinced that ChatGPT can help them extract text (research papers, literature, etc.) information (61.54%) compared to ChatGPT-experienced participants (37.04%).

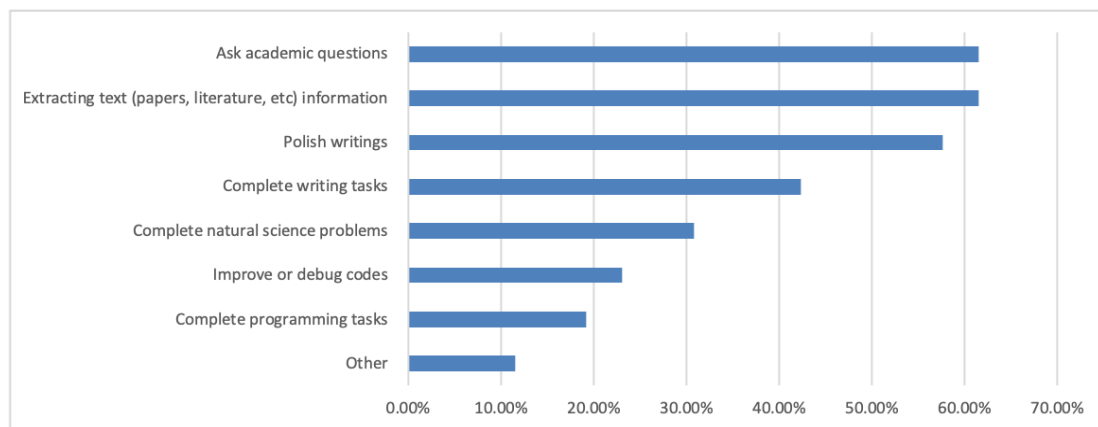
#### **Figure1.1**

Academic purposes of using ChatGPT (have used or seen other people using ChatGPT)



**Figure1.2**

Possible Academic purposes of using ChatGPT (who have never used ChatGPT before)



*Note.* Themes are ranked in a descending order.

The figure in question highlights potential limitations of ChatGPT as an academic tool, beyond any ethical concerns. Specifically, a lower percentage of students who have used ChatGPT report using it to extract information from papers and literature. This suggests that students may find it inconvenient or may lack the capability to effectively summarize longer passages using ChatGPT. Nevertheless, a majority of students still use ChatGPT to polish their writing or even to complete writing tasks, which speaks to its strong language processing abilities. Moreover, ChatGPT ranks highly in terms of its usefulness in answering academic questions, indicating that it can

have positive effects on students' learning processes. Positive feedback from students further supports this conclusion. However, it is important to note that while ChatGPT is a valuable study tool, its potential limitations should not be overlooked. The figure suggests that its use may be less widespread than expected and that there are certain constraints on its functionality. Thus, while ChatGPT shows promise as an academic aid, it is not yet a mature technology, and its full potential has yet to be realized.

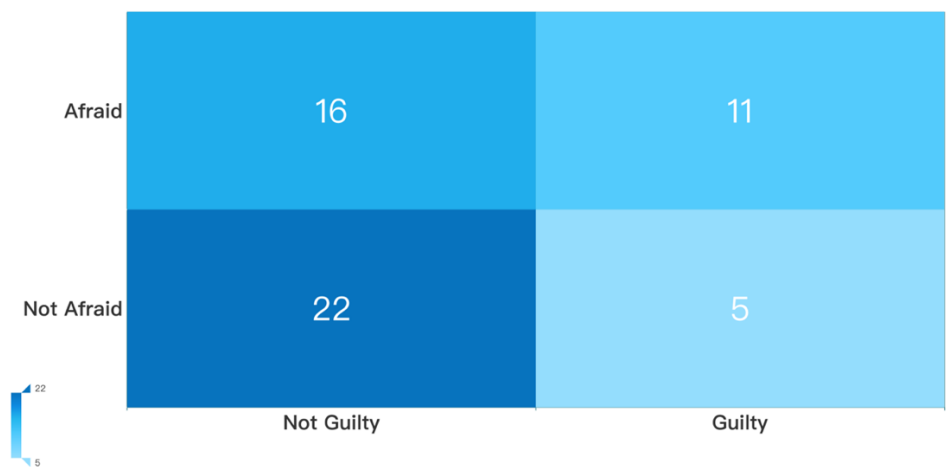
The figures reveal another concerning issue: the most popular use of ChatGPT could be interpreted as a breach of academic integrity. Susnjak's research (2022) confirms that ChatGPT and generative AI possess the ability to “think and reason critically, as well as express thoughts and ideas in quality prose” (p. 13). Students' responses also indicate this potential. However, academic integrity requires students to be “honest and responsible” in their academic work, which entails producing their own work rather than relying on a third party. The most common uses of ChatGPT, such as “completing writing tasks” or “completing coding tasks,” may violate this requirement since the content is not generated by the students. Thus, it is reasonable to conclude that ChatGPT poses a challenge to academic integrity.

Then, the study further explored students' experience and mental feelings after using ChatGPT for academic works. Almost all participants who have used ChatGPT for academic purposes claimed that ChatGPT is helpful to their academic works. However, the use of ChatGPT as an academic tool has led to disagreements among students regarding their mental feelings and perspectives on academic integrity issues. A simple heatmap (See Figure 2) has revealed that students' mental feelings and

tendencies are varied. Although most students do not feel guilty about using ChatGPT for academic work, they tend to be afraid of being discovered by their instructors.

**Figure 2**

Students’ mental feelings after using ChatGPT for academic works



*Note.* The figures on the blocks represent the numbers of participants choosing the option. The depth of the color of each block corresponds to the figures.

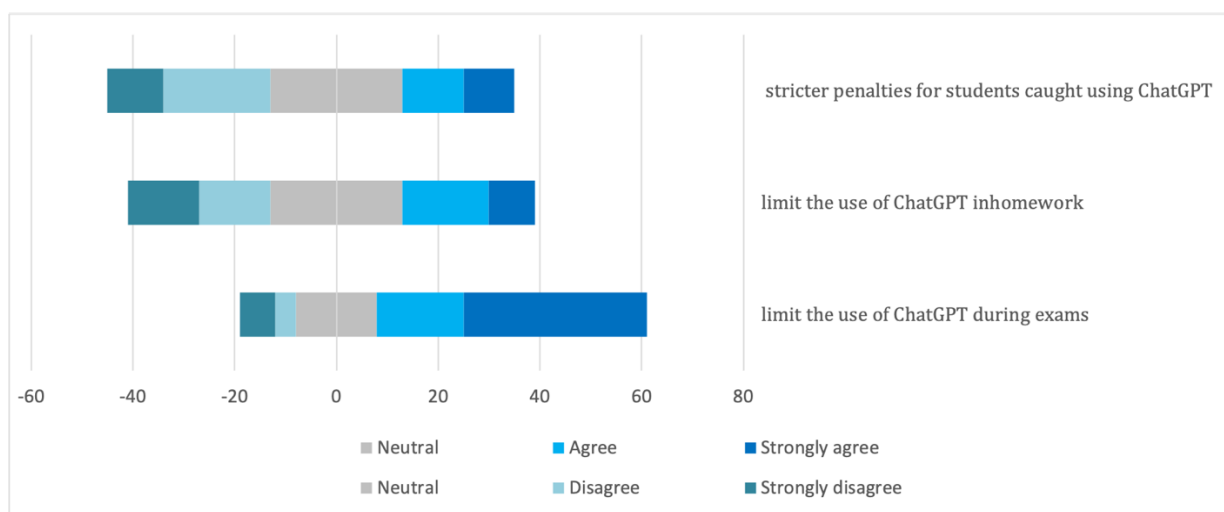
These mixed and various mental feelings shown in the graph can be attributed to several factors. Firstly, differing beliefs and values related to academic integrity can influence students' perceptions of ChatGPT's appropriateness. Some students may view the use of ChatGPT as a violation of academic integrity, while others may not see it as such. Secondly, the lack of official announcements or guidelines regarding the use of ChatGPT in academic settings can lead to disagreements among students. Without clear rules and regulations, students may have differing opinions on the acceptability of using ChatGPT, which can result in mixed feelings and perspectives. Thirdly, students' immature perceptions of academic integrity, combined with their limited technical understanding of ChatGPT's mechanisms, can also contribute to disagreements. Some

students may not fully understand the ethical implications of using ChatGPT for academic work, while others may not have a clear understanding of how ChatGPT works or its limitations.

The Likert scale used in the survey provides insight into students' perspectives regarding the use of ChatGPT in academic settings. Figure 3 illustrates that students generally disagree with limiting the use of ChatGPT for homework or imposing stricter penalties for its use. However, they tend to agree with limiting its use during exams.

**Figure 3**

Likert scale of students' perspectives on possible academic restrictions on ChatGPT.



There are several factors that may contribute to these perspectives. Firstly, students may view homework assignments as an opportunity for learning and improving their writing skills. Thus, they may feel that limiting the use of ChatGPT would impede their progress. On the other hand, exams are typically viewed as a more formal assessment of a student's knowledge and abilities. Therefore, students may believe that stricter guidelines are necessary to ensure academic integrity. Additionally, students' perspectives may be influenced by their understanding of the practicality and

educational value of ChatGPT. For many students, ChatGPT can be a useful tool for enhancing their writing skills and improving the quality of their academic work. Thus, they may feel that limiting its use would be detrimental to their education. Lastly, students' perspectives may also be shaped by their perceptions of academic integrity and the consequences of violating it. While some students may see the use of ChatGPT as a harmless tool, others may view it as a form of cheating that should be penalized more severely.

Therefore, establishing a clear moral standard for academic integrity is crucial to make students aware of the potential for academic misconduct when using ChatGPT. As noted in the literature review, academic integrity is an "ethical virtue" (Macfarlane et al., 2014) with five core values: honesty, trust, fairness, respect, and responsibility. These values must be integrated into students' daily academic behaviors, not only to protect academic integrity for fairness and to ensure their own interests but also to develop an ethical standard that can regulate their use of ChatGPT. While ChatGPT can be an effective tool, it is vital for students to recognize the possibility of ethical breaches and to use the technology responsibly. By promoting academic integrity as a moral standard, students will be better equipped to navigate the ethical challenges of using AI in academic work.

The survey conducted also delved into the participants' ability to differentiate between contents generated by ChatGPT and those written by humans. The results showed that there was some difficulty for humans in making such distinctions, as revealed by the correlation analysis of Question 2 and Question 11. Although more than

half of the participants were able to correctly identify the ChatGPT generated content, the overall accuracy rate was still relatively low when taking into account the basic probability of chance (which would be around 30%). Interestingly, those who have previously used ChatGPT appeared to have a slightly higher likelihood of correctly identifying the machine-generated contents. This finding has important implications for academic integrity as it suggests that detecting plagiarism could become increasingly challenging as AI technology continues to advance. The detailed breakdown of the participants' responses to Question 2 and Question 11 can be found in Table 2 and Figure 4.

**Table 2**

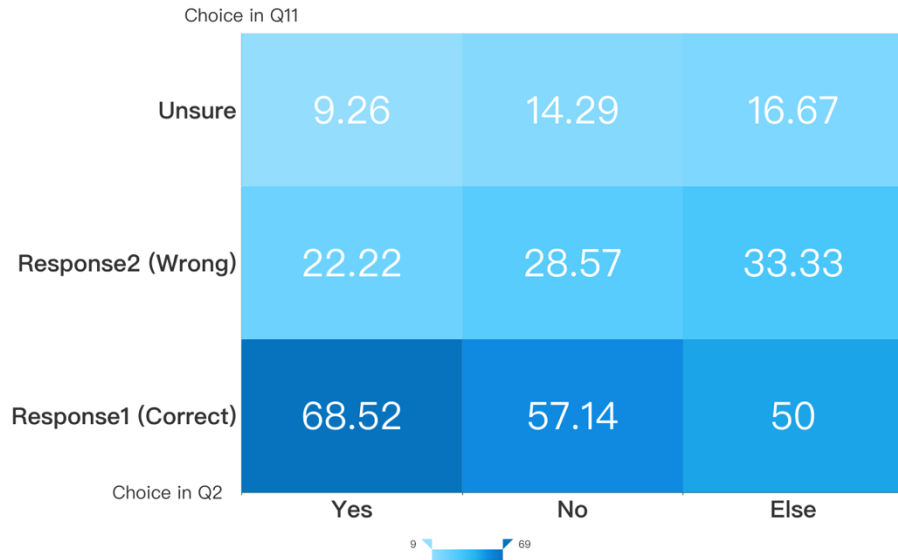
Participants’ response to Question2 and Question11

	Response1	Response2	Unsure
Yes	37	12	5
No	8	4	2
Watched someone else use it	6	4	2

**Figure 4**

Correlated heatmap of Q2 and Q11





*Note.* The figures on the blocks represent the percentages of participants choosing the option. The depth of the color of each block corresponds to the figures.

The low accuracy rate in identifying machine-generated contents suggests that traditional methods of detecting plagiarism, such as software-based plagiarism checkers, may become less effective in the future. This highlights the need for academic institutions to develop new strategies to prevent and detect plagiarism, including educating students on the responsible use of AI writing tools and investing in advanced AI-based plagiarism detection systems.

## 4.2 Results from document analysis

After examining all the collected documents, the study first coded 5 attitudes and reactions categories ranging from “encourage” to “strictly prohibited”. All the 30 selected documents were categorized into those 5 themes and a typical example of the particular theme was used for further study (See Table3).

**Table 3**

*Categorized attitudes towards ChatGPT and academic integrity.*

Attitudes	Number	Percentage	Typical Example
Encourage	1	3.3%	Hong Kong University of Technology and Science
Encourage and give guidelines	8	26.7%	University of California, Los Angeles
Not mentioned or clarified	12	40.0%	University of Pennsylvania
Not so encourage and give limitations	7	23.3%	University of Chicago
Strictly prohibited	2	6.7%	Hong Kong University

From Table3, it is worth noting that the majority of universities (40%) did not explicitly mention their stance on ChatGPT usage in relation to academic integrity. However, among those who did, there is a range of attitudes, from encouragement and providing guidelines to limitations and strict prohibition. Extracts of these typical examples are provided to show how universities deal with ChatGPT and academic integrity in detail.

### **Encourage**

As shown in Table 3, of the collected academic integrity policy documents, only HKUST expresses an encouraging and very supportive attitude towards generative AI, such as ChatGPT, as an effective tool, which can be further explored in the following extract.

#### *Extract 1*

At HKUST, we are excited about the potential of generative AI to transform education and research. We believe that access to generative AI tools will be invaluable for faculty members, teaching staff, and students as they prepare to embrace these technologies. We do remind users to use these tools responsibly,

with a clear understanding of their capabilities and limitations, and with a commitment to ethical usage practices.

From the extract, it can be seen that The Center for Education Innovation at HKUST believes that access to generative AI tools will be invaluable for faculty members, teaching staff, and students as they prepare to embrace these technologies. While the extract notes the importance and ethics of using AI properly, clear and serious restrictions are not provided, which may suggest that HKUST encourages overall usage of ChatGPT. The South China Morning Post reported that "University of Science and Technology gives staff free rein to decide the best use of AI tools" (Yiu, 2023), which supports the credibility of the extract.

### **Encourage and give guidelines**

Some universities not only encourage students to embrace ChatGPT, but also provide detailed guidelines to tell students to which extent should they use ChatGPT as an academic tool. The University of California, Los Angeles (UCLA) is an example of such a university.

#### *Extract 2*

Students and instructors are embracing ChatGPT (GPT-4 as of March 2023) and similar artificial intelligence (AI) technologies across disciplines for different learning goals. [...] We will provide strategies for adopting AI technologies in a responsible, ethical manner, and innovating within each discipline, major, and course [...] Unless otherwise specified by the faculty member, all submissions, whether in draft or final form, to meet course requirements (including a paper,

project, exam, computer program, oral presentation, or other work) must either be the student's own work, or must clearly acknowledge the source.

This extract from University of California, Los Angeles (UCLA) clearly acknowledges that students and instructors are embracing ChatGPT and similar AI technologies across disciplines for different learning goals, and provides strategies for adopting AI technologies in a responsible, ethical manner while innovating within each discipline, major, and course. It is worth noting that, compared to the document from HKUST, UCLA's guidelines are more detailed and provide clear regulations, indicating that they take ChatGPT usage more seriously. For instance, they specify that all submissions, whether in draft or final form, must be the student's own work, or must clearly acknowledge the source, unless otherwise specified by the faculty member.

### **Not so encourage and give limitations**

Other universities, such as the University of Chicago, express concerns about the overuse of ChatGPT and present a reluctant attitude towards its use.

### *Extract 3*

Already, however, ChatGPT-generated text has proved itself capable of evading plagiarism checkers such as Turnitin. Plagiarism detection software relies on comparing student work to a database of pre-existing work and identifying identical phrases, sentences, etc. to produce an “originality score”. Because the text generated by ChatGPT is (in some sense, anyway) “original,” it renders this technique useless. ChatGPT also ties into the broader issue of contract cheating – hiring a third party to do work, such as writing an essay or taking an exam, on a

student's behalf [...] strategies, actual and proposed, for coping with the tool can be divided into three categories: technological prevention; non-technological prevention; and creative adaptation.

In this extract, the University of Chicago points out that ChatGPT-generated text has already proven capable of evading plagiarism checkers such as Turnitin. This concern is also in line with Cotton's research that show the difficulty of current plagiarism checkers distinguishing AI-generated contents. (Cotton, 2023) The document provides detailed strategies for coping with ChatGPT, including "technological prevention, non-technological prevention, and creative adaptation". The document also specifically explains how using ChatGPT violates academic integrity rules, such as "contract cheating," which is similar to "hiring a third party to do work on a student's behalf." The use of the term "cope with" suggests that the university sees ChatGPT as an issue or a problem, and their strategies, such as prevention, focus on limited use of ChatGPT.

### **Strictly Prohibited**

There are also some universities strictly prohibit the use of ChatGPT. Hong Kong University is a good example showing very negative attitude.

#### *Extract 4*

As an interim measure, we prohibit the use of ChatGPT or any other AI-based tool for all classroom, coursework and assessment tasks at HKU. Exemptions require written permission from course instructors. Students cannot provide themselves or other students with exemptions.

This extract from Hong Kong University (HKU) directly prohibits the use of ChatGPT

in academic purpose. Despite the word “interim measure”, a strong and conservative stance is still shown in this document. The permission policy also reflects serious restriction of ChatGPT usage in HKU.

From those extracts, it is found that there’s huge variation in attitudes towards the use of ChatGPT in academic work, suggesting that there may not be a consistent approach to dealing with this issue. Some universities may encourage the use of ChatGPT as a tool to assist students in their academic work, while others may prohibit its use altogether. This lack of consistency could lead to confusion among students who may not be aware of the differing policies at different universities. Students who are allowed to use ChatGPT may have an unfair advantage over those who are not, potentially compromising the integrity of the academic process. On the other hand, students who are strictly prohibited from using ChatGPT may feel that they are at a disadvantage compared to their peers who are allowed to use this tool. Therefore, it is important for universities to develop clear policies and guidelines on the use of ChatGPT in academic work to ensure that there is consistency in approach and enforcement. This would not only help to promote academic integrity but also provide students with a clear understanding of what is expected of them when it comes to the use of ChatGPT in their academic work. In addition, a large portion of the universities haven’t updated their academic integrity policies on AI tools and ChatGPT, which may further add to students’ confusion and possibilities of using ChatGPT improperly. The findings also show that none of the universities in China mainland have provided detailed or updated version academic integrity policies toward AI tools and ChatGPT.

However, the survey has proved that most of the students in universities in China have had access to ChatGPT. Therefore, compared to active reactions in America and Europe, it is highly recommended that universities in China should take ChatGPT into consideration and seek for proper solutions.

For other universities, it is also suggested that detailed instructions and guidelines should be made as soon as possible to give students clear directions. Some practices discussed in recent studies (Jürgen, 2023; Susnjak, 2023) and guidelines from the documents of universities include in this study could present a possible pathway to ensure academic integrity while using ChatGPT as an effective tool. First, both schools and students should be aware of the possible threats of ChatGPT to academic integrity. Higher education institutions should tell students about how using ChatGPT can lead to academic misconduct, such as contract cheating issues mentioned in the document of UCLA, so that the students can have the way to examine whether their ChatGPT's usage is acceptable, reducing their guilty and fear feelings. Second, universities could consider implementing technology-based solutions to detect and prevent academic misconduct related to the use of ChatGPT. As mentioned in the document from University of Chicago, plagiarism detection software can be used to identify any copied content generated by ChatGPT. Additionally, universities could provide training to both faculty and students on how to use ChatGPT ethically and responsibly, as recommended by Yale University's guidelines. By taking these steps, universities can ensure that the use of ChatGPT does not compromise academic integrity and can be used as a valuable tool for enhancing student learning and research.

## **5. Conclusion**

In conclusion, this study explored the perceptions of students and higher education institutions towards ChatGPT's influences on academic integrity, using a mixed-methods approach. With data-based surveys and document-based analyses, the findings indicate that while ChatGPT has the potential to help students complete academic tasks and express their ideas effectively, its use can also lead to academic misconduct and violate the principles of academic integrity. Moreover, the study highlights the importance of promoting a strong academic integrity culture among students and higher education institutions, as well as the need for clear policies and guidelines to regulate the use of ChatGPT in academic work. Furthermore, while some universities have embraced ChatGPT as a valuable educational tool, others remain cautious and prohibit its use altogether. To ensure fairness and integrity in academic work, universities should develop comprehensive policies and guidelines on the use of ChatGPT, including technology-based solutions to detect and prevent academic misconduct related to its use. However, the current study is also limited by the lack of diverse participants and experiences due to ChatGPT being forbidden in China and potential bias in document collection and coding. Thus, future research should explore more generalizable conclusions using advanced techniques and collect long-term practical data on the topic. Ultimately, this study emphasizes the urgent need for educators, students, and technology developers to engage in continuous dialogue and collaborate together to foster a culture of ethical and responsible use of ChatGPT and other AI technologies,



ensuring that these tools are harnessed to enhance learning experiences and uphold the values of academic integrity.

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## **Appendix1: Survey**

Link:

<https://www.wjx.cn/wjx/activitystat/verifyreportpassword.aspx?viewtype=1&activity=214405428&type=1>

**Survey on chatGPT's impacts on academic integrity. 关于 chatGPT 对于学术诚信影响的问卷**

You're invited to participate in a research study about chatGPT's impacts on academic integrity. The goal of this research is to inquire into how chatGPT will influence students' perceptions on academic integrity and to seek out possible practices. Participation in this study is voluntary. The information you will share with me if you participate in this study will be kept completely confidential. Your information will be assigned a number that is unique to this study. No one else will be able to see your survey or even know whether you participated in this study. When the study is completed, the list linking participants' names to study numbers will be destroyed.

诚邀您参加一项关于 chatGPT 对学术诚信影响的研究。本研究旨在探讨 chatGPT 对学术诚信的影响，并寻找可能的做法。参与本研究是自愿的。如果您参加本研究，您分享的信息将被完全保密。您的信息将被分配一个独特的编号，仅用于本研究。没有其他人能够看到您的调查，甚至不知道您是否参与了这项研究。当研究完成时，将销毁将参与者姓名与研究编号相关联的名单。

1. Your major disciplines: (您的专业大类) [单选题] \*

- ☐ Engineering 工学
- ☐ Science 理学
- ☐ Business 商学
- ☐ Economy 经济
- ☐ Humanity and Social Science 人文社科
- ☐ Language and Linguistics 语言类
- ☐ Medicine 医学
- ☐ Other 其他

2. Have you used chatGPT or other chat bots(New Bing, Baidu Yiyan, etc) 您用过 chatGPT 之类的 ai 聊天机器人吗 (比如 New Bing, 百度文心一言) [单选题] \*

- ☐ Yes 是 (请跳至第 3 题)
- ☐ No 否 (请跳至第 4 题)
- ☐ Watched someone else use it 看别人用过 (请跳至第 4 题)

3. What's your main academic purpose to use chatGPT (4 choices at most)? 您使用 chatGPT 的主要学术目的? [多选题] \*

- ☐ Ask academic questions 问学术问题, 例如概念理解, 知识点等
- ☐ Polish writings 修改写的文章
- ☐ Complete writing tasks 完成写作任务
- ☐ Complete programming tasks 写代码
- ☐ Improve or debug codes 改进或者 debug 代码
- ☐ Extracting text (papers, literature, etc) information 提取文本, 例如论文、文

献之类的信息

☐ Complete natural science (maths, physics and chemistry) problems. 完成自然

科学（数学、物理、化学）问题

☐ Other 其他

4. What academic purposes do you plan to achieve by using ChatGPT if you could use it? (4 choices at most) 如果你能够使用 chatGPT，你打算使用其实现哪些学术目的？ [多选题] \*

☐ Ask academic questions 问学术问题，例如概念理解，知识点等

☐ Polish writings 修改写的文章

☐ Complete writing tasks 完成写作任务

☐ Complete programming tasks 写代码

☐ Improve or debug codes 改进或者 debug 代码

☐ Extracting text (papers, literature, etc.) information 提取文本，例如论文、文

献之类的信息

☐ Complete natural science (maths, physics and chemistry) problems 完成自然

科学（数学、物理、化学）问题

☐ Other 其他

依赖于第 2 题第 2;3 个选项

5. If you have used ChatGPT for academic work, how would you describe your experience? 如果你用过 chatGPT 帮你完成学术任务，如何描述你的体验？ [单选题] \*

☐ It was helpful and improved my work 很有帮助，大大提升质量

☐ It was helpful but did not significantly improve my work 有帮助，但不会大幅提升质量

☐ It was not helpful and did not improve my work 没有帮助，不会提升质量

☐ I did not use ChatGPT for academic work 我不用 chatGPT 写作业

6. What's your feeling after using chatGPT for academic work? 用 chatGPT 完成学术任务后你的内心感受是什么? [单选题] \*

☐ Feel guilty and worried about being discovered by the teacher 有罪恶感，担心被老师发现

☐ Feel guilty but not worried about being discovered by the teacher 有罪恶感，不担心被老师发现

☐ Do not feel guilty but worried about being discovered by the teacher 无罪恶感，担心被老师发现

☐ Do not feel guilty and not worried about being discovered by the teacher 无罪恶感，不担心被发现

☐ I did not use ChatGPT for academic work 我不用 chatGPT 写作业

7. If someone uses chatGPT to achieve a higher score than you without using chatGPT, would you feel unfair? 如果有人使用 chatGPT 获得了比你不用 chatGPT 获得了更高的成绩，你会觉得不公平吗? [单选题] \*

☐ Yes 是

☐ No 否

☐ Unsure 无法确定

8. I think schools should limit the use of ChatGPT during exams. 我觉得学校应当限制 chatGPT 在考试中的使用 [单选题] \*

Strongly disagree 很不赞同	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	Strongly agree 非常赞同
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9. I think schools should limit the use of ChatGPT in homework. 我觉得学校应当限制 chatGPT 在平时作业中的使用 [单选题] \*

Strongly disagree	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	Strongly agree 非常赞同
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很不赞同

常赞同

10. I think there should be stricter penalties for students caught using ChatGPT for academic work? 我觉得学生被发现将 chatGPT 用于学术用途将受到更严格的惩罚 [单选题] \*

Strongly

disagree

很不赞同

☐ 1

☐ 2

☐ 3

☐ 4

☐ 5

Strongly

agree

非常赞同

11. For the question below, which response do you think is generated by chatGPT? 对于如下的问题，您认为哪个是由 chatGPT 生成的？

[单选题] \*

**问题：我期待学完“大学生心理健康”这门课后的收获：**

回答 1：学完大学生心理健康课程后，我将获得更深入的自我了解，掌握更好的情绪管理技巧和有效的压力管理策略。同时，我将提高人际交往能力和有效的沟通技巧，学会识别和处理心理问题，并建立积极的心理健康习惯，以增强个人的心理韧性和幸福感，为成功的大学生生活和职业发展打下坚实的基础。

回答 2：我希望通过这门课我可以更加了解心理健康的定义与判断，对心理健康有更系统和全面的认识，同时在大学生活的丰富与压力中学会调整自己的心态，发现更多美，拥有更加坚强的心灵，如果可以的话希望未来也能为别人带去一些什么，能更好地体谅他人。

Question: What do I expect to gain after completing the course "Psychological Health for College Students"?

Response1: After completing the mental health course for college students, I will gain a deeper self-understanding, better emotional management skills and effective stress management strategies. At the same time, I will improve my interpersonal skills and effective communication skills, learn to identify and deal with psychological problems, and establish positive mental health habits to enhance personal resilience and well-being, laying a solid foundation for successful college life and career development.

Response2: I hope that through this course, I can better understand the definition and judgment of mental health, have a more systematic and comprehensive understanding of mental health, and at the same time learn to adjust my mentality, discover more beauty, have a stronger heart in the rich and stressful university life, and if I can, I hope to bring something to others in the future and better understand others.

☐ Response 1 回答 1

○Response 2 回答 2

○Unsure 不知道

## **Appendix2: Document Resources:**

### **Global:**

1. Hong Kong University  
<https://tl.hku.hk/2023/02/about-chatgpt/>
2. University of Michigan  
<https://ecas.engin.umich.edu/avoiding-ai-based-cheating/>
3. University of Cambridge  
<https://www.plagiarism.admin.cam.ac.uk/definition>  
<https://www.plagiarism.admin.cam.ac.uk/what-academic-misconduct/artificial-intelligence>
4. University of Oxford  
<https://academic.admin.ox.ac.uk/article/unauthorised-use-of-ai-in-exams-and-assessment>
5. Harvard College  
<https://oue.fas.harvard.edu/academic-integrity-harvard-college>
6. University of Maryland  
<https://tltc.umd.edu/instructors/resources/artificial-intelligence-ai>
7. Northwestern University  
<https://www.northwestern.edu/provost/faculty-resources/student-and-teaching-resources/rankin.pdf>
8. University of Chicago  
<https://academictech.uchicago.edu/2023/01/23/combating-academic-dishonesty-part-6-chatgpt-ai-and-academic-integrity/>
9. York University  
<https://www.yorku.ca/unit/vpacad/academic-integrity/ai-technology-and-academic-integrity/>
10. Miami University  
<https://www.miamioh.edu/integrity/faculty-resources/chatcpt-and-ai-text/index.html>
11. UCLA  
<https://deanofstudents.ucla.edu/individual-student-code#:~:text=102.01c%3A%20Plagiarism&text=Unless%20otherwise%20specified%20by%20the,must%20clearly%20acknowledge%20the%20source.>  
[https://teaching.ucla.edu/resources/ai\\_guidance/?utm\\_source=1082289428&utm\\_medium=email&utm\\_campaign=&utm\\_content=guidance-2#toggle-id-7](https://teaching.ucla.edu/resources/ai_guidance/?utm_source=1082289428&utm_medium=email&utm_campaign=&utm_content=guidance-2#toggle-id-7)
12. Caltech  
[https://www.deans.caltech.edu/documents/22462/Honor\\_Code\\_Handbook\\_2022-23.pdf](https://www.deans.caltech.edu/documents/22462/Honor_Code_Handbook_2022-23.pdf)
13. Stanford



<https://communitystandards.stanford.edu/policies-guidance/honor-code>

14. MIT

<https://integrity.mit.edu/>

15. HKUST: give instruction to usage, call for "ethical use"

<https://cei.hkust.edu.hk/access-chatgpt-without-vpn-connection>

16. New York University

<https://www.nyu.edu/about/policies-guidelines-compliance/policies-and-guidelines/academic-integrity-for-students-at-nyu.html>

17. Columbia College

<https://ctl.columbia.edu/resources-and-technology/resources/ai-tools/>

18. LSE

<https://info.lse.ac.uk/staff/divisions/Eden-Centre/Resources-to-support-your-practice/Artificial-Intelligence-assessment-and-academic-integrity>

19. University of Pennsylvania

<https://undergrad.psu.edu/aappm/G-9-academic-integrity.html>

<https://www.psu.edu/news/information-technology/story/penn-state-host-discussions-ai-education/>

20. Yale University

<https://poorvucenter.yale.edu/AIguidance>

21. John Hopkins University

<https://ii.library.jhu.edu/2023/01/30/chatgpt-a-brief-introduction-and-considerations-for-academic-integrity/>

22. CUHK

<https://registry.cuhk.edu.cn/en/page/30>

23. University of Toronto

<https://www.academicintegrity.utoronto.ca/perils-and-pitfalls/using-chatgpt-or-other-ai-tool-on-a-marked-assessment/>

24. University of Waterloo

<https://uwaterloo.ca/academic-integrity/artificial-intelligence-and-chatgpt>

25. Cornell

<https://teaching.cornell.edu/promoting-academic-integrity-your-course>

<https://theuniversityfaculty.cornell.edu/dean/academic-integrity/code-of-academic-integrity/>

### **China Mainland:**

1. Tsinghua University

<https://www.tsinghua.edu.cn/xswyh/xfjs/xsgfzd.htm>

2. Peking University

《北京大学研究生基本学术规范及管理办法.pdf》

3. Shanghai Jiao Tong University

<https://gk.sjtu.edu.cn/Data/View/640>

4. Fudan University

《复旦大学学术规范.pdf》

5. Shanghai University of Technology

<https://openinfo.shanghaitech.edu.cn/2015/0706/c87a271/page.htm>