NELTA

https://doi.org/10.3126/nelta.v30i1.8781

Chatbots in Language Classrooms: A TAM Analysis on Teachers' Perspectives

Munshi Nazmus Sakib
Rukhsar Raiyan Modina

Abstract

After the emergence of ChatGPT, countries like Bangladesh have seen a dramatic rise in the integration of a wide array of chatbots in diverse academic and administrative activities at the tertiary level. Although a similar rise can be noted in the expanding body of research exploring students' utilization of these tools, research initiatives to unravel the teachers' experiences during this new age of AI integration mostly remain unexplored. Nevertheless, teachers remain one of the key figures in determining the acceptance and penetration of all technological tools in tertiary classrooms. Keeping the Technology Acceptance Model (TAM) in mind, the thematic analysis includes reflections of 16 tertiary-level teachers with an aim to investigate the perceptions developed during the mass utilization of these tools in the context. Interview transcripts indicate minimal difficulty experienced by research participants while using these chatbots for different administrative and academic activities. They also identify productivity, accessibility, and a reduction of cognitive overload as the rationale behind them leaning toward these possible integration. These findings advocate a revision of the existing institutional provisions that do very little in paving the way for technology integration in Bangladeshi classrooms.

Keywords: *chatbots, experiences, acceptance, technology, integrations*

Introduction

With the advent of large language models (LLMs) and Natural Language Processing (NLP), Bangladesh, much like its neighbors, has been integrating these technological tools to various extents. While chatbots like ChatGPT have been assisting virtual teaching and test preparations (Ashikullah, 2024; Naher et al., 2023), other tools such as Microsoft Bard and Quillbot are becoming increasingly popular among students (Wakif et al., 2024). This popularity among the students can be connected to the perceived benefits of enhanced learning experiences (Adiguzel et al., 2023). That being said, there has been no available work on how some of the other major stakeholders, like the teachers and administrators, have been perceiving the integration across

different institutions. Nevertheless, teachers' confidence in their abilities to harness technology translates into their willingness to integrate such tools into their classrooms (Stošić & Stošić, 2015; Abel et al., 2022). Teachers' attitudes toward technology are also deemed crucial in determining their commitment to accepting it in the classroom (Khlaif, 2018; Sugar et al., 2004; Li et al., 2016). Therefore, the future of these technologies relies heavily on the teachers' perceptions toward these chatbots in diverse pedagogical practices. Therefore, the study aims to explore two key research questions:

Research Question 1 How do tertiary teachers perceive the ease of use while utilizing chatbots?

Research Question 2 How do tertiary teachers perceive the usability of chatbots they have been using?

Literature Review

In recent months, Bangladesh has seen a drastic rise in the integration of chatbots in diverse tertiary-level institutions. For instance, a recent study on the students at Dhaka International University reveals that these learners are well familiar with the different AI tools in academic settings (Pande et al., 2024). While these integrations indicate several benefits for the students, such as an increase in interactive learning experiences (Sutrisman et al., 2024) and productivity (Zhou, 2024), there is still a gap in how the teachers in developing nations have been perceiving this rapid inclusion of chatbots in their classrooms.

Teachers' Experience while Using AI Tools

Studies conducted outside Bangladesh have mostly pointed out teachers' acceptance of the advantages of using AI tools for academic purposes. EFL teachers in Indonesia note that tools like QuillBot and ChatGPT enhanced students' quality of writing, specifically in their ability to generate and organize content (Widiati et al., 2023). These tools have also been perceived to be beneficial for motivated learners eager to enhance their experience with the support of their teachers (Chieu et al., 2023). Platforms like Chatbots have also promised the transformation of traditional teaching-learning frameworks by offering innovative ways of student engagement (Adiguzel, 2023). However, there has been little to no investigation focused entirely on key variables like ease of use and usability, which could ensure the sustainability of such practices.

Teachers' Perceived Challenges

Teachers from Hong Kong express concerns that feedback generated from different language models might be too generic to help students receive effective learning (Cheng, 2024). Similar trends can be seen in Spain, where only 25% of the teachers integrated different AI platforms into their pedagogical practices while citing a gap in their understanding of its potential (Galindo-Domínguez et al., 2023). Even in contexts like Estonia, where there is recognition

of the potential of these tools, the teachers demonstrate limited knowledge (Chounta, 2021). Furthermore, teachers also report issues with misconceptions and fears about privacy and job security (Nazaretsky et al., 2022; Crompton et al., 2022). Despite this being a major barrier to technology adoption, any study on the teachers' concerns regarding LLMs at the tertiary level of Bangladesh remains missing from the research archives.

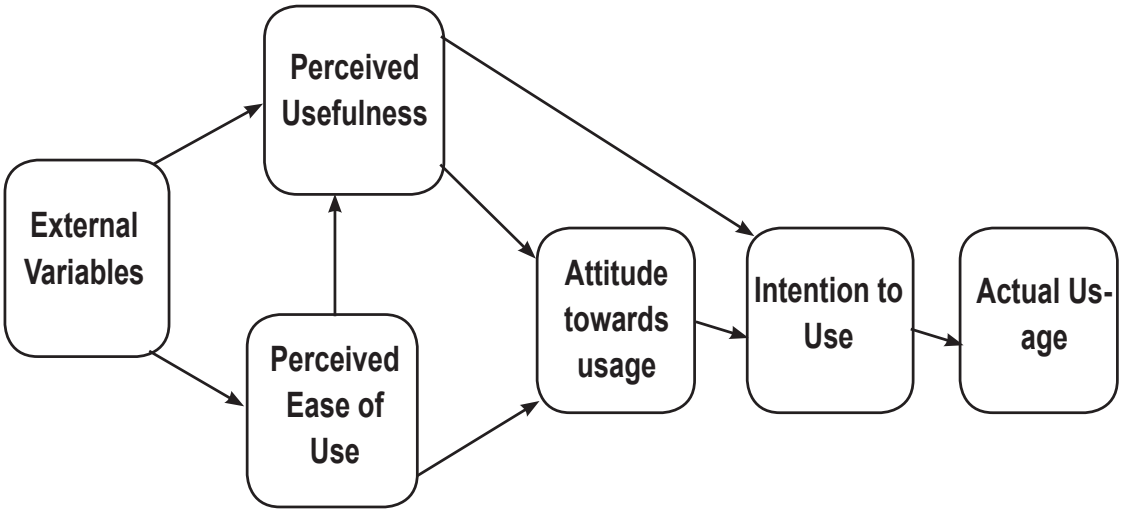
Bangladeshi Tertiary Teachers' Ability to Use Technology

Most Bangladeshi teachers do not demonstrate much confidence in their ability to harness technology. Seraj et al. (2021), while investigating the potential of mobile phones in language teaching, identify the lack of teacher confidence among different limitations, such as charging and small screens. Though a few teachers from universities harbor a comparatively positive attitude toward the inclusion of EFL websites in classrooms, the majority demonstrate logistical limitations and systematic complications (Bristi, 2018). There have been contradictions as well. For instance, a small-scale qualitative study run among some language teachers by Rafique (2022) notes Bangladeshi university teachers' ability to use technology well. Regardless, there has been no noteworthy investigation on their ability to use different platforms relying on NLP to assist in their academic and administrative capacities.

Technology Acceptance Model (TAM)

Fred Davis' (1989) Technology Acceptance Model (TAM) is a widely accepted theoretical framework used to comprehend the users' acceptance and use of information technology (Lee et al., 2003). The two key ideas that construct the different domains of the model include 1. perceived ease of use and 2. perceived usefulness (Davis, 1989). The perceived ease of use indicates a person's belief in the lack of requirement for effort while using a technology, and the impact of this factor is sometimes found to be less than perceived usefulness (Chau, 1996). Perceived usefulness refers to the belief of a person in a system's potential to enhance job performance (Ma & Liu, 2004). TAM has been applied in a vast number of educational contexts to assess the acceptance of various learning technologies and, in some cases, has been modified to different versions such as TAM++ to suit different contexts (Granić & Marangunic, 2019). There have been extensions to the model in the form of UTAUT (The Unified Theory of Acceptance and Use of Technology) (Venkatesh et al., 2003) and UTAUT2 (Venkatesh et al., 2012) by integrating additional variables such as hedonic motivation, habit and price value to existing variables such as performance expectancy, effort expectancy and social influence. However, the revised models have very little relevance in investigating teachers' motivation at the tertiary level and are more applicable toward predicting consumer behavior.

Figure 1.



The original TAM model (Davis, 1989)

Methodology

The study incorporates a qualitative methodology simply because of its ability to decipher participants' beliefs and experiences (Őhman, 2005). The study aims to explore the perceptions of tertiary teachers in Bangladesh while using different chatbots in their classroom practices. Qualitative methodology should help the exploration because of its ability to explore local perceptions and reveal subjective logic motivating behavior (Wolff et al., 2019).

Research Participants and Sites

The study includes semi-structured interview data from 16 teachers at the tertiary level. The teachers are from 5 different universities located in Dhaka. A mixture of purposive and snowball sampling techniques has been employed while selecting these teachers. The purposive sampling technique has a reputation for improving the overall rigor and credibility of studies because of its ability to match the sample to research aims and objectives (Campbell et al., 2020). Purposive sampling is effective in such contexts because of its ability to ensure the reliability and competence of the informant (Tongco, 2007). Snowball sampling, on the other hand, can generate diverse samples (Kirchherr & Charles, 2018) and reveal hidden populations (Dragan & Isac-Maniu, 2013). Inclusion of participants had been stopped at 16, once the information diversity came down to zero.

Table 1

Demographic Characteristics of Respondents

Teacher (different names have been used to maintain anonymity)	Age	Gender	Department
Rakesh	28	Male	English
Trevor	31	Male	Computer Science and Engineering
Roy	30	Female	Development Studies
Linda	25	Female	English
Garcy	24	Female	Nutrition and Food Engineering
Ricky	32	Male	Sociology
Taher	27	Male	Pharmacy
Porter	30	Male	English
Gomes	29	Female	English
Bakul	26	Male	Pharmacy
Abraham	28	Male	Computer Science and Engineering
Patricia	33	Female	Sociology
Ivy	35	Female	Civil Engineering
Karen	25	Female	Civil Engineering
Joey	31	Male	English
Sean	28	Male	English
Research Tool			

The study utilized an open-ended questionnaire developed while keeping TAM Analysis in mind to conduct semi-structured interviews with the research participants. Interviews are great tools to raise new issues and deepen comprehension while clarifying answers to questions. They are also regarded as being effective for learning about people's motivations, attitudes, beliefs, and impacts of policies or events on their lives in a conversational style (Adams, 2015). Each interview lasted around 23 minutes on average. The participants were contacted for their consent before the data collection. They were informed about their right to skip any question at any point during the interview. The findings from the data were later shared with the participants for their consent to publish anonymously.

Data Analysis

The analysis followed reflexive thematic analysis by Braun and Clarke (2019) by following steps such as familiarization, generating codes, generating themes, reviewing themes, defining themes,

and naming themes. The researchers first read all the transcripts to familiarize themselves with the statements. Following this, 435 statements have been initially isolated based on their alignment with the research questions. After codification and further deliberation, 128 statements were narrowed down, and 8 themes emerged from the statements. A further review of these themes reduced the number to 6. Thematic analysis is revered as an effective approach that offers both flexibility and potential for nuanced, complex, and interpretative analysis (Braun et al., 2016).

Findings

Findings from the existing studies globally indicate an overwhelming acceptance of the diverse benefits of using AI tools for different academic purposes. After a thorough analysis of the data that has been collected, a number of themes have raised. The themes emerging from the investigation of R.Q. 1 are: familiarization with similar technology, positive experience with the interface, and varying levels of institutional support. The themes that emerge from the investigation of R.Q. 2 are the ability to address classroom limitations, reduction of load, and empowerment of the students.

The findings include pseudonyms to protect the anonymity of the participants who contributed to the study.

R.Q. 1 How do tertiary teachers perceive the ease of use while utilizing AI tools for academic purposes?

Familiarization with similar technology

Transcripts from the interview indicate parallels with teachers' prior experience of using different tools. Roy states,

> *"The programs are not that different at all. If you know how to write a message, you can get most of these things done."*

Ricky scaffolds Roy's perceptions while he mentions,

> *"You need to get a bit of experience on how you are giving it (ChatGPT) orders (prompts), but it does not seem too different from texting with a friend."*

However, the feeling is not universal. There have been deviations while exploring teachers' familiarization with similar tools in Bangladesh. Garcy notes,

> *"The experience is difficult. You have to create an account and then write a proper message (prompt) in the correct place. Where do you do things like this?"*

The quotes above highlights differing teacher perspectives on adopting new digital tools, specifically AI-based platforms like ChatGPT. Roy and Ricky express confidence and familiarity, comparing the use of ChatGPT to everyday digital communication such as messaging or texting. Their comments suggest that prior experience with technology eases the learning process. Conversely, Garcy's remarks reveal discomfort and confusion, emphasizing barriers like account creation and understanding platform interfaces.

Positive Experience with the Interface

When asked about the teachers' experience using the chatbots, the teachers indicated genuine comfort while navigating through the user interface. Trevor mentions,

> *"It feels pretty straightforward to me. You do not need to worry too much about where you find the different things."*

He adds,

> *"The attempt to make things easy for the end-user is quite visible."*

However, the transcripts also reveal contrastive perceptions. Abraham notes,

> *"Not all the software (Chatbots) behaves the same. I was using Aria in Opera browser, but this seemed different from ChatGPT.....The things are in different places. It also took me a while to find the older conversations."*

Trevor's comments above reflect a sense of ease and appreciation for user-friendly design, suggesting that well-structured interfaces foster confidence and engagement. His remarks highlight the importance of intuitive layout and accessibility in educational technology. In contrast, Abraham's experience reveals the inconsistencies across different chatbot platforms. His difficulty locating functions, such as past conversations, underscores how variation in interface design can hinder usability and disrupt familiarity. Together, these perspectives illustrate that while user-centered design promotes comfort, inconsistency between similar tools can create barriers to seamless adoption.

Varying Levels of Institutional Support

Though faculty members from one of the institutions confirm receiving training (from their office) on using LLMs, the rest from other two institutions did not receive any formal training in this regard.

Taher mentions,

> *"They (the university) held a couple of workshops at the university, but I could attend only one."*

Once asked about his experience while attending the training, the teacher replied,

> *"It was pretty easy. I think they could have discussed more advanced usage of the different tools. The facilitator mostly talked about the different inputs (prompts). It would be better if he added how we can verify the results or avoid AI detection."*

Gomes states,

> *"My office does not encourage the use of AI. They seem too afraid to let the students use these tools without any oversight, let alone organize institutional training."*

The quotes above shows teachers' differing reactions to chatbot interfaces as a reflection of how design consistency impacts user experience. It emphasizes that while intuitive and accessible design enhances teachers' confidence and engagement, variations across platforms can create confusion and limit effective use. It suggests that consistency and usability are crucial for promoting smooth adoption of educational technologies.

R.Q. 2 How do tertiary teachers perceive the usability of AI tools they have been using for different academic purposes?

Ability to Address Classroom Limitations

Patricia notes noteworthy benefits of chatbots in addressing some of her classroom limitations. She states:

> *"We have too many students in our classrooms. Try giving 50 students feedback on their writing abilities…Having them use these (chatbots) to collect feedback makes my job easier. I can easily allocate the time to help my students find solutions to these problems."*

Unlike Patricia, Ivy does not always include these tools in her pedagogical practices. Regardless, she indicates,

> *"It (chatbots) helps me design a few materials. You can also ask the tool to create tasks or assessments for the students. I don't use it often, but sometimes it helps when I am struggling with deadlines."*

Teachers' quotes above illustrate how they integrate chatbots differently based on their instructional needs and workloads. Patricia views chatbots as a valuable aid in managing large class sizes, using them to provide students with formative feedback and free up time for deeper support. In contrast, Ivy adopts a more selective approach, employing chatbots occasionally for lesson planning or task creation, especially when facing time constraints. Thus, chatbot use in education is shaped by practical demands and individual teaching contexts rather than uniform enthusiasm or reliance.

Reduction of Workload

The chatbots seem to play a substantial role in helping the teachers cope better with their responsibilities.

Sean states,

> *"Most of the work we do these days is not that complicated. For example, we need to write simple response emails and small applications that can easily be completed with ChatGPT.*

Having one less thing to worry about definitely helps."

All the teachers confirm using different chatbots for different purposes. All of them confirm the positive usability of such tools while completing routine tasks.

Empowerment of the Students

According to the teachers, chatbots also seem to contribute to the empowerment of the students. Rakesh mentions,

> *"The students can now find second opinions. I have asked students to use ChatGPT to get additional feedback on the work they produce. The pressure on us teachers or their peers seems to have decreased. They can check things by themselves."*

However, Sean contends the extent of empowerment while commenting,

> *"ChatGPT is doing its students' work on their behalf. You cannot expect something else to do their work and them to be empowered. The power still very much remains with the software (LLM)".*

There are two contrasting perspectives on if and to what extent us of chatbots contributes to student empowerment. Rakesh views chatbots as tools that foster autonomy by allowing students to seek additional feedback independently, thereby reducing reliance on teachers and peers. In his view, this self-directed engagement enhances students' confidence and learning ownership. Conversely, Sean challenges this notion, arguing that outsourcing work to ChatGPT undermines genuine empowerment, as the technology performs tasks for students rather than enabling critical skill development. This reveals a tension between technological assistance and authentic learner agency in educational settings.

Discussion

The teachers mostly report a positive attitude while talking about the perceived ease of use. The majority of teachers compare the services provided by the chatbots against their personal experience of texting someone over the phone or writing an email. Despite one teacher finding

the user interface a bit unusual, most report facing no trouble navigating through the different features of these platforms. One of the teachers, noting the effort made by the developers to simplify the operation for the end-user, shows an attempt from concerned bodies to understand the users of their technology. At the same time, some of the lesserknown tools, such as Aria, have been reported to be a bit difficult to integrate due to their difference from the most popular chatbot at the moment, ChatGPT. Interestingly, the findings does not notice any consistency in the availability of support from institutions. The teachers mostly report the deterrent of institutions to sanction the use of these Chatbots by the teachers, let alone train them to make the best use of these tools. Celik (2022) advocates for the need to foster both technological and pedagogical knowledge among teachers for efficient integrations of AI tools. Nazaretsky et al. (2022) narrow down professional development strategies to be among the reasons influencing faculty members' trust as well as willingness to integrate AI technologies in their classrooms. Though the available research on teacher training in different AI tools remains conflicting, the finding in regards to the context aligns with the conditions encountered by Roshan et al. (2024), where the investigators surveyed around 200 teachers from different levels of education and could not find any more than 30 percentiles of the educators who received institutional training.

In terms of the perceived usefulness of these Chatbots, the teachers noted several advantages of synchronous and asynchronous integrations of these tools. One of the most universal findings across studies, was the ability of chatbots to address some of the inherent problems of having large class sizes in contexts where the teacher-student ratio has been far from optimum. The teachers noted that they could not manage the time to give feedback to all the students, reporting the little time they get to teach in class and cover the syllabus. Chatbots have proven useful in ensuring all the students receive feedback on their work, no matter how much interaction time they have with the students. One of the teachers even mentioned that the reduction of time to give feedback to every individual could be utilized elsewhere to better explain some of the feedback and help the students come up with their strategies to address some of the issues they have been able to identify. The teachers also report the ability of these Chatbots to reduce some of the routine tasks they have been assigned, such as communications on course advising and other administrative procedures. The teachers also perceived the tools to promote the empowerment of the students. The findings indicate that the teachers feel these tools reduce the external dependence of learners to gather knowledge and help them become more self-reliant. At the same time, one of the teachers shared her concern about whether these tools offered opportunities for students to skip work and, in the process, avoid the journey of accumulating any knowledge. The remarks point to the lack of supervision in how the students should be using these tools and indicate the diverse factors influencing institutions to not go 'all-in' when it comes to Chatbots readily available on the internet.

Conclusion

The advent of technological innovations has truly been staggering. At the same time, reflections reveal a significant disparity based on contextual realities across the globe. Whereas some educational contexts are benefiting from the inclusion of advanced AI technologies, learning

contexts like Bangladesh are still struggling to navigate and ensure the most basic smart classrooms that offer learners the opportunity to learn through multimedia. Unleashing the full potential of tech-led education remains a distant dream for such scenarios. On the other hand, almost all research from the country on teachers' perceptions indicate tremendous responsibilities lying on their shoulder. Key stakeholders like the institutions, governments, and even the teachers themselves, therefore, must explore ways to address some of these major challenges stopping them from achieving more together. The findings from the study reveal an overwhelmingly positive attitude towards Chatbot integration in the classrooms, despite some concerns about the ethical aspects of its possible usage. More has to be done to ensure these sentiments translate into conclusive actions that steer the education landscape towards more productive outcomes.

Limitations of the Study

Some characteristics, like the exclusion of potential participants, are prevalent in the majority of studies. Most of the respondents in the study reside and work in Dhaka. The findings do not include perceptions from the educators outside the city. Secondly, the study could also significantly benefit from the possible inclusion of other education frameworks (e.g., technical education, madrasa education, etc.) that function in the country. The lack of technological interventions in these separate contexts influenced the decision to restrict the demography at the tertiary level.

The Authors:

Munshi Nazmus Sakibis a Lecturer in the Department of English at East West University, Bangladesh. He holds an M.A. in Applied Linguistics and ELT and an M.Ed. in Educational Leadership and School Improvement. His research focuses on sustainability education, curriculum design, systems of academic support, low-tech learning innovations, critical race theory, and the pedagogical challenges faced by coastal communities.

Ms. Rukhsar Raiyan Modina is a Lecturer in the Department of English at the American International University–Bangladesh (AIUB). She holds a B.A. (Hons.) in English and an M.A. in Applied Linguistics and ELT from Jahangirnagar University. Currently, she is pursuing further studies in TESL/TEFL at Colorado State University, USA. Her research interests include ESL/EFL classroom issues, language assessment and inclusivity in higher education.

References

Abel, V., Tondeur, J., & Sang, G. (2022). Teacher Perceptions about ICT Integration into Classroom Instruction. *Education Sciences*.https://doi.org/10.3390/educsci12090609.

Adams, W. (2015). *Conducting Semi Structured Interviews,* 492 505. https://doi.org/10.1002/9781119171386.CH19.

Adiguzel, T., Kaya, M., & Cansu, F. (2023). Revolutionizing education with AI: Exploring the transformative potential of ChatGPT. *Contemporary Educational Technology.* https://doi.org/10.30935/cedtech/13152.

Ashikullah, M. (2024). Investigating the Pros and Cons of Artificial Intelligence (AI)-Based Systems: A Case Study on the Use of ChatGPT in Higher Education in the Northern Region of Bangladesh. *International Journal on Studies in English Language and Literature.* https://doi.org/10.20431/23473134.1206001.

Braun, V., Clarke, V. (2019). Reflecting on Reflexive Thematic Analysis. Qualitative Research in Sport, *Exercise and Health,* 11, 589-597.

Braun, V., Clarke, V., & Weate, P. (2016). Using thematic analysis in sport and exercise research. *Exercise and Health*, 213-227. https://doi.org/10.4324/9781315762012.CH15.

Bristi, N. (2018). Incorporating EFL websites in class: Bangladeshi teachers' perceptions. *Journal of NELTA.* https://doi.org/10.3126/NELTA.V23I1-2.23356.

Campbell, S., Greenwood, M., Prior, S., Shearer, T., Walkem, K., Young, S., Bywaters, D., & Walker, K. (2020). Purposive sampling: complex or simple? Research case examples. *Journal of Research in Nursing,* 25, 652 - 661. https://doi.org/10.1177/1744987120927206.

Celik, I. (2022). Towards Intelligent-TPACK: An empirical study on teachers' professional knowledge to ethically integrate artificial intelligence (AI)-based tools into education. *Computers in Human Behaviour,* 138, 107468. https://doi.org/10.1016/j.chb.2022.107468.

Chau, P. (1996). An Empirical Assessment of a Modified Technology Acceptance Model. *Journal of Information Management System.* 13, 185-204. https://doi.org/10.1080/07421222.1996.11518128.

Cheng, C. (2024). Using AI-generative tools in tertiary education: Reflections on their effectiveness in improving tertiary students' English writing abilities. *Online Learning.* https://doi.org/10.24059/olj.v28i3.4632.

Chiu, T., Moorhouse, B., Chai, C., & Ismailov, M. (2023). Teacher support and student motivation to learn with Artificial Intelligence (AI) based chatbot. *Interactive Learning Environments.* https://doi.org/10.1080/10494820.2023.2172044.

Chounta, I., Bardone, E., Raudsep, A., & Pedaste, M. (2021). Exploring Teachers' Perceptions of Artificial Intelligence as a Tool to Support their Practice in Estonian K-12 Education. *International Journal of Artificial Intelligence in Education,* 32, 725 - 755. https://doi.org/10.1007/s40593-021-00243-5.

Crompton, H., Jones, M., & Burke, D. (2022). Affordances and challenges of artificial intelligence in K-12 education: a systematic review. *Journal of Research on Technology in Education,* 56, 248 - 268. https://doi.org/10.1080/15391523.2022.2121344.

Davis, F. D. (1989). Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology. *MIS Quarterly,* 13(3), 319–340. https://doi.org/10.2307/249008

Dragan, I., & Isaic-Maniu, A. (2013). Snowball Sampling Completion. *Journal of Studies in Social Sciences,* 5.

Galindo-Domínguez, H., Delgado, N., Losada, D., & Etxabe, J. (2023). An analysis of the use of artificial intelligence in education in Spain: The in-service teacher's perspective. *Journal of Digital Learning in Teacher Education,* 40, 41 - 56.https://doi.org/10.1080/21532974.2023.2284726.

Granić, A., & Marangunic, N. (2019). Technology acceptance model in educational context: A systematic literature review. *British Journal of Educational Technology* 50, 2572-2593. https://doi.org/10.1111/BJET.12864.

Khlaif, Z. (2018). Teachers' Perceptions of Factors Affecting Their Adoption and Acceptance of Mobile Technology in K-12 Settings. *Computers in the Schools,* 35, 49-67.https://doi.org/10.1080/07380569.2018.1428001.

Kirchherr, J., & Charles, K. (2018). Enhancing the sample diversity of snowball samples: Recommendations from a research project on anti-dam movements in Southeast Asia. *PLoS ONE,* 13. https://doi.org/10.1371/journal.pone.0201710.

Lee, Y., Kozar, K., & Larsen, K. (2003). The Technology Acceptance Model: Past, Present, and Future. *Communication Association Information System,* 12, 50.https://doi.org/10.17705/1cais.01250.

Li, K., Li, Y., & Franklin, T. (2016). Preservice Teachers' Intention to Adopt Technology in Their Future Classrooms. *Journal of Educational Computing Research,* 54, 946 - 966. https://doi.org/10.1177/0735633116641694.

Ma, Q. & Liu, L. (2004). The Technology Acceptance Model: A Meta-Analysis of Empirical Findings. *Journal of Organizational and End User Computing (JOEUC),* 16(1), 59-72. https://doi.org/10.4018/joeuc.2004010104

Naher, J., Maruf, M., Bakht, S., & Sadaf, S. (2023). A Survey to Understand the experience of ChatGPT Usage among Engineering University Students in Bangladesh. *Technium: Romanian Journal of Applied Sciences and Technology.* https://doi.org/10.47577/technium.v15i.9660.

Nazaretsky, T., Ariely, M., Cukurova, M., & Alexandron, G. (2022). Teachers' trust in AI-powered educational technology and a professional development program to improve it. *Br. J. Educ. Technol., 53*, 914931.https://doi.org/10.1111/bjet.13232.

Őhman, A. (2005). Qualitative methodology for rehabilitation research. *Journal of rehabilitation medicine,* 37 5, 273-80. https://doi.org/10.1080/16501970510040056.

Pande, S., Moon, J. S., & Haque, M. F. (2024). Education in the era of artificial intelligence: An evidence from Dhaka International University (DIU). *Bangladesh Journal of Multidisciplinary Scientific Research,* 9(1), 7-14.

Rafique, R. (2022). Self-initiated Technology-mediated Professional Development Activities: A small-scale qualitative study with eight English teachers in Bangladesh. *BELTA Journal.* https://doi.org/10.36832/beltaj.2022.0601.07.

Roshan, S., Iqbal, S., & Qing, Z. (2024). Teacher Training and Professional Development for Implementing AI-Based Educational Tools. *Journal of Asian Development Studies.* https://doi.org/10.62345/jads.2024.13.2.154.

Seraj, P., Klimova, B., & Habil, H. (2021). Use of Mobile Phones in Teaching English in Bangladesh: A Systematic Review (2010–2020). *Sustainability,* 13, 5674. https://doi.org/10.3390/SU13105674.

Sutrisman, H., Simanjuntak, R., Prihartanto, A., & Kusumo, B. (2024). The Impact of Using AI in Learning on Understanding of Material by Young Students. I*nternational Journal of Educational Research.* https://doi.org/10.62951/ijer.v1i3.43.

Sugar, W., Crawley, F., & Fine, B. (2004). Examining Teachers' Decisions To Adopt New Technology. Journal of Educational Technology and Society 7, 201-213. Stošić, L., & Stošić, I. (2015). Perceptions of teachers regarding the implementation of the internet in education. *Computers in Human Behaviour,* 53, 462-468. https://doi.org/10.1016/j.chb.2015.07.027.

Rafique, R. (2022). Self-initiated Technology-mediated Professional Development Activities: A small-scale qualitative study with eight English teachers in Bangladesh. *BELTA Journal.* https://doi.org/10.36832/beltaj.2022.0601.07.

Roshan, S., Iqbal, S., & Qing, Z. (2024). Teacher Training and Professional Development for Implementing AI-Based Educational Tools. *Journal of Asian Development Studies.* https://doi.org/10.62345/jads.2024.13.2.154.

Seraj, P., Klimova, B., & Habil, H. (2021). Use of Mobile Phones in Teaching English in Bangladesh: A Systematic Review (2010–2020). *Sustainability*, 13, 5674. https://doi.org/10.3390/SU13105674.

Sutrisman, H., Simanjuntak, R., Prihartanto, A., & Kusumo, B. (2024). The Impact of Using AI in Learning on Understanding of Material by Young Students. *International Journal of Educational Research.* https://doi.org/10.62951/ijer.v1i3.43. Stošić, L., & Stošić, I. (2015). Perceptions of teachers regarding the implementation of the internet in education. Computers in Human Behaviour 53, 462-468.https://doi.org/10.1016/j.chb.2015.07.027.

Venkatesh, N., Morris, N., Davis, N., & Davis, N. (2003). User acceptance of information Technology: toward a unified view. *MIS Quarterly,* 27(3), 425. https://doi.org/10.2307/30036540

Venkatesh, N., Thong, N., & Xu, N. (2012). Consumer Acceptance and use of Information technology: Extending the unified theory of acceptance and use of technology. *MIS Quarterly, 36*(1), 157. https://doi.org/10.2307/41410412

Wafik, H., Mahbub, S., Arif, Z., Prince, S., & Huda, M. (2024). Academicians' Perspectives on AI Integration in Bangladesh's Education: Balancing Promise and Ethical Realities. *Cognizance Journal of Multidisciplinary Studies.* https://doi.org/10.47760/cognizance.2024.v04i02.014.

Widiati, U., Rusdin, D., Indrawati, I., , M., & Govender, N. (2023). The impact of AI writing tools on the content and organization of students' writing: EFL teachers' perspective. *Cogent Education,* 10.https://doi.org/10.1080/2331186X.2023.2236469.

Wilson, C. (2014). Semi-Structured Interviews. 23-41. https://doi.org/10.1016/B978-0-12-410393-1.00002-8.

Wolff, B., Mahoney, F., Lohiniva, A., & Corkum, M. (2019). Collecting and Analyzing Qualitative Data. The CDC Field Epidemiology Manual.https://doi.org/10.1093/OSO/9780190933692.003.0010.

Zhou, X., Zhang, J., & Chan, C. (2024). Unveiling Students' Experiences and Perceptions of Artificial Intelligence Usage in Higher Education. *Journal of University Teaching and Learning Practice.* https://doi.org/10.53761/xzjprb23.

Consent Form

Hello, thank you for taking the time to speak with me today. I want to start by explaining the purpose of our conversation and the rights you have as a respondent.

Before we begin, I want to obtain your informed consent to participate in this research. This means that you have the right to know what the research is about, what will be asked of you, and what you can expect from the experience.

The Purpose of the Research

Our research aims to explore the teachers' perception of using AI tools like chatbots for academic purposes. Your input is invaluable to us, and we appreciate your willingness to share your thoughts and experiences. What Will Be Asked of You

During our conversation, I will ask you a series of questions, and our responses will be kept confidential and anonymous, unless you choose to share your identity. You are free to refuse to answer any question that makes you uncomfortable.

Your Rights as a Respondent

You have the right to withdraw from the research at any time, without penalty or consequence.

You have the right to refuse to answer any question or to stop the interview at any time.

Your responses will be kept confidential and will not be shared with anyone without your explicit consent. You have the right to request a copy of your interview transcript if you so choose.

Confidentiality and Anonymity

All data collected during this research will be kept confidential and anonymous, unless you choose to share your identity. Your responses will be stored securely and will only be used for this research.

Potential Risks and Benefits

There are no known risks associated with participating in this research. However, if you experience any discomfort or distress during the interview, please let me know, and we will take a break or stop the interview altogether.

Informed Consent

By participating in this research, you are giving me permission to record and use your responses for this study. You are also acknowledging that you have been informed of your rights as a respondent and that you have the right to withdraw from the research at any time.

If you have any questions or concerns, please don't hesitate to ask. If you are willing to proceed, please sign and date the consent form [provide a consent form for the respondent to sign]. Thank you again for your participation.

Consent Form

I, _____, hereby give my informed consent to participate in the research study described above. I understand the purpose of the research, what will be asked of me, and my rights as a respondent. I acknowledge that I have been informed of the potential risks and benefits associated with participating in this research.

Signature: _____ Date: _____

Questionnaire for the Teachers [Demography]

1. Hello, sir/ma'am. Would you please tell me your name?
2. What is your age?
3. May I know your gender?
4. How long have you been involved in teaching at the tertiary level? (in months) [Understanding AI Integration]
5. What is your understanding of Artificial Intelligence (AI) or chatbots in the context of education?
6. Have you ever used a chatbot? If so, could you please describe the use case? [Perceived ease of use]
7. What Chatbot did you use? Why did you choose the chatbot?
8. How was your experience regarding the user interface? Please explain.
9. Did you face any difficulties while using these chatbots? Please elaborate.
10. Did your institution support you in any way to help you learn the use of these Chatbots? If yes, could you tell us about your experience with the support you have received? If not, could you please share your view on this? [Perceived Usefulness]
11. Did you find the chatbots useful? Please elaborate.
12. How did the chatbots help you perform your responsibilities as a teacher?
13. In your opinion, what influence has the integration of chatbots brought to the lives of your students? [Conclusion]
14. Is there anything else you would like to add regarding the ethical implications of AI in education?