

Development and Validation of an Instrument Assessing University Students' Perceptions of the Use of Artificial Intelligence for Research

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Abstract: The researchers conducted this study to develop and validate instrument in assessing the perception of University students of the use of AI in research in the College of Industrial Technology, Sultan Kudarat State University, Isulan, Sultan Kudarat, in 2023. It was done in three-phases: (1) Defining the Focus and Item Generation; (2) Content Validation; and (3) Internal Consistency Assessment. Figure 1 shows the overview of the instrument development and validation process adopted from Bazhan et al. (2023) with modifications. As to content validity, the expert panel members evaluated the 90 items based on the four-point scale. Then, CVI for each item was calculated. In this round, the responses of the experts were converted as 1 (relevance scale of 3 or 4) or 0 (relevance scale of 1 or 2). In this stage, 11, 24, and 14 items with a content validity ratio (CVR) of less than 1 were eliminated for constructs 1, 2, and 3, respectively. The remaining items were revised to satisfy the recommendations of the experts in terms of the consistency of statements' verb tenses as well as the points of view utilized. As to internal consistency, it revealed that the reliability of the three constructs is greater than 0.90, indicating that the reliability is acceptable. This implies that all items demonstrated a valid internal consistency. Cronbach's α between 0.8 to 1 shows good reliability, between 0.6 to 0.79 indicates the reliability is acceptable, and less than 0.6 indicates poor reliability. Therefore, it is concluded that the students had positive perceptions towards the use of AI applications. The students enjoyed the learning, and the AI applications helped them in their writing. They reported that the AI used could help them understand the theoretical concepts, assist them during the writing process, and help them learn the grammar and vocabulary items in their writing. Thus, it is recommended that utilization of the developed tool to assess the perceptions of university students in AI in research will be used.

Keywords: Development and Validation of an Instrument, University Students, Artificial Intelligence, Research, Philippines, Taiwan, United States of America.

I. INTRODUCTION

Artificial Intelligence (AI) is a digital tool that has the capability to conduct certain activities resembling people's competencies (Sheikh et al., 2023). This technology has made significant strides recently, especially in the field of educational research, and the educational system is no exception. Researchers, educators, politicians, and stakeholders have all expressed a great deal of interest in and disagreement over the incorporation of AI technologies into educational settings. The possible impact of AI on students' learning results has attracted a lot of attention. Understanding AI's consequences for educational practices and student accomplishment as far as research tasks are concerned is crucial to ensuring the effective and efficient use of these cutting-edge technologies in the learning environment as AI applications continue to grow.

Academic writing is currently a worldwide concern. A plethora of studies on academic writing difficulties in higher education has been conducted. With the advancement of technology, the challenges of academic writing can be alleviated by using an artificial intelligence (AI) powered digital tool. However, research using them in post-graduate academic writing classrooms is still limited and little is known about how students perceive it. Kurniati & Fithriani (2022) investigates how post-graduate students view Quillbot as a digital tool for English academic writing. The findings reveal that the post-graduate students in this study responded positively to using Quillbot to assist them in improving the quality of their writing. They also found out three benefits with the use of the said app: (1) enhancing students' positive attitude toward writing, (2) providing a variety of user-friendly writing features, and (3) aiding students' language development. This study implies that AI-powered technology like Quillbot in writing, particularly in academic writing, has a significant role in creating high-quality writing for students.

As artificial intelligence (AI) becomes increasingly integrated into higher education, understanding how students perceive its impact is crucial. Kumar & Raman (2022) seeks to understand the students' perceptions on the use of AI in higher education. AI could form part of higher education in multiple ways, whether it be in the teaching and learning process, admission process, the placement process of the administrative process. The results indicated that AI can be effectively used in teaching-learning process, academic and administration processes. Researchers need to consider and solve several potential concerns and challenges when assessing the effect of artificial intelligence on students' learning results. For instance, there are numerous potential applications for ChatGPT in medical writing, according to a paper titled, "ChatGPT Is Shaping the Future of Medical Writing but Still Requires Human Judgment" (Kitamura, 2023). The emergence of Artificial Intelligence (AI) has gained momentum recently and has become a prominent topic of discussion among various stakeholders in education. Particularly, its influence has manifested itself in the field of educational research. The University of the Philippines just released a set of guidelines on the responsible use of AI in the academe (CNN, 2023).

Keleş & Aydın (2021) studied the perception of university students about the concept of AI through the Independent Word Association Test, and the results were analyzed using content analysis. This study used an integrated reliability formula = $\text{Consensus} / (\text{Consensus} + \text{Disagreements})$. The mean reliability among the coders for this study was recorded at 85% to 90%. Relative to this, Al-Badi et al. (2022) studied how learners and instructors view AI in personalized learning. Data were analyzed using Independent-Samples Mann-Whitney U Test and Independent-Kruskal-Wallis Test. The study revealed that both learners and instructors hold positive perceptions towards AI implementation in personalized learning in Higher Education. Moreover, Chan & Hu (2023) explored university students' perceptions of generative AI (GenAI) technologies, such as ChatGPT, in higher education, focusing on familiarity, their willingness to engage, potential benefits and challenges, and effective integration. However, these studies did not explore how students were exposed to AI or the actual impact of AI on conducting research among university students.

To measure university students' perceptions, the Likert scale is found to be the most appropriate type of instrument for this study. Albeit it has been repeatedly used in educational research, apparently its effectiveness is incontestable if it will follow a non-even number of responses of more than five i.e., seven-point, which could better heighten its validity and reliability (Kusmaryono et al., 2022).

The developed and validated instrument aims to capture the impact of AI and understand its parameters when conducting research, especially among university students who are immersed in research activities in their respective courses (Adebisi, 2022). Moreover, the outcomes of this instrument could provide a more comprehensive understanding of the role of AI in conducting research among university students and serves as guide for crafting policies on its responsible use.

Research Problem

The researchers conducted this study to develop and validate instrument in assessing the perception of University students of the use of AI in research in the College of Industrial Technology, Sultan Kudarat State University, Isulan, Sultan Kudarat, in 2023.

Specifically, it answers the following questions:

1. What is the content validity of the instrument in assessing the perception of university students of the use of AI in research in terms of:
 - 1.1 awareness of AI applications;
 - 1.2 use of AI research; and
 - 1.3 implication of AI research and education?

2. What is the internal consistency of the instrument in assessing the perception of university students of the use of AI in research?
 - 2.1 awareness of AI applications;
 - 2.2 use of AI research; and
 - 2.3 implication of AI research and education?
3. Based on the findings, what developed and validated instrument can be proposed?

II. RESEARCH METHODOLOGY

This study was conducted at the College of Industrial Technology, Sultan Kudarat State University, Isulan, Sultan Kudarat, in 2023. It was done in three-phases: (1) Defining the Focus and Item Generation; (2) Content Validation; and (3) Internal Consistency Assessment. Figure 1 shows the overview of the instrument development and validation process adopted from Bazhan et al. (2023) with modifications.

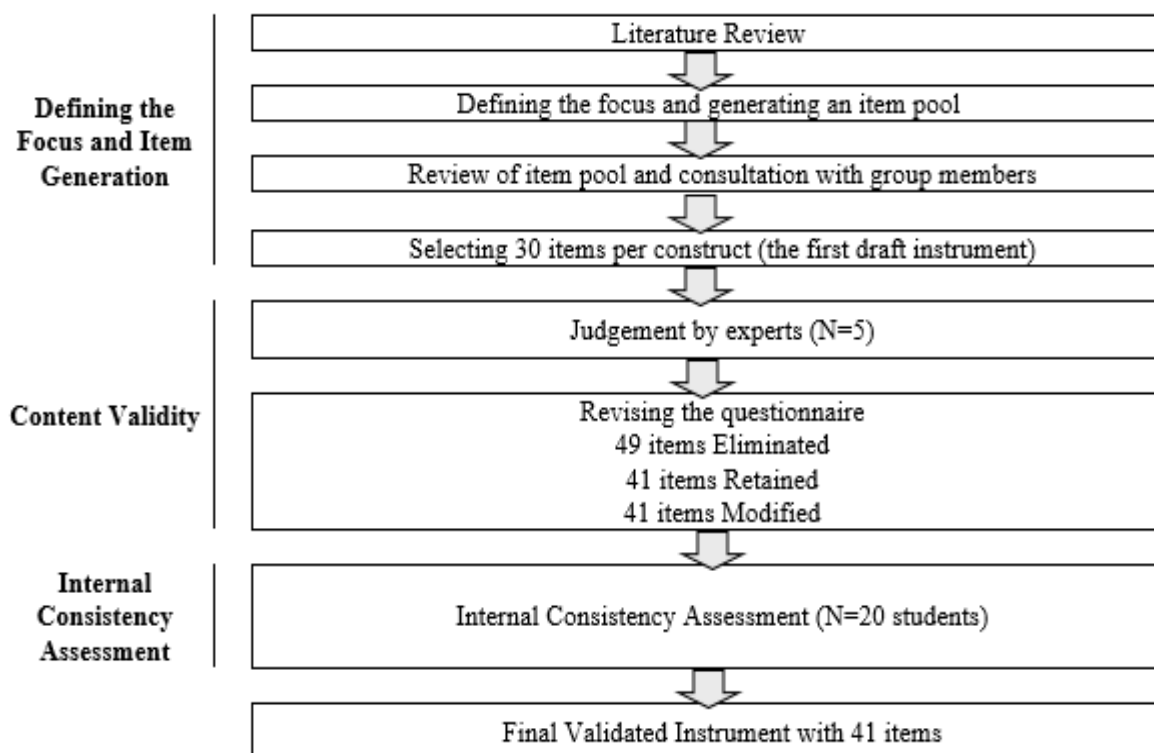


Figure 1. Three-step instrument development procedure.

Phase I: Defining the Focus and Item Generation

A review of literature using search engines was carried to identify publications related to measure student’s perception on the use of AI for research, some general references were reviewed and among them are the “The impact of AI on learner-instructor interaction in online learning” of Seo et al. (2021); “Perceptions of Learners and Instructors towards Artificial Intelligence in Personalized Learning” of Al-Badi et al. (2022); and “Students’ voices on generative AI: perceptions, benefits, and challenges in higher education” of Chan & Hu (2023). It is worthy to note that specific instruments targeting the construct related to the use of AI for research were limited. The references reviewed by the researchers’ provided insights in generating the constructs, awareness of AI Applications, Use of AI for Research, and Implications of AI for Research and Education.

A series of statements were formulated for each of the constructs: Awareness of Artificial Intelligence, Use of AI for research, and Implications of AI for research and education. To assess the awareness of university students regarding the use of Artificial Intelligence (AI) in research, questions related to their familiarity with AI terminology, their recognition of AI tools, and their understanding of AI’s roles in research were constructed. To explore how university students use AI for

research, questions about how they have incorporated AI tools into their research processes and the impact of AI on different stages of their research workflows were formulated. To understand the implications of AI for research and education, a series of questions were crafted. These statements sought to unravel students' perceptions of how AI influenced the research and writing processes. The instrument consisted of 90 items on a 7 Likert scale varying from 1-Strongly Disagree to 7-Strongly Agree.

Phase II: Content Validation

Two (2) experts from the University of the Visayas and one (1) from the Philippine Science High School with experience in the field of educational research and well versed in the mechanics of instrument design and item development and two (2) experts from the Sultan Kudarat State University with expertise in information science and technology and a wealth of knowledge/experience with the construct of measurement were selected to validate the contents of the questionnaire. They were selected to give their professional judgment about the semantics and content of the scale using the Content Validity Approach (CVI) on a four-point scale that comprises four categories adopted from Elangovan & Sundaravel (2021):

1. Non-equivalent item: The item lacks equivalence and requires significant revision.
2. Extensive revision needed: The item shows potential but necessitates extensive refinement to ensure equivalence.
3. Minor adjustments required: The item is generally equivalent but requires minor modifications.
4. Totally equivalent item: The item is completely equivalent in its current form.

CVR (content validity ratio)= (agreed item)/(number of expert)

Universal Agreement= score of 1 is assigned to the item that achieved 100% experts in agreement

Phase III: Internal Consistency Assessment

The validated instrument was pre-tested on twenty 4th year students of Sultan Kudarat State University taking up Bachelor of Science in Industrial Technology.

The reliability of the validated instrument was assessed using Cronbach's Alpha (α). It is utilized by researchers to gauge the interconnection between items of an instrument as well as the regularity of the tool in measuring variables (Mat Nawi et al., 2020).

Statistical analysis

Reliability analysis using Cronbach's Alpha and Content Validity were carried out in R Console (version 4.1.1, released in 2021) and Microsoft Excel, respectively.

Ethical Considerations

In the conduct of this study, respondents were informed of its purpose and significance as well as provided with consent forms prior to their participation. No identifying information was asked from them thus, they participated anonymously and voluntarily. The data collected from their responses was handled confidentially.

Defining the Focus and Item Generation

The researchers developed the initial questionnaire with 90 items following a review of the literature, divided into three (3) constructs: Awareness of the Artificial Intelligence, Use of AI for research, and Implications of AI for research and education. Each construct is composed of thirty (30) items.

III. RESULTS AND DISCUSSION

This part discusses the results of the study on the development and validation of instrument in assessing the perception of university students of the use of AI in research. A total of five (5) experts participated in the content validity and twenty (20) students participated in the reliability assessment.

Content Validation

Content validation is essential in the development of instrument to determine the validity of the tool prior to the distribution in the field. The result of content validation in terms of awareness of AI applications, use of AI in research, and implication of AI in research an education is presented in Table 1.

Table 1. RESULTS OF THE CONTENT VALIDATION BY FIVE

Constructs and Items		CVR	CVI/UA	Decision
Awareness of AI Applications				
1	I am familiar with the term “Artificial Intelligence (AI)”.	1	1	Retained
2	I am well aware of how different AI tools are used or navigated.	0.8	0	Eliminated
3	I encounter AI technologies in my research activities.	1	1	Retained
4	I have used AI technologies in my research activities.	0.6	0	Eliminated
5	I used more than one AI tool when doing research.	0.6	0	Eliminated
6	I understand that some AI tools offer limited services unless I subscribe to them.	1	1	Retained
7	AI tools have user-friendly interfaces.	0.8	0	Eliminated
8	AI tools are easy to navigate.	0.8	0	Eliminated
9	I am aware that AI tools execute tasks effectively.	1	1	Retained
10	I am aware that AI tools simplify complex analytical processes.	1	1	Retained
11	I am aware that AI tools are readily accessible through online platforms.	1	1	Retained
12	AI tools are readily accessible in the library.	0.6	0	Eliminated
13	AI tools are readily accessible in computer laboratories.	0.8	0	Eliminated
14	AI-related workshops are readily available.	0.8	0	Eliminated
15	I can easily find online tutorials and guides to learn about AI for research.	1	1	Retained
16	I am aware that AI involves the use of technology to simulate human-like intelligence.	1	1	Retained
17	I am aware that AI is used in literature search tasks.	1	1	Retained
18	I am aware that AI is used in problem-solving tasks.	1	1	Retained
19	I am aware that AI is used in data analysis tasks.	1	1	Retained
20	I am aware that AI can learn and improve over time through data-driven processes.	1	1	Retained
21	I have a basic understanding of how machine learning algorithms work.	0.8	0	Eliminated
22	I am aware of the debates around the ethical implications of AI technology.	1	1	Retained
23	I am aware of the rules or guidelines on the responsible use of AI technologies.	1	1	Retained
24	I am aware that the information provided by AI must be verified by reliable sources.	1	1	Retained
25	I am aware that some AI tools are detected by plagiarism checkers.	1	1	Retained
26	I am aware that one needs to have an account in order to make use of the services offered by AI tools.	1	1	Retained
27	I am aware that the answers that I get from AI tools may be outdated and limited.	0.8	0	Eliminated
28	I am aware some journal publications allow the use of AI tools in research studies.	1	1	Retained
29	I understand that if I use AI tools in my research paper, I have to cite them.	0.8	0	Eliminated
30	I am aware that I can ask AI tools to improve my overall research paper.	1	1	Retained

Use of AI for Research		CVR	CVI/UA	Decision
1	I seek advice from AI tools in formulating my research questions.	1	1	Retained
2	I used AI tools to help me refine my ideas before I wrote them in my research papers.	0.8	0	Eliminated
3	I gained insights from AI tools regarding literature or studies that may be related to my research study.	0.8	0	Eliminated
4	I utilized various AI tools to paraphrase my sentences better in my research paper.	0.8	0	Eliminated
5	I made use of AI tools to check the grammar, spelling, and mechanics of my writing in research.	0.8	0	Eliminated
6	I asked AI if my sentences and paragraphs were well-constructed and connected to my research paper.	0.8	0	Eliminated
7	I confirmed with AI if the methodology I used was sound and appropriate for my study.	0.8	0	Eliminated
8	I verified with AI my analysis of the findings of my study.	0.8	0	Eliminated
9	I consulted AI regarding my study's conclusion.	0.8	0	Eliminated
10	I asked AI for possible recommendations based on the results of my study.	0.8	0	Eliminated
11	I used AI to check my entire manuscript before submitting it.	0.8	0	Eliminated
12	I utilized AI to assist in literature reviews.	0.8	0	Eliminated
13	I utilize AI to gather information quickly.	1	1	Retained
14	I employ AI to identify trends.	1	1	Eliminated
15	I have employed AI to analyze data.	0.8	0	Eliminated
16	I have used AI in generating visualizations that effectively communicate research results.	0.8	0	Eliminated
17	I use AI to further give alternative explanations pertaining to the findings and results of my study.	1	1	Retained
18	I used AI to enhance the interpretation of the findings of my study.	0.8	0	Eliminated
19	I utilize AI tools regarding the interpretation of the theoretical framework of my study.	1	1	Retained
20	I used AI in thematic analysis.	0.8	0	Eliminated
21	I used AI in qualitative analysis.	0.8	0	Eliminated
22	I used AI to generate the proper format for the references in my study.	0.8	0	Eliminated
23	I utilized AI tools for my intext citations.	0.8	0	Eliminated
24	I utilized AI tools to generate graphs and tables for my study.	0.8	0	Eliminated
25	I used AI tools to refine the interpretations of the graphs and tables in my study.	0.8	0	Eliminated
26	I used AI tools to check relevant theories for my research study	0.8	0	Eliminated
27	I used AI tools to act as a reviewer of my research paper before submitting it.	0.8	0	Eliminated
28	I used AI tools to provide solutions based on my professor's suggestions to comply.	0.8	0	Eliminated
29	I asked AI tools if my manuscript is acceptable for publication.	0.8	0	Eliminated
30	I use AI tools to give me guidance on how to defend my research study.	1	1	Retained

Implications of AI for Research and Education		CVR	CVI/UA	Decision
1	The university has provided rules or guidelines on the responsible use of AI technologies.	0.8	0	Eliminated
2	AI technology helped me improve my academic writing.	0.8	0	Eliminated
3	AI is an invaluable addition to the field of academic research.	0.8	0	Eliminated
4	I believe that AI improves my understanding of complex concepts.	1	1	Retained
5	I believe that AI increases my motivation to learn.	1	1	Retained
6	AI helped me achieve higher grades in my studies.	0.8	0	Eliminated
7	I believe that AI enhances my critical thinking and problem solving skills.	1	1	Retained
8	I believe that AI offers a range of ideas to improve my research paper.	1	1	Retained
9	I believe that AI provides personalized learning experiences tailored to my needs.	1	1	Retained
10	I believe that AI increases my engagement in conducting research studies.	1	1	Retained
11	I believe that AI enables me to explore new research topics.	1	1	Retained
12	I believe that AI facilitates development of novel research methodologies.	1	1	Retained
13	I believe that AI aids me in discovering patterns and trends.	1	1	Retained
14	AI provided reliable answers to my research questions.	0.8	0	Eliminated
15	I believe that AI supplements my current understanding of research in education.	1	1	Retained
16	I believe that AI improves my efficiency of the research process.	1	1	Retained
17	I believe that AI improves my accuracy of the research process.	1	1	Retained
18	I believe that AI can potentially replace humans in the future.	1	1	Retained
19	I believe that AI equips me with valuable analytical skills.	1	1	Retained
20	AI contributes to accurate statistical results in my research.	0.8	0	Eliminated
21	AI helps me streamline my research activities, saving time and effort.	0.8	0	Eliminated
22	Integrating AI can equip students with valuable skills for the evolving job market.	0.8	0	Eliminated
23	AI has the potential to open new avenues for research collaborations.	0.8	0	Eliminated
24	AI gave me new insights in preparing a sound research paper.	0.8	0	Eliminated
25	AI offered me insightful ways on how to better paraphrase other journals' ideas.	0.8	0	Eliminated
26	AI inspired me to better analyze the results of my study.	0.8	0	Eliminated
27	I believe that AI enlightens me about its limitations as a tool for conducting research.	1	1	Retained
28	AI taught me how to reference my sources properly.	0.8	0	Eliminated
29	I believe that AI enables me to appropriately link my ideas logically.	1	1	Retained
30	AI provided an avenue for me to train my skills as a researcher.	0.8	1	Eliminated

The expert panel members evaluated the 90 items based on the four-point scale. Then, CVI for each item was calculated. In this round, the responses of the experts were converted as 1 (relevance scale of 3 or 4) or 0 (relevance scale of 1 or 2). In this stage, 11, 24, and 14 items with a content validity ratio (CVR) of less than 1 were eliminated for constructs 1, 2, and 3, respectively. The remaining items were revised to satisfy the recommendations of the experts in terms of the consistency of statements' verb tenses as well as the points of view utilized. The acceptable CVI value is 1 for three to five experts (Polit et al., 2007; Polit & Beck, 2006).

Internal Consistency

Table 2 shows that the reliability of the three constructs is greater than 0.90, indicating that the reliability is acceptable. This implies that all items demonstrated a valid internal consistency. Cronbach’s α between 0.8 to 1 shows good reliability, between 0.6 to 0.79 indicates the reliability is acceptable, and less than 0.6 indicates poor reliability (Taber, 2018).

Table 2. INTERNAL CONSISTENCY OF THE INSTRUMENT

Constructs and Items	Cronbach's Alpha	Mean Score
Awareness of AI Applications	0.95	
I am familiar with the term “Artificial Intelligence (AI)”.		5.9
I encounter AI technologies in my research activities.		5.45
I understand that some AI tools offer limited services unless I subscribe to them.		5.6
I am aware that AI tools execute tasks effectively.		5.5
I am aware that AI tools simplify complex analytical processes.		5.7
I am aware that AI tools are readily accessible through online platforms.		5.85
I can easily find online tutorials and guides to learn about AI for research.		5.65
I am aware that AI involves the use of technology to simulate human-like intelligence.		6.1
I am aware that AI is used in literature search tasks.		5.7
I am aware that AI is used in problem-solving tasks.		5.7
I am aware that AI is used in data analysis tasks.		5.65
I am aware that AI can learn and improve over time through data-driven processes.		6.05
I am aware of the debates around the ethical implications of AI technology.		5.65
I am aware of the rules or guidelines on the responsible use of AI technologies.		5.65
I am aware that the information provided by AI must be verified by reliable sources.		5.6
I am aware that some AI tools are detected by plagiarism checkers.		5.65
I am aware that one needs to have an account in order to make use of the services offered by AI tools.		5.7
I am aware some journal publications allow the use of AI tools in research studies.		5.65
I am aware that I can ask AI tools to improve my overall research paper.		5.65
Use of AI for Research	0.93	
I seek advice from AI tools in formulating my research questions.		5.25
I utilize AI to gather information quickly.		5.5
I employ AI to identify trends.		5.7
I use AI to further give alternative explanations pertaining to the findings and results of my study.		5.6
I utilize AI tools regarding the interpretation of the theoretical framework of my study.		5.5
I use AI tools to give me guidance on how to defend my research study.		5.4
Implications of AI for Research and Education	0.98	
I believe that AI improves my understanding of complex concepts.		5.65
I believe that AI increases my motivation to learn.		5.65
I believe that AI enhances my critical thinking and problem-solving skills.		5.55
I believe that AI offers a range of ideas to improve my research paper.		5.6

I believe that AI provides personalized learning experiences tailored to my needs.	5.65
I believe that AI increases my engagement in conducting research studies.	5.7
I believe that AI enables me to explore new research topics.	5.75
I believe that AI facilitates development of novel research methodologies.	5.55
I believe that AI aids me in discovering patterns and trends.	5.5
I believe that AI supplements my current understanding of research in education.	5.5
I believe that AI improves my efficiency of the research process.	5.6
I believe that AI improves my accuracy of the research process.	5.8
I believe that AI can potentially replace humans in the future.	5.6
I believe that AI equips me with valuable analytical skills.	5.65
I believe that AI enlightens me about its limitations as a tool for conducting research.	5.65
I believe that AI enables me to appropriately link my ideas logically.	5.65

The current study aimed to create a reliable and valid tool for evaluating university students' attitudes towards the utilization of artificial intelligence (AI) in research endeavors. This study followed a three-phase methodology, involving instrument development through an extensive review of existing literature and subsequent assessment of psychometric properties, including content validity, and internal consistency.

Previous studies on understanding university students' perceptions of artificial intelligence (AI) have utilized various approaches. Keleş & Aydın (2021) employed the Independent Word Association Test to gauge students' understanding of AI's concept, analyzing the results through content analysis. Al-Badi et al. (2022) delved into the perceptions of both learners and instructors towards AI in personalized learning. Zhang & Aslan, (2021) revealed that AI has been incorporated in different subject areas and reiterated its potential in the educational arena among various countries. Chan & Hu (2023) focused on university students' perspectives on generative AI (GenAI) technologies like ChatGPT in higher education.

Recent developments in Artificial Intelligence (AI) have generated great expectations for the future impact of AI in education and learning (AIED). Holmes & Tuomi (2022) on his journal stated that often these expectations have been based on misunderstanding current technical possibilities, lack of knowledge about state-of-the-art AI in education, and exceedingly narrow views on the functions of education in society. They have developed a typology of AIED systems and describe different ways of using AI in education and learning, show how these are grounded in different ways of using AI in education is or could be, and discuss some potential roadblocks on the AIED highway.

With its current developments, artificial intelligence (AI) has started to influence how teachers teach and how students learn, including the ones in English as a Foreign Language (EFL) classrooms. However, there have been debates on whether AI could be beneficial to students' learning or not. Toar et al. (2022) investigated how students perceive the use of AI in their learning.

IV. CONCLUSION

The results showed that the students had positive perceptions towards the use of AI applications. The students enjoyed the learning, and the AI applications helped them in their writing. They reported that the AI used could help them understand the theoretical concepts, assist them during the writing process, and help them learn the grammar and vocabulary items in their writing.

Relative to the use of AI in research activities, Chubb et al. (2022) recognized the intensity of AI's contribution to the field of research. However, their study reiterated that launching AI into the realm of research endeavors must ensure that all stakeholders involved are cognizant of its responsible use and potential to provide more meaningful research results. For instance, in the educational landscape, academic institutions must clearly establish their philosophical and practical stances regarding the incorporation of AI in doing research tasks. This means that there must be a consensus among stakeholders involved to avoid misunderstanding its use and scope. The impetus for AI's significant contribution to research has been discussed by many recent studies. Integrating AI in the production of research pursuits fosters innumerable benefits such as minimizing human errors in terms of language conventions or data interpretation or the provision of alternative perspectives in analyzing research information which could potentially help produce a more valid and reliable results (Burger et al., 2023).

V. RECOMMENDATION

The present study examined aspects such as familiarity, willingness to engage, potential benefits and challenges, and effective integration. Despite these inquiries focusing on perceptions and inclinations, there is a noticeable absence of studies that delve into how students encounter AI and how it has a practical impact on research, particularly in Philippine Universities. The strength of this study lies in its high CVI (1.0) and Cronbach alpha greater than 0.90, suggesting that the instrument developed accurately and reliably assesses university students' perceptions on the use of artificial intelligence in research. Thus, it is recommended that utilization of the developed tool to assess the perceptions of university students in AI in research will be used.

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