Exploring the Role of Instructors' Confidence and Attitudes Towards Change in the Acceptance of ChatGPT as the Future of Teaching and Learning

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Abstract: In the landscape of contemporary education, the integration of AI-tools such as ChatGPT holds the potential to reshape traditional teaching-learning paradigms. The emergence of these AI places new demands on instructors, to ensure its effective implementation in Higher Learning Institutions (HEIs). This study investigates the extent of confidence that influences ChatGPT utilization and its acceptance in education. A descriptive-correlation design was employed comprising 260-randomly selected instructors from HEIs in Klang- Valley.The findings revealed that approximately 80%(n=208) of the respondents agreed that ChatGPT is the future of teaching and learning, however, they are not adequately confident in using it in their practices.The findings also show a significant positive relationship(r=.640) between instructors' confidence levels and ChatGPT integration, with confidence serving as a significant predictor of acceptance of perceived benefits. Additionally, instructors' confidence in using ChatGPT predicted positive attitudes towards change in educational settings. These results highlight the central role of instructors' confidence in fostering the adoption and integration of AI-driven tools like ChatGPT in their practices. It emphasises the importance of providing training programs to enhance instructors' confidence in how AI concepts, tools, and applications can cultivate student-driven learning and its implications as it relates to ethics and academic integrity.

Keywords: AI Tool, Attitude, Benefits, ChatGPT, Confidence

1. Introduction

The introduction of artificial intelligence (AI) tools and systems at the current time has rapidly transformed the education landscape. There are many tools such as ChatGPT, Claude, Google's Gemini (previously known as Bard), Jenni etc that are revolutionizing this education settings. However, among these AI-powered aids, ChatGPT takes an innovative lead and sets an example for interactive and customised educational outcomes (Dwivedi, 2023; Tung, 2023). ChatGPT is based on artificial intelligence-driven natural language processing algorithms supporting interactive human-like conversations, creating unique opportunities for engagement, enrichment, and empowerment (Baidoo & Owusu, 2023; Frąckiewicz).

AI-driven tools enhance the learning experience by providing personalised, accessible, and engaging student content (Baidoo & Owusu, 2023; Frąckiewicz). The intersection of AI and education is not just a future possibility; it is imminent. The instructor's role and confidence in deploying these AI technologies, such as ChatGPT, are essential as we progress towards the future of teaching at educational institutions. As these AI technologies evolve exponentially, their integration is beginning to seep into teaching and learning practices. The first question is whether the instructors are confident using and integrating it into their practices.

Instructors are the driving force toward educational change, and to prepare students for their world of work tomorrow, instructors must transform their learning today. In addition to driving educational innovation, instructors facilitate the learning experience, navigate students through course complexity and direct the course of knowledge dissemination. According to Ertmer et al., (2012), instructors' confidence in leveraging AI tools reflects their proficiency and belief in the transformative potential of technology-enhanced learning experiences.

Confidence is a belief in oneself with the conviction that one has the knowledge and ability to succeed. It is a requirement to make it work and a prerequisite to integrate effectively. ChatGPT allows instructors to enhance their pedagogical practices, such as engaging students more effectively, providing a more individual learning experience and gathering instant feedback (Baidoo & Owusu, 2023; Frąckiewicz, 2023). This confidence is gained when instructors value the benefits and recognise AI's role in teaching and learning. Studies have shown that instructors' competence in information technology is a critical factor in using ICT effectively in the classroom (Wang et al., 2023; Hershkovitz et al., 2021). This necessitates that this study investigates instructors' confidence towards AI.

Another variable of interest is the attitude towards change. Educators generally have a positive attitude toward incorporating AI into their teaching practices (Kim& Kim, 2022; Al Darayseh, 2023). They see AI as a resource that can enhance the learning experience and support their teaching methods (Lipovec & Flogie, 2023). As discussed earlier, educators' views on using AI are shaped by factors like confidence in technology, ease of use, expected advantages, personal attitudes and intentions. However, there are concerns about how AI might impact instructors' roles in the classroom and the transparency of AI system decisions. Policymakers must consider instructors' feedback and provide them with training and support for integrating AI into education.

Just as calculators were once underestimated but later became common in mathematics classes, we can view ChatGPT as a modern-day calculator in our settings. Embracing this idea involves shifting our perspective, seeing ChatGPT not as a replacement for teaching methods but as a tool that enhances learning opportunities beyond what is possible with standard training programs. The proposition of acceptance begins with a shift in mindset, recognising ChatGPT not as a threat to traditional teaching methods but as a catalyst for progress and innovation (Nguyen, 2023; Birişçi & Kul, 2019; Zhang et al., 2023). Are instructors ready for this change?

In light of the transformative potential of ChatGPT and the vital role of instructors' confidence and attitudes towards change, this study explores the relationship between these factors and the acceptance of ChatGPT in educational settings. By examining into these variables, we aim to advance our understanding of technology integration in education and inspire a collective vision for the future of teaching and learning—one where ChatGPT is embraced as a cornerstone of educational excellence.

1.1 Aim and Purpose of the Study

This study investigates the impact of instructors' confidence in using ChatGPT on its integration into pedagogical practices. It explores the extent of confidence that influences ChatGPT utilisation and its acceptance in education. In this way, it helps us to understand the factors driving the adoption of AI tools and facilitates the effective integration of technology into teaching and learning. Thus, the research questions for this study are as follows:

1. What is the level of instructors' confidence in utilizing ChatGPT in teaching and learning practices?
2. Is there a significant relationship between instructors' confidence and the integration of ChatGPT in their educational practices?
3. To what extent does instructors' confidence in using ChatGPT predict acceptance of its perceived benefits in educational practices?

4. To what extent does instructors' confidence in using ChatGPT predict attitudes towards change in relation to the integration of ChatGPT into educational practices?

2. Literature Review

This study examines the relationship between instructors' confidence in using ChatGPT and the implementation of this tool in an educational context. It explores how users' self-confidence influences the integration and overall acceptance of ChatGPT in education. The following section details the variables involved in context with previous literature.

2.1 Role of AI on Education

The Higher Education Institutions (HEIs) education landscape has undergone a drastic transformation in the present time, especially with the rapid advancement of artificial intelligence (AI) generative tools. Some popular generative AI (GAI tools) which have grabbed headlines for their ability to produce diverse content in education including personalised learning and the practice of creativity are Chat Generative Pre-Trained Transformer (ChatGPT), Bard, Microsoft Bing, Claude, and Scribe to name a few (Lee et al., 2024). The rapid development of AI and natural language processing (NLP) technology has been a key component to the transformation of how education evolved today (Cardona, et al., 2023; Zhou, et al., 2024; Kelly, 2024). Among these innovations, ChatGPT, an advanced language model developed by OpenAI, has gained significant attention for its potential to revolutionise teaching and learning processes (Frąckiewicz, 2023; Cardona et al., 2023; Labadze, 2023), which is the focal of this study. The rapid growth of the usage of AI in HEIs is creating new challenges for instructors to ensure constructive integration in their practices.. Are these instructors ready?

2.2 Usage of ChatGPT

The usage of ChatGPT as an AI educational tool experienced rapid growth and widespread adoption. Its role in education, however, remains a topic of contention. According to research (Baidoo and Owusu, 2023; Frąckiewicz, 2023; Zhang et al., 2023), some view it as a tool to enhance pedagogical practices and reduce instructors' workload while others view it as a threat to integrity, opening the door to cheating and plagiarism.

Instructors' usage of ChatGPT can potentially transform teaching practices and enhance student engagement. Studies have shown that instructors utilise ChatGPT for various purposes, such as generating personalized interactions and providing immediate feedback (Frąckiewicz, 2023). By leveraging ChatGPT, instructors can access vast knowledge resources and facilitate problem-solving tasks in the classroom (Lo, 2023). The ability of ChatGPT to generate high-quality content supports teaching effectiveness, offering instructors valuable tools for delivering engaging and informative instruction (Cardona et al., 2023). Thus, the question to ponder is whether the instructors are confident in using this tool.

2.3 Instructors Confidence: The Key to AI Integration in Classrooms

In addition to knowledge, confidence and beliefs also impact the integration of technology. Instructors might have a great amount of knowledge but their abilities do not always translate to practical application of it. In fact, “what we know, the skills we possess, or what we have previously accomplished are not always good predictors of subsequent attainments because the confidence and beliefs we hold about our capabilities powerfully influence the ways we behave” (Pajares as quoted in Madewell and Shaughnessy, 2003, p. 381). While knowledge of technology is essential, research suggests that instructors' confidence plays a critical role in successfully integrating technology into teaching practices. Research on Technological Pedagogical and Content Knowledge (TPACK) emphasizes the integration of knowledge bases (pedagogy, technology, content) and their flexible use (Berliner, 2004; Lachner et al., 2016). Thus, this requires instructors to bridge the gap between their knowledge and effectively utilize technology for teaching

But there is another critical factor that research indicates matters: how motivated instructors themselves are. According to Backfisch et al. (2020), studies provide evidence that confidence rather than more advanced knowledge on the part of the user entails a crucial role in the efficient integration of practices. There is also evidence that when instructors perceive that a given technology is important, they are more apt to use their skills and knowledge to incorporate into their instruction (Backfisch et al., 2021). Well, this directly correlates to AI tools such as ChatGPT. If instructors are not confident in integrating this tool into their practices, then training is a prerequisite if we want to extract the most out of AI being a tool in the classroom.

2.4 Acceptance of ChatGPT: Perceptions and Confidence in AI-powered Learning

Perceived benefits are a key factor that consistently emerged in studies on the willingness of instructors to accept AI tools in education (Kelly et al., 2023; Lee et al., 2024). Instructors are likely to adopt new technologies if they believe they will lead to greater learning experiences, personalised instruction, or increased student engagement (Koehler & Mishra, 2005). This is consistent with the existing technology adoption theories like the Technology Acceptance Model (TAM), which explains that perceived usefulness and ease of use both significantly impact technology adoption (Davis, 1989).

In the context of ChatGPT, the added advantages of providing a personalised learning experience and assisting students in writing and critical thinking areas, for example, can be considered benefits that might influence instructors to use it more, using ChatGPT (Nguyen, 2023). In addition, one of the main criteria of teaching and learning practices relates to student engagement. ChatGPT's interactive features can contribute significantly to better student engagement. Firstly, it can be used to develop interactive learning experiences which may be created as game-based or scenario-driven experiences, building excitement and entertainment around learning (Javaid et al., 2023). Secondly, it can be used to answer students' questions in a conversational manner which may stimulate active learning on behalf of students (Menon, 2023). Thirdly, by providing students with personalised feedback that is specific and timely, students will stay engaged and motivated, while being more invested in their learning journey (Frąckiewicz, 2023). From the results gained from the collective studies about AI benefits as an adaptive learning platform, one issue is clearly defined. It demonstrates that educators value the potential benefits of these tools to cater to individual student needs, increasing their willingness and attitude to adopt them (Zhou et al., 2024).

The study aims to investigate the issue further and explore the relationship between instructors' confidence in using ChatGPT and the use of the technology in question, as well as the instructors' view of ChatGPT as a classroom tool. It is expected that the process of building a positive perception of ChatGPT's utility is a critical part of creating confidence among instructors. This, in turn, increases the likelihood of successful classroom implementation. Thus, by understanding how instructors perceive these benefits, we can develop approaches to promote positive acceptance and unlock the potential of this AI tool to transform teaching and learning practices.

3. Methodology

This study investigates the role of instructors' confidence in utilizing ChatGPT in their teaching and learning practices and its impact on the integration of ChatGPT into educational settings.

3.1 Design

This study utilises a cross-sectional descriptive-correlation design, allowing the researchers to collect data from many respondents at a single point in time. It enables the description of the study variables, namely confidence, benefits and attitude, in detail and then examining the relationship among them without suggesting causality. Furthermore, it establishes preliminary evidence in planning future advanced studies related to AI usage.

3.2 Population and Samples

This study involved a total of 260 randomly selected instructors from higher education institutions in the Klang Valley area. The demographic profile of these respondents is shown in Table 2 (Findings section of this paper).

3.3 Instrumentation

A purely quantitative approach was used for the data collection process involving a questionnaire with the selected variables of the study. This questionnaire was adapted from Nguyen (2023), Baidoo-Anu et al., (2023) and Kamoun (2024). The final version of the questionnaire comprised 17 items with each targeting specific domains namely Demography, Confidence Towards the Usage of ChatGPT (6 items), Acceptance of ChatGPT in terms of Perceived benefits (5 items) and Attitudes toward change regarding the use of ChatGPT (6 items). All the items, except demographic information, were answered on a 10-point scale: 1 = Strongly Disagree to 10 = Strongly Agree.

3.4 Validity and Reliability

The content validity of the questionnaire was established by a panel of three experts from a public university. Then, a pilot test was performed to determine the reliability (Cronbach Alpha) of the items which yielded a coefficient of 0.942 (see Table 1). The quantitative analysis was analysed using both descriptive and inferential statistics using SPSS version 23.

Table 1

Reliability of Instrument using Cronbach Alpha

Dimension	N	r
Confidence Towards the Usage of ChatGPT	6	0.947
Acceptance of ChatGPT in terms of Perceived benefits.	5	0.928
Attitudes toward change regarding the use of ChatGPT	6	0.949
Overall	17	0.942

4. Findings of the Study

This section details the findings of the study based on the research questions posed.

4.1 Demographic Profile of Respondents

Table 2 illustrates the demographic profiling of the respondents. A total of 260 respondents were involved, with a composition of 95 male respondents (36.5%) and 165 female respondents (63.5%). The majority of these respondents were in the teaching experience category between 1 to 5 years (27.3%), followed by 25.0% (65) between 6 to 10 years, and 35.8% (12.7% and 18.1%) with 11 years and more. In terms of academic fields, 40.0% (104) of the respondents were from the Science field as compared to 60% (156) from the Science field. The composition of educational qualifications of the respondents was 30.4% (79) with a doctoral degree and 69.6%% (181) with master's degree. In terms of technology proficiency, more than half depicted themselves as moderately proficient (62.3%) compared to 32.3% (84) and 5.4% (14) as advanced and novice, respectively.

Table 2

Demographic Profiling of Respondents

	Frequency	Percentage
Gender		
Male	95	36.5
Female	165	63.5
Teaching Experience		
<1 year	31	11.9
1-5 years	71	27.3
6-10 years	65	25.0
11-15 years	46	17.7
>15 years	47	18.1
Academic Field		
Science	104	40.0
Non-Science	156	60.0
Educational Qualifications		
Doctoral Degree	79	30.4
Master's Degree	181	69.6
Technological Proficiency		
Novice	14	5.4
Intermediate	162	62.3
Advanced	84	32.3

4.2 Do you agree that ChatGPT is the future of Teaching & Learning?

Table 3 depicts the view of respondents involved in this study on the notion of ChatGPT as the future of teaching and learning.

Table 3

ChatGPT as the Future of Teaching and Learning

Acceptance	Frequency	Percentage
Yes	208	80.0
No	52	20.0
Total	260	100.0

The data in Table 3 depicts that 80% (n=208) of the respondents agree that ChatGPT is the future of teaching and learning as compared to 20% (n=52) stating otherwise.

4.3 Instructor's Confidence Towards the Usage of ChatGPT

This section focuses on assessing instructors' confidence in their ability to use ChatGPT in their Teaching and Learning practices.
Research Questions: What is the level of instructor's confidence towards the usage of ChatGPT?

Table 4

Confidence Towards the Usage of ChatGPT

Confidence Towards the Usage of ChatGPT	N	Mean	SD
I feel confident in my ability to effectively use ChatGPT as a teaching aid.	260	6.20	2.35
I am comfortable troubleshooting and addressing issues that may arise when using ChatGPT.	260	6.19	2.27
I believe I can adapt and modify ChatGPT to suit different teaching contexts and subjects.	260	6.59	2.15
I have confidence in my ability to integrate ChatGPT seamlessly into my instructional practices.	260	6.32	2.27
I am confident in my knowledge of the limitations and potential risks associated with ChatGPT.	260	6.48	2.30
I believe my expertise as an instructor enhances my ability to utilize ChatGPT effectively.	260	6.72	2.23
Overall	260	6.42	2.01

Scale 1 to 10

The data in Table 4 shows that all the items depict a moderate score of confidence ranging from 6.19 (self-assurance in troubleshooting issues) to 6.72 (utilisation of ChatGPT). The overall score of 6.42 (SD=2.01) shows that respondents involved in this study are not adequately confident in using ChatGPT in their Teaching and Learning practices. The standard deviation of 2.01 shows a significant variability in the opinion among the respondents involved in the study.

The following singular item was asked for this study, supporting the notion of instructors' confidence about integrating it into their practices.

Table 5

Integration of ChatGPT

ChatGPT Integration	N	Mean	SD
How much would you rate the integration of ChatGPT in your Teaching and Learning?	260	6.46	1.92

Scale 1 to 10

The data in Table 5 shows a score of 6.46 (SD=1.92) depicting a notion of an average level of integration using ChatGPT. However, the standard deviation of 1.92 as in the previous table, similarly suggests a considerable variability in opinion among the respondents.

4.4 Relationship Between Instructors' Confidence and the Integration of ChatGPT in their Practices

Research question: Is there a significant relationship between instructors' confidence and the integration of ChatGPT in their practices?

A correlation analysis was used to analyse the relationship between instructors' confidence and the integration of ChatGPT in their practices.

Table 6

Correlation between Confidence and Integration of ChatGPT

		Confidence	Integration of ChatGPT
Confidence	Pearson Correlation	1	.640**
	Sig. (2-tailed)		.000
	N	260	260
Integration of ChatGPT	Pearson Correlation	.640**	1
	Sig. (2-tailed)	.000	
	N	260	260

**. Correlation is significant at the 0.01 level (2-tailed).

Table 6 shows a positive and moderately strong and significant relationship (r =.64, p<.01) between instructors' confidence in using ChatGPT and its integration into their practices. In other words, approximately 40.1% (r2 = 0.401) of instructors' integration of ChatGPT in their practices is explained by their confidence in using this tool and vice versa.

4.5 Acceptance of ChatGPT

This domain focuses on examining the level of acceptance and attitudes of instructors towards the integration of ChatGPT as a tool for future teaching and learning practices. It aims to understand the perceptions and beliefs of instructors regarding the potential benefits, adoption intentions, and attitudes toward the use of ChatGPT in educational settings.

4.5.1 Perceived Benefits

Table 7

Instructors perceived benefits of the use of ChatGPT in educational settings

Benefits	N	Mean	SD
Integrating ChatGPT in teaching and learning can enhance student engagement.	260	6.61	2.33
ChatGPT has the potential to facilitate personalized learning experiences for students.	260	6.88	1.99
ChatGPT can effectively address the diverse learning needs of students.	260	6.65	2.04
Incorporating ChatGPT in teaching can improve student understanding and knowledge retention.	260	6.63	2.19
ChatGPT can provide immediate and personalized feedback to students.	260	6.97	2.10
Overall	260	6.75	1.88

Scale 1 to 10

The data in Table 7 shows that across all the items, the mean scores are consistently above the midpoint of the scale ranging from 6.61 (enhanced engagement) to 6.97 (personalised feedback), suggesting a positive outlook toward the use of ChatGPT in educational settings. Overall, across all aspects examined, the mean rating is 6.75, indicating a generally positive perceived benefit towards the integration of ChatGPT in educational settings.

4.5.2 Attitudes Toward Change

In this domain, which focuses on attitudes towards change regarding the integration of ChatGPT in teaching and learning, the results suggest a generally positive outlook among instructors (refer to Table 8). These positive outlook scores range from 7.06 (belief in the transformative role of ChatGPT) to 8.00 (openness to adopting new teaching tools).

Table 8

Attitudes towards change regarding the integration of ChatGPT in teaching and learning

Attitude Towards Change	N	Mean	SD
I am generally open to adopting new teaching tools and approaches.	260	8.00	1.81
I believe that ChatGPT can play a significant role in transforming teaching and learning practices.	260	7.06	2.16
I am receptive to change and view it as an opportunity for growth and improvement	260	7.53	1.96
I see technology, including ChatGPT, as a valuable asset in the modern educational landscape.	260	7.53	1.97
I am willing to adapt my teaching methods to incorporate ChatGPT effectively	260	7.32	2.04
I believe that embracing new technologies like ChatGPT can enhance the learning experiences of students	260	7.51	1.98
Overall	260	7.49	1.78

Scale 1 to 10

Overall, the mean rating across all aspects is 7.49 (SD=1.78), indicating a moderately high level of positivity and receptiveness towards the integration of ChatGPT in teaching and learning practices. While there is some variability in opinions, as indicated by the standard deviations (SD=1.78), the overall trend suggests a favourable attitude towards embracing ChatGPT as a tool for educational enhancement.

4.6 Relationship between Instructor's Confidence and Perceived Benefits

This section investigates the relationship between instructors' confidence in utilizing ChatGPT in teaching practices and their perceived benefits associated with its integration. By examining how instructors' confidence influences their perceptions of ChatGPT's benefits, it aims to provide insights into the factors that shape educators' acceptance of AI-driven tools in educational settings.

Research Questions: Does confidence in using ChatGPT serve as a significant predictor of acceptance of its perceived benefits in educational contexts?

Simple linear regression analysis was conducted to evaluate the extent to which instructors' confidence in utilising ChatGPT in teaching practices could predict their acceptance of its perceived benefits in educational settings.

Table 9a

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.771[a]	.595	.594	1.19847

a. Predictors: (Constant), Confidence

Table 9b

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	544.638	1	544.638	379.190	.000[b]
	Residual	370.570	258	1.436		
	Total	915.209	259			

a. Dependent Variable: Acceptance Benefits
b. Predictors: (Constant), Confidence

Table 9c

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	2.125	.249		8.542	.000
	Confidence	.720	.037	.771	19.473	.000

a. Dependent Variable: Acceptance Benefits

The regression analysis revealed a significant relationship between instructors' confidence levels in utilizing ChatGPT in teaching practices and their acceptance of its perceived benefits. The model, with Instructor's Confidence as the predictor variable, accounted for approximately 59.5% of the variance in acceptance of ChatGPT based on perceived benefits ($R^2 = 0.595$) (Refer Table 9a). This relationship remained consistent even after adjusting for the number of predictors (Adjusted $R^2 = 0.594$). The statistically significant F-statistic ($F = 379.190$, $p < .001$) further supported the overall significance of the regression model (refer to Table 9b). Specifically, for every one-unit increase in Instructor's Confidence (refer to Table 9c), there was an estimated increase of 0.720 units in acceptance of ChatGPT based on perceived benefits ($\beta = 0.720$, $p < .001$). These findings show the importance of instructors' confidence in driving their acceptance of ChatGPT's perceived benefits in educational settings, highlighting its potential as a valuable tool for enhancing teaching and learning experiences.

4.7 Relationship between Instructor's Confidence and Attitudes towards Change

This research question investigates the relationship between instructors' confidence in utilizing ChatGPT in teaching practices and their attitudes towards change in educational settings. By examining how instructors' confidence levels influence their attitudes towards incorporating ChatGPT into teaching practices, it aims to shed light on the factors that shape educators' readiness to embrace technological innovations in education.

Research Question: Does instructors' confidence in utilising ChatGPT in teaching practices significantly predict their attitudes towards change regarding its incorporation into educational settings?

To test this research question, a simple regression was conducted, with instructors' confidence in utilising ChatGPT as the predictor, and their attitudes towards change regarding its incorporation into educational settings as the dependent variable.

Table 10a

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.712[a]	.507	.505	1.25047

a. Predictors: (Constant), Confidence

Table 10b

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	415.217	1	415.217	265.539	.000[b]
	Residual	403.428	258	1.564		
	Total	818.646	259			

a. Dependent Variable: Acceptance_attitude
b. Predictors: (Constant), Confidence

Table 10c

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.455	.260		13.311	.000
	Confidence	.629	.039	.712	16.295	.000

a. Dependent Variable: Acceptance_attitude

The regression examined the relationship between instructors' confidence levels in utilizing ChatGPT in teaching practices and their attitudes towards change regarding its incorporation into educational settings. The model (Refer to Table 10a), with the Instructor's Confidence as the predictor variable, accounted for approximately 50.7% of the variance in attitudes towards change ($R^2 = 0.507$), indicating a strong positive relationship between the two variables. This relationship remained consistent after adjusting for the number of predictors (Adjusted $R^2 = 0.505$). The statistically significant F-statistic as shown in Table 10b ($F = 265.539$, $p < .001$) confirmed the overall significance of the regression model. Specifically, for every one-unit increase in Instructor's Confidence (Refer Table 10c), there was an estimated increase of 0.629 units in attitudes towards change ($\beta = 0.629$, $p < .001$), underscoring the role of confidence as a significant predictor of positive attitudes towards embracing technological change in education

The regression analysis reveals a strong positive link between instructors' confidence in using ChatGPT and their openness to change in educational settings. Higher confidence correlates with a more favourable stance towards integrating technological innovations in education, emphasizing its predictive value for attitudes towards change.

5. Discussion

The results of this study add to the ongoing discussion about the uses and acceptance of AI in educational contexts, particularly among current and future instructors at higher institutions of Education. Firstly, only 80% (n=208) of the respondents agree that ChatGPT is the future of teaching and learning compared to 20% (n=52) stating otherwise. These findings were supported by the moderately low confidence level towards using ChatGPT among these respondents. This is an area of concern as the literature has surmised AI is the future of teaching and learning as it presents innovative opportunities to enrich and transform educational experiences (UNESCO, 2024). We strongly believe that Artificial Intelligence is here to stay and will only grow stronger in the future and those instructors who are not aligned with this will be left behind!

On the other hand, the respondents perceived moderately high on the benefits of ChatGPT application and integration in education settings. This aligns with earlier work showing the potential for AI technologies to stimulate students and help personalise the learning experience (Baidoo and Owusu, 2019; Frąckiewicz, 2019). The findings of the study also found a significant and relatively high

relationship (r=.64) between instructors' perceptions of the benefits of ChatGPT and their confidence, consequently establishing confidence as a significant predictor of acceptance. This is consistent with prior findings, which have highlighted users' self-confidence as a key driver of their adoption of technological innovations in education (Antonietti et al., 2022; Ertmer et al., 2012). The underpinning theory is that instructors who have more confidence may also feel more curious and are more likely to sail unchartered waters, i.e. to use ChatGPT to make lessons lively, give personalized attention, and provide instant feedback. This positive relationship between confidence and perceived benefits of ChatGPT depicts the beliefs in driving the successful integration of AI-driven tools like ChatGPT in teaching and learning practices.

The findings also highlighted a significant positive association (r= .540) between instructors' confidence and attitudes towards change when integrating ChatGPT into the classroom. These findings are in line with the results of earlier studies (e.g. Al Darayseh, 2023; Chocarro et al., 2021) where they examined the importance of attitudes towards change in adopting new educational technology. This finding fits the Functional Theory as popularised by Daniel Katz (1960). The propostion of the functional theory of attitude suggests that we humans embrace attitudes that best match with our needs. Hence, to change our attitude we must first identify what our needs are. Thus, to change instructors' attitudes toward AI integration, it is essential to identify and address these needs. Training programs should be designed meticulously to cater for the need to develop instructors' competence with AI tools.

6. Conclusion

This study examined the perceptions of instructors from HEIs towards AI tools such as ChatGPT, and its integration into their teaching-learning practices. Overall, the findings painted a positive response from the instructors of seeing the benefits of AI, such as ChatGPT, as an important tool to enhance student engagement, personalised learning experiences, and better understanding of subject matter knowledge. This positive outlook aligns with the growing emphasis on catering to individual student needs and the recognition of AI as a valuable tool in education.

However, building educator confidence is essential for this technology to be successfully integrated into classrooms. We must accept that most of these tools are rather new to instructors and lacking familiarity with AI-related knowledge is a major hindrance to AI education implementation. There is a necessity for instructors to attain technical knowledge and pedagogical technological knowledge to effectively use these AI-related applications to assist and improve their confidence in using them for their practices. Professional training and development programs are of utmost importance to achieve this purpose for effective implementation esepcialy in the conetx in ensuring their readiness. These AI education programs is very crucial as it leads us to understand how prepared the instructors are to teach using this powerful tool because the actual success of AI education is closely related to the users' confidence and readiness (Ayanwale et al., 2022). With meaningful programs, it helps educators feel empowered with a greater sense of control and also sets a precedent that AI is meant to be a supplement to their expertise rather than a substitute. In the end, meaningful training programs that close that gap and deal with those fears and anxiety can then lead to success and confidence in instructors (Fiorilli et al, 2020). This, in turn, will catalyse a smoother and more sustainable integration of AI tools like ChatGPT in the educational context.

Ultimately, the positive attitudes towards AI tools alongside well-designed training initiatives pave the way for a future where ChatGPT and similar tools can become valuable assets in creating engaging and effective learning environments for a diverse student population. Further research is warranted to explore the long-term impact of AI integration on educational outcomes and to refine training programs to ensure educators feel confident and competent in utilising these powerful tools.

7. Suggestions

The present paper looks mainly at the confidence level of instructors and their acceptance of Chatgpt among instructors utilising a quantitative approach. We propose to conduct a similar study using a qualitative approach. This qualitative approach will enable us to further probe into the "why" and "how" related to assessing instructors' confidence and attitude to change in adopting this AI in their practices. Secondly, a longitudinal study can also be carried out to closely track how the confidence

level of instructors changes over time. This will help identify key elements that changed instructors' confidence levels and how these changes impacted their acceptance level of ChatGPT. Besides that, research can also be carry out to assess the effectiveness of the various professional development programs provided by the policymakers to boost instructors confidence level and exposure to ChatGPT.

8. Co-Author Contribution

The authors affirmed that there is no conflict of interest in this article. Author 1 carried out the field work, prepared the literature review and overlook the whole writeup of the whole article. Author 2 helped in the field work, did the data entry and generating the preliminary analysis. He also assisted in reading the first draft and editing the language. Author 3 assisted in the field work, carried out the statistical analysis and interpretation of the results.

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