Exploring the adoption of AI-assisted teaching among TESOL instructors at a university in Tashkent.

by

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Abstract

This qualitative study investigated the use of AI-assisted teaching technologies by TESOL instructors at a university in Tashkent, Uzbekistan. Focusing on instructors' levels of awareness, self-reported use, preceding or sociocultural-ethical AI-related perceptions, and challenges AI integration into language education, the study was guided by the Technology Acceptance Model (TAM) along with Social Constructivism. Data were collected through surveys, semi-structured interviews, and reflective journals, then analyzed using thematic analysis in NVivo software.

Most participants were aware of the existence of AI-assisted tools such as ChatGPT, QuillBot and Grammarly, but their adoption of such tools remained at a different level. The main usage of AI assisted tool is for lesson planning and activity creation, brainstorming ideas. Instructors cited lack of training, tool limitations, ethical concerns and sociocultural factors such as dealing with plagiarism and lacking specific institutional policies.

Research shows that TESOL instructors treated the innovation carefully and with a high level of ethical consideration when incorporating AI technologies into their lessons. This study advocates for professional development in AI and policy frameworks for TESOL educators to have meaningful ethical AI use in TESOL classrooms. This will contribute to the discussion on integrating AI technologies in education and assist institutions adopting new technologies in language instruction.

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A Plan for a Professional Website

Creating a personal website is common these days, but I'm pleased to say I was able to achieve this through my EdD portfolio. I have included a bio, a summary of my achievements and interests, along with links of relevant websites and profiles in My Google site which can be accessed below.

Google website.

The functionality of the site makes it appealing to add information, as it is streamlined and easy to navigate. I hope to modify the design of my site to look more polished to create advanced functionalities. Furthermore, my contact details as well as the link to my LinkedIn profile are listed there. I hope to make further updates by incorporating new data from my ongoing research in the near future.

These include infographics, images, presentations, and publications. Most recently, I attended the TESOL Convention in the US in April 2025 and shared my research at the Convention. Also, I included my presentation on my professional website from the event, which I think will greatly benefit my fellow educators. In this modern era, a website is undoubtedly important. It is the central repository of all my research and shows my professional achievements for anyone who is interested. Such a website will enable me to keep my audience engaged by providing a variety of materials, including papers, infographics, and presentations. This will assist me tremendously when it comes to sharing my experiences and contributions in the fields of TESOL and AI-assisted teaching.

Contextualization

The integration of technology in teaching has improved the processes of teaching and learning in language education. Since the 1960s, several methods and tools for learning languages have been developed, such as the Audio-Lingual Method (Danesi, 2024) and the introduction of computer-assisted language learning (CALL) in the 1970s (Chapelle, 2001). American scientific researchers were given proprietary technology in engineering and advanced research technology post-World War II (Downing, 1992). With the continued development of technology, the internet became publicly accessible in the 1990s, making many new communication and instructional materials available.

Digital technology has transformed education over the last few decades, resulting in the development of online courses, digital classrooms, and e-learning platforms (Garvis & Lemon, 2015). The education system in Uzbekistan has also gone through many changes over the years. Especially, after covid 19, many reformations have been made to integrate technology in education (Sankar & UNICEF Uzbekistan, 2021). Uzbek universities had to adapt to new ways of teaching by switching to online mode of teaching. It was challenging at first because there was a lack of training both for teachers and students to learn new ways of teaching and learning. Local universities utilized MOODLE as an open-source online platform and zoom to conduct online classes. Online learning became popular after the COVID-19 pandemic, but it was not popular in Uzbekistan, and it was not considered reliable (Raisov & Khasanova, 2021).

The use of educational technology has been profoundly reshaped through the emergence of AI tools, especially generative models such as ChatGPT (Judijanto et al., 2024).

These tools are actively changing and improving language teaching through personalized feedback, streamlining administrative duties, and supporting more engaging learning activities (Danesi, 2024). The continued development of AI technology poses new integrative prospects and challenges in educational systems that require deeper study.

The availability of Artificial Intelligence (AI) technology to the general public has accelerated its adoption globally and within Higher Education institutions (Ngo & Hastie, 2024b). While the application of technology in pedagogy has historically progressed over the years, the scope of change focused initially on computer-assisted language learning (CALL). In Chapelle's (2001) works, this focus was clearly demonstrated. But the most recent developments in the field are AI-powered solutions like ChatGPT, consistent with the ongoing shift towards Digital Transformation in Education. The ChatGPT AI chatbot platform was publicly launched in 2022 (Danesi, 2024; Kyle Wiggers, 2024).

Until the release of ChatGPT, public interest in AI was primarily limited to tech enthusiasts and researchers who are interested in technology. Since its release, ChatGPT has sparked widespread interest globally, including among educators, administrators, and students in Uzbekistan. Its capabilities in generating human-like text, providing individualized feedback, and automating various tasks have prompted users to explore how AI can enhance effectiveness across various domains, particularly in education. Nowadays, as AI continues to advance, it is increasingly surpassing human performance in a wide range of tasks (TED, 2024).

However, Uzbek citizens did not have access to AI until November 2023 (Kun.uz). There were many controversial ideas when ChatGPT was first introduced to language instructors and students. Teachers were concerned that students will use it for mainly plagiarizing and some

of them were concerned that it might replace their jobs in the future. It is always important to determine how people feel about adopting new technologies. We may find similar ideas in Garib's (2022) article on how language teachers and students view and interact with technology in the classroom. These viewpoints may differ in different settings, which could have an impact on how popular and integrated AI-assisted teaching techniques are.

I personally found out about ChatGPT in early 2023 and was fascinated by its capabilities. Since then, I've started practicing with ChatGPT and learned a lot about it. After attending AITEFL 2024 conference, I've decided to pursue my topic in the field of Artificial Intelligence. Visiting many sessions on this topic at the conference helped to make this important decision. What is interesting is that educators from different parts of the world are also trying and testing AI in the classroom and employing AI in their curriculum.

Recently, I attended the TESOL 2025 Conference in the U.S., where I presented my EdD research topic and exchanged ideas with educators from several countries. Attending additional sessions on AI allowed me to learn from fellow participants and further enriched my understanding of AI technologies.

As educators, we are all looking into ways to use AI in the classroom and increase the efficiency of foreign language instruction. People frequently believe I must be an expert in technology when I share my DDP topic with them. But like other educators worldwide, I am also an educator who is trying to learn more about AI and how we might use it in the classroom.

Like many other nations, Uzbekistan's education system is highly affected by its sociocultural context. It is home to a variety of cultures and highly appreciates multilingualism and language. English, Russian and Uzbek are the three main languages spoken in the country

(Chepkemoi, 2017). English is considered to be one of the most important foreign languages for both professional and academic success, which increases the need for adequate TESOL (Teaching English to Speakers of Other Languages) programs.

Uzbekistan's sociopolitical environment is marked by continuous educational reforms aimed at modernizing the system and raising teaching standards (Sankar & UNICEF Uzbekistan, 2021). The government particularly considers educational systems vital for social and economic development. In order to improve the training of teachers and the integration of technologies in teaching, many programs have been set up (Tulanovna, 2021).

The implementation of comprehensive reform policies includes encouraging the use of Artificial Intelligence (AI) and other technologies in teaching. The government's support concerning innovations and the integration of modern technologies into schooling is indicative of the digital transformation that is being undertaken (Tulanovna, 2021). With regards to the teaching of English in the context of other European languages, this policy approach helps to unlock the possibilities of exploring AI-assisted teaching in TESOL programs.

In other cases, constructing a working model, especially in relation to achieving technological equity, in addressing privacy and ethical issues, and providing appropriate support and training for educators presents a multitude of problems (Qumer, 2023). Solving these sociocultural issues is critical for the productive application of artificial intelligence to TESOL instruction. AI-assisted instruction in Tashkent, as in the rest of Uzbekistan, may face challenges related to the lack of policies regarding the use of modern technology in education from the Ministry of Higher Education.

"Digital Uzbekistan-2030" Strategy was approved in 2020 with a goal that every area of industry including public administration, education, health care, and agriculture will be completely digitized by the year 2030. (Presidential Decree No. UP-6079, 2020). This presidential decree is analogous with the United Nations sustainable Development 2030 agenda which aims to provide education of modern technological integration (Garvis & Lemon, 2015). Within this framework, Uzbekistan aims to position itself as a regional leader in artificial intelligence (AI), considering the technology as a vital determinant of economic, social development, and modernization (Rakha, Allah, 2023). This focus is important for the country in its effort to improve effectiveness, competitiveness, and innovation across different areas including the education sector. In order to meet these objectives, the government is now focusing on developing digital infrastructure, increasing AI in research, constructing technology parks, creating awareness programs for digital literacy, and improving educational curriculums. Such measures are directed towards establishing a framework for a knowledge-based economy that would harness the potential of AI to enhance the societal challenges and improve the life standards of people.

With the implementation of 'Digital Uzbekistan-2030' initiatives, Uzbekistan is working towards becoming a regional leader in AI. Within regions working towards such goals, understanding how AI gets integrated into sectors becomes vital. When observing the field of education, particularly teaching English to speakers of other languages (TESOL), the integration of AI technology encounters both challenges and opportunities. This is why I focus my research on studying the factors, challenges, and possibilities of AI integration among TESOL educators in Tashkent.

Since the early 2020s, particularly accelerated by the COVID-19 pandemic, universities in our country, especially private ones, offer both online and offline modalities and even hybrid modalities. Our TESOL instructors have been trained well to conduct both modalities equally efficiently with all our graduate students. Learning a foreign language is still in high demand in Uzbekistan and preparing effective future language teachers is to meet this demand in one of our goals in TESOL program at Webster University in Tashkent. Uzbekistan has developed a comprehensive strategy for the development and deployment of AI technologies, emphasizing innovation encouragement and creating an environment that is suitable to educators and entrepreneurs (Muminov, Umarov, & Kim, 2021).

Uzbekistan's higher education institutions might face difficulties when it comes to integrating artificial intelligence, as improvements are still needed in infrastructure, digital literacy, and teaching methods. The use of AI technologies in education is greatly restricted due to the lack of sophisticated technological equipment, and poor Internet access in rural regions further complicates the situation.

Furthermore, while many TESOL instructors are enthusiastic about integrating AI into their teaching, there is a noticeable gap in digital literacy and training. Some educators lack adequate knowledge of how to effectively incorporate AI tools like ChatGPT into their language instruction. Additionally, concerns about data privacy, ethical considerations, and cultural appropriateness further complicate AI integration There are certain challenges to implementing AI technologies in Universities in Uzbekistan. Without implementing the latest technology, it would be difficult to reach our goal because we are educating youth who are digital natives. Therefore, equipping TESOL instructors with AI assisted teaching tools is essential in today's world. This will change the teacher’s perspective on using AI in the classroom by exploring

different AI tools that are available online and trying to check how it can assist instructors in lesson planning, materials development and assessment. This will save teachers precious time and give them extra time for personal development.

The focus of my research is to determine teachers' awareness and integration of AI into their work and find ways to increase their productivity in teaching using AI technology. Many TESOL instructors are worried that AI would take over their jobs or assist students in plagiarizing work. This study intends to help alleviate those concerns by demonstrating how AI can be applied as an assisting resource rather than being a competitor in education. My research attempts to prove the power of the AI revolution for TESOL instructors by demonstrating its relevant applications in teaching, including offering individualized feedback, reducing educators of repetitive tasks, and enhancing learner independence. The study also seeks to eliminate misconceptions surrounding the use of technology by highlighting that, when used wisely, AI technology enriches teaching and learning instead of diminishing the value of educators.

Theoretical Framing

Given that this DDP relates to studying the integration of AI technology into the work of a TESOL instructor, the Technology Acceptance Model (TAM) is an appropriate framework. The Technology Acceptance Model (TAM) builds upon the work of Fishbein and Ajzen (1975) with their Theory of Reasoned Action (TRA). It was later modified by Davis in 1989, who broadened the theory's focus to emphasize perceptions of value and ease of use in order to explain the adoption of technology. As one of the first models designed to evaluate the acceptance and use of new technologies by individuals, its wide applicability to the study of AI instructional technologies makes it immensely useful for the research on TESOL educators and

the use of AI in instruction. It is a useful theoretical framework for studying the acceptance of AI-assisted instruction among TESOL teachers at a university in Tashkent. This study primarily utilizes TAM as the theoretical framework because it attempts to explain how TESOL instructors perceive and adopt AI teaching applications.

Yet, understanding its origins in TRA provides greater insights into how attitudes and other factors may shape behavioral intentions concerning AI engagement and the sociocultural impact of technology integration in foreign language teaching as a case study. This model is widely used to explain the adoption and use of technologies by people. Based on this theory, the attitude of users towards a technology is ascertained mainly from its perceived usefulness (PU) and Perceived Ease of Use (PEOU). These two factors, in turn, influence the user's BiU (Behavioral Intention to Use) and any practical application (AU) of the technology (Davis, 1989; Venkatesh & Davis, 2000; Fishbein & Ajzen, 1975).

Davis (1989) defined Perceived Usefulness (PU) as the extent to which an individual believes that using a particular technology will assist them in completing their task. In the context of our study, PU is the TESOL instructors' perception of the ways AI-assisted teaching could improve their teaching effectiveness, efficiency, and student interaction. It has been noted that users' willingness to continue participating in an online program greatly depends on its perceived usefulness (Ji et al., 2021).

The term "perceived ease of use" (PEOU) is defined as the extent to which a person believes that the use of a given technology will be free of effort (Davis, 1989). PEOU concerns to what degree TESOL instructors find the learning process and application of AI tools to their

teaching tasks straightforward. There is evidence that PEOU has an effect on perceived usefulness which will affect the intention to use technology (Ji et al., 2021).

Attitude Toward Using (ATU) describes the users' emotional response toward utilizing a certain type of technology. The purpose of this study focuses on the attitudes that TESOL instructors hold, whether positive or negative, towards using AI technologies in their instruction. A user's intention to perform a specific action is captured through their behavioral intention to use, or BIU. This construction assesses the intention of TESOL instructors to adopt and integrate AI technologies into their teaching.

Actual Use (AU) describes how technology is employed in practice. For this DDP project, my focus is to examine the actual degree of integration of AI teaching tools by TESOL instructors within their instructional sessions.

The empirical validation performed on a variety of technologies and scenarios demonstrates TAM's capacity to anticipate technology adoption behavior (Venkatesh & Davis, 2000). TAM has shown usefulness in predicting user acceptance of numerous enterprise resource planning (ERP) systems and organizational communication technologies, including email, word processors, and voicemail (Venkatesh & Davis, 2000). Moreover, Sánchez and Hueros (2010) analyzed the adoption of e-learning platforms and discovered that the model explained the adoption. TAM has also been used to evaluate the acceptance of mobile applications (Park, 2009) and tools for education based on artificial intelligence (Teo, 2011). Regardless of the technology examined in the study, the underlying conclusions illustrate that the level of technology adoption is highly correlated with perceived usefulness and perceived ease of use.

My DDP might be able to discern the factors that determine the constraints on the use of AI tools by TESOL instructors whereas these and others could be explained by TAM. Ji et al. (2021) emphasizes the importance of predicting whether the users will revisit learning modules on the model's foresight.

To achieve an effective use of technology in teaching language, I plan to provide an in-depth analysis of the adoption model of AI teaching tools by TESOL teachers in Tashkent through the lens of the TAM model.

Social constructivism is one other theory relevant to my DDP topic. This theory asserts that knowledge is created within a socio-cultural environment through social interaction, collaboration, and shared experience (Chapelle, n.d). When it comes to teaching English to speakers of other languages, this approach places a strong focus on the role of communication and collaboration in learning and teaching.

In relation to the use of AI technologies for teaching, social constructivism accentuates the fact that all integration of technology has to be within the frameworks of cooperation and participation (Karataş et al., 2024). According to Kukulska-Hulme and Shield (2008), TESOL instructors are instrumental in the development of proper contexts where learners work, collaborative problems facilitate and scaffold their experiences.

In addition, the sociocultural context of the educational environment impacts how TESOL teachers think about, integrate, and utilize AI in teaching ai language learning. Teachers' use of AI technologies in language training is affected by cultural norms, beliefs and attitudes regarding technolgies (Pham et al., 2023). Drawing upon Constructivist Social Theory, TESOL educators can design AI-enabled teaching frameworks that promote group work, scaffolding

students' understanding of language concepts, and fostering constructive interactions geared towards a positive learning atmosphere (Zou et al., 2023). As Pham et al. (2023) note, educators can use AI technology to provide learning experiences that are meaningful and relevant to students' culture and life world.

Social constructivism reflects Vygotsky's theories and emphasizes the importance of social interactions and the sociocultural context around learning and integrates them as fundamental components of learning. Within this framework, learning takes place when individuals take part in purposeful activities that enable them to construct knowledge within their social contexts. In TESOL education, social constructivism underscores the significance of collaboration and teamwork in language learning (Huang et al., 2024).

Integrating AI into TESOL instruction requires ensuring that the AI provides support for active, interactive, and collaborative learning environments.

The application of AI in education has the capability to advance social constructivist learning because students would be able to participate in engaging activities, receive immediate responses, and even collaborate with their classmates simultaneously (Mota-Valtierra et al, 2019). An example would be AI powered language learning systems that simulate actual conversations, allowing students to apply their language skills in a social environment.

The scaffolding of learning experiences can greatly benefit from the technology of artificial intelligence (Gobert et al., 2024). Scaffolding, in social constructivism, is assisting a learner in the short term to help him or her reach greater understanding or skill levels. AI can provide individualized scaffolding through custom materials and feedback tailored to each

student's learning pace. This enables students to successfully develop their language skills and deepen their understanding of the content.

Integrating constructivist pedagogy with AI teaching tools requires meticulous planning by TESOL instructors. To AI-enable a lesson, teachers have to design activities that foster genuine conversation, cooperation, and problem solving among students. This includes designing activities such as teamwork, idea generation, and knowledge construction whereby students work in groups and are actively engaged to achieve a common goal.

In addition, the sociocultural context of the students' learning needs to be addressed by TESOL teachers. Cultural practices, norms, values, and attitudes toward technology impact students' interaction with AI, influencing their responsibilities as language teachers (Moorhouse & Kohnke, 2024). These sociocultural elements can be harnessed to design innovative culturally responsive teaching activities that learners will relate to. For example, culturally appropriate contexts and illustrations can be integrated into AI-driven learning tasks to enhance learners' appreciation and interest in their studies.

Additionally, to equip TESOL instructors with the skills and knowledge to integrate AI technologies, professional training is essential (Tan et al., 2025). The focus of these programs should be the educational prospects of AI technologies, social constructivism, and strategies for creating active and project-based learning activities. With adequate support, most teachers are willing to adopt positive approaches toward AI, enabling them to overcome barriers to AI integration, which in turn enhances their teaching approaches.

A Social constructivist perspective helps to understand the issues regarding the implementation of AI-enhanced methods in teaching TESOL (Saleem et al., 2021). This

framework focuses socioculturally guided principles on the development and implementation of AI technologies on the fostering of language learning through social interactions, collaboration, and cultural relevance. Through the application of AI, TESOL teachers can create sophisticated, scaffolded, and goal-oriented learning activities which address the different requirements of the students, that can substantially increase the overall effectiveness of their programs.

Finally, Technology Acceptance Model (TAM) can be helpful to analyze the use of AI-assisted teaching by the TESOL teachers in Tashkent. As the study results show, this model helps in capturing the perception and use of AI technologies in teaching by TESOL educators as it offers a strong base. The main components of this model: Perceived Utility (PU), Perceived Ease of Use (PEOU), Attitude Towards Using (ATU), Behavioral Intention to Use (BIU), and Actual Use (AU) provide an optimal framework for examining the constituents of the adoption of AI (Dahri et al., 2024). There is an empirical endorsement for the predictive power of TAM with different technologies which justifies the use of the model in my research.

The theory of social constructivism is also applied, enriching the framework to capture the sociocultural and group dimensions of language teaching and learning. From this angle, TESOL educators have an important responsibility designing engaging and interactive learning environments that are crucial for the effective application of AI technologies.

Besides fostering the development of AI-powered teaching activities that aid collaboration and provide students with a framework for language learning, social constructivism places importance on culture, its values, and its beliefs while paying attention to the impact of AI on language training.

My DDP aims to analyze the adoption of AI-assisted teaching tools among instructors of TESOL by integrating the Technology Acceptance Model (TAM) and social constructivism. The research analyzed actual usage behaviors, the perceptions and intentions of TESOL instructors, and the key drivers of AI acceptance. This blended approach shaped the development of recommendations for the likelihood of assisted teaching implementation, such as educational campaigns, policy amendments, and funding allocative changes.

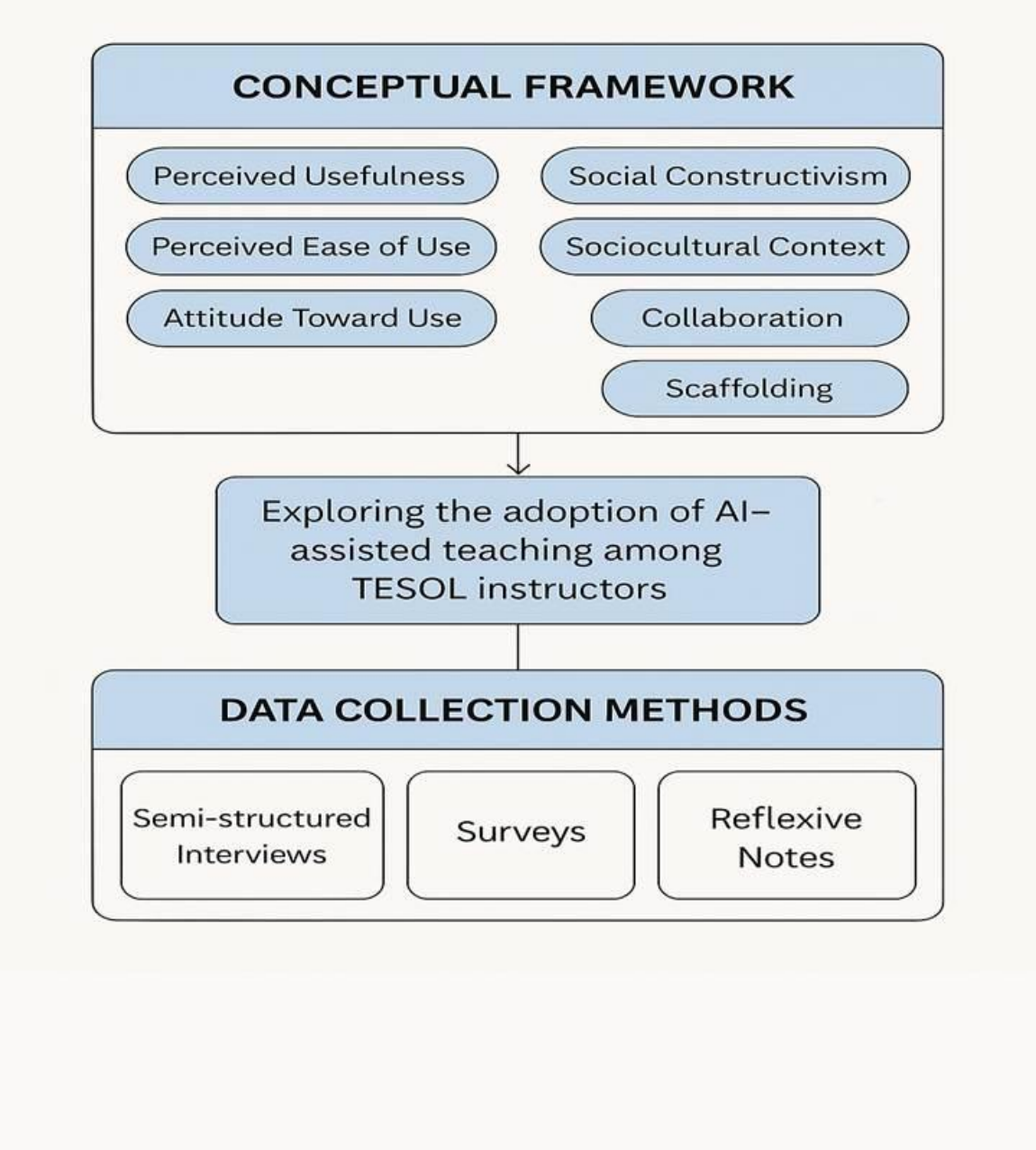
The research results will contribute to the existing literature on AI in education while also offering practical recommendations for TESOL educators, educational policymakers, and technology designers. AI technologies can enhance pedagogical effectiveness, increase student participation, and facilitate meaningful and culturally relevant learning by TESOL teachers. Ultimately, the research aims to support the seamless integration of AI in language instruction, which will transform pedagogical practices in Tashkent and beyond.

The results from this study will assist practitioners in TESOL, educational policymakers, and technology developers while also helping in artificial intelligence in education literature AI (Luckin et al., 2016; Holmes et al., 2019). The literature claims that properly executed AI technologies increases teaching efficiency, student participation, and culturally responsive teaching opportunities (Chen et al., 2020; Zawacki-Richter et al., 2019). With the help of AI technologies, TESOL educators are able to improve their teaching and learning experience through the automation of administrative tasks, custom automated responses, and personalized teaching materials (Nguyen et al., 2021; Huang & Liaw, 2018). This study aims to support practitioners in the application of AI technologies for language teaching in Tashkent and beyond, thereby transforming pedagogical practices in the region.

The integration of the Technology Acceptance Model (TAM) and Social Constructivism theory serves as the basis for this study. In Figure 1, the model demonstrates the relationship among perceived usefulness, ease of use, attitude, and behavioral intentions (from TAM) with the sociocultural context and collective learning dynamics (from Social Constructivism) that inform the practices of AI adoption by TESOL instructors in Tashkent.

Figure 1.

Conceptual Framework



Literature Review

In recent years, educators have become interested in the integration of AI into TESOL. This literature review aims to study various issues associated with AI technology applications in language teaching and learning processes.

There is emerging evidence that AI systems are capable of improving learning outcomes in various contexts. Alhalangy and AbdAlgane (2023) studied AI's impact on EFL (English as a Foreign Language) classrooms in Saudi universities and found that many students were more fluent in the language with AI. In a similar way, Hazaymeh et al. (2024) identified critical barriers and opportunities for AI adoption while focusing on EFL teacher perspectives. From such evidence, it appears that AI can transform language teaching for the better through providing feedback and custom learning pathways.

As with the use of other technologies, educators need to shift their focus towards active professional development to effectively use AI enabled tools in their lessons. Bahari et al. (2022) pointed out that teacher training involves learning how to use new technologies such as AI tools. Assistive technologies should enable language teachers to carry out their responsibilities rather than compound their challenges. Such an issue illustrates the need to prepare teachers properly so they can effectively use AI-assisted teaching methods.

Educators and students are divided in their opinions on the use of AI and technology in learning. Garib (2022) reported the case of conflicting views of Middle Eastern EFL teachers as regard technology-driven project-based learning. Many educators have raised concerns over the potential for AI to increase plagiarism, as well as the reduction of teaching positions available.

Kohnke et al. (2023) evaluated university language teachers' preparedness for generative AI and highlighted the need for proper guidance and training. To mitigate educators' concerns and foster positive perceptions of AI implementation, understanding their beliefs is critical.

Additional recent studies have brought to light the use and acceptance of AI technologies in education. Dahri et al. (2024) carried out a mixed-methods research study on the acceptance of ChatGPT as an AI metacognitive self-regulated learning tutor and its impact on learners' perceptions. It was found that learners, in general, perceived ChatGPT as aiding the development of independent learning techniques, although there were worries about an overdependence on the tool and a lack of critical thinking skills. This study shows that learners need guidance on the ethical use of AI. Moorhouse and Kohnke (2024) also investigated language teacher educators' opinions regarding the usage of generative AI in early language teacher education. Their qualitative study showed that teacher educators acknowledged the potential of AI in personalizing instruction and enhancing interaction. However, there was a lack of pedagogical rationale and ethical frameworks for using AI in teacher training courses. All these studies highlight the lack of caution taken in developing professional development policies in TESOL education with the intent of adequately addressing the AI technology integration in educational settings.

The application of AI technologies, including generative models like ChatGPT, hold significant value in aiding language learning. Karataş et al. (2024) reported that AI technologies, such as ChatGPT, enhanced language learners' abilities by providing interactive activities and prompt feedback. In the discussion of the pros and cons of generative AI in educational research, Pack and Maloney (2023) critically explored the application of AI in language learning and offered constructive strategies for its use.

The experiments highlight the potential of integrating AI technologies into language learning with regard to personalizing and increasing learner engagement.

The possibility of AI in transforming teaching techniques and the relevance of contextual and sociocultural elements are some of the broader impacts of AI use in education. Huang et al. (2024) studied the use of AI in Chinese higher education through the scope of diffusion theory, strengthening the argument on the integration of AI in different educational systems. In their study on the impact of generative AI on higher education, Lee et al. (2024) presented educators' perspectives on the role of AI in education. To enhance interactional competence of EFL learners, Zhai and Wibowo (2023) conducted a detailed analysis of AI conversational agents, demonstrating the role AI can play in language pedagogy. It is apparent from these findings that adapting AI tools for specific cultures and educational systems is essential for maximizing their impact.

Parker et al. (2024) study how higher education is influenced by ChatGPT, focusing on the graduate instructors' perspectives. The research investigates the roles, challenges, and potential that ChatGPT presents in teaching and learning contexts. Key findings indicate that ChatGPT functions as an adaptable educational tool, enhancing learning engagement, assisting with content generation, and providing feedback in real time. Graduate teachers use ChatGPT to create interactive learning activities, organize personalized instruction, and reduce repetitive administrative work.

However, educators also struggle with removing bias from AI-generated content, AI oversight, the ethical use of technology, and maintaining academic integrity. Teachers need dedicated professional development and resources to effectively integrate ChatGPT into their

teaching methods. In spite of these limitations, ChatGPT allows for a high level of flexibility in teaching creativity, thereby fostering more responsive and fluid approaches to learning. The article calls for further study on ethics and teaching theories surrounding AI in education, ongoing professional training for educators, and policy frameworks at the system level for the implementation of AI in education.

It is the responsibility of educators to ensure the ethical use of AI and its content filters, removing any potential biases. In order for instructors to integrate ChatGPT into their teaching methodologies, they need comprehensive assistance and training. Nevertheless these challenges, ChatGPT has remarkable potential for teaching innovations, allowing for more flexible and engaged learning environments. The report proposes further study into the ethical and pedagogical aspects of AI in education, ongoing teacher training, school policies to aid in AI use, and professional development programs for teachers.

Sun (2022) provides a critical overview of the TESOL technology standards for language instructors. This research showcases both persisting issues and notable progress regarding the involvement, or the incorporation of technology within, TESOL. Sun (2022) asserts that because educational technology evolves at a rapid pace, any change in standards requires reconsideration of current practices and prospective innovations. The research highlights the importance of equipping language teachers with the skills and knowledge necessary to implement technology in lesson planning.

As per Sun's research, there are several crucial aspects where educators have successfully integrated new methods and technologies with the help of the TESOL technology standards. It also points out parts of the standards which are not sufficient to cope with more advanced

technology such as AI and machine learning. This underscores the need for ongoing professional advancement and educational organizational resources aimed at ensuring that pace-setting technologies are managed effectively through guided professional development.

As noted by Shalevska (2023), the incorporation of AI technologies is solving complex problems for teachers and students in TESOL. Additionally, Shalevska articulates that AI, through chatbots and virtual assistants, as well as through adaptive learning systems, enables language learners to enjoy novel practices beyond the classroom, receive prompt feedback, and enjoy a more tailored pedagogical approach. These materials facilitate the achievement of learning objectives through multiple pathways which are not provided by traditional models.

Shalevska (2023) focuses on some of the ethical concerns and other challenges related to the use of artificial intelligence in TESOL teaching. One of the most critical challenges is the so-called “digital divide,” that points out how poor access to technology can worsen existing inequalities in education. The use of AI in education and its implications regarding ethical use, particularly concerning data privacy, are important questions that need to be addressed. Shalevska emphasizes that educators need proper professional training before they can effectively integrate AI tools into their teaching strategies.

The integration of artificial intelligence into TESOL comes with both pros and cons. Although AI technologies have the capacity to radically change language learning through personalized and engaging education, much work still needs to be done to address the implementation barriers related to culture, context, and the need for enduring professional development opportunities for educators. As the reviewed research offers insights into the complex considerations surrounding AI teaching in TESOL, it becomes possible for educators

and policymakers to decide on the appropriate strategies for including AI into teaching methodologies.

Although there is existing AI literature, further empirical study is still needed AI-assisted teaching's effects on language competencies of TESOL students in Tashkent. The gap AI's potential aids in language acquisition and improving learning outcomes shows the need to investigate how AI tools can be used to aid language acquisition in the area of TESOL.

All of these studies emphasize the need to incorporate Artificial Intelligence into language learning while also explaining why it is hard to use with no restrictions. The need for comprehensive pedagogical necessities, cultural and contextual foci, and the diverse views of educators about the use of AI in teaching languages captures the essence of such hindrances.

The review adds the perspectives of lecturers, readiness, and use of AI chat systems in teaching technology, learning AI, and language skills to different educational levels into the already broad prism of integrating AI into language education. These approaches make it easier to comprehend reality, problems with the concept, and educators' understanding of the situation.

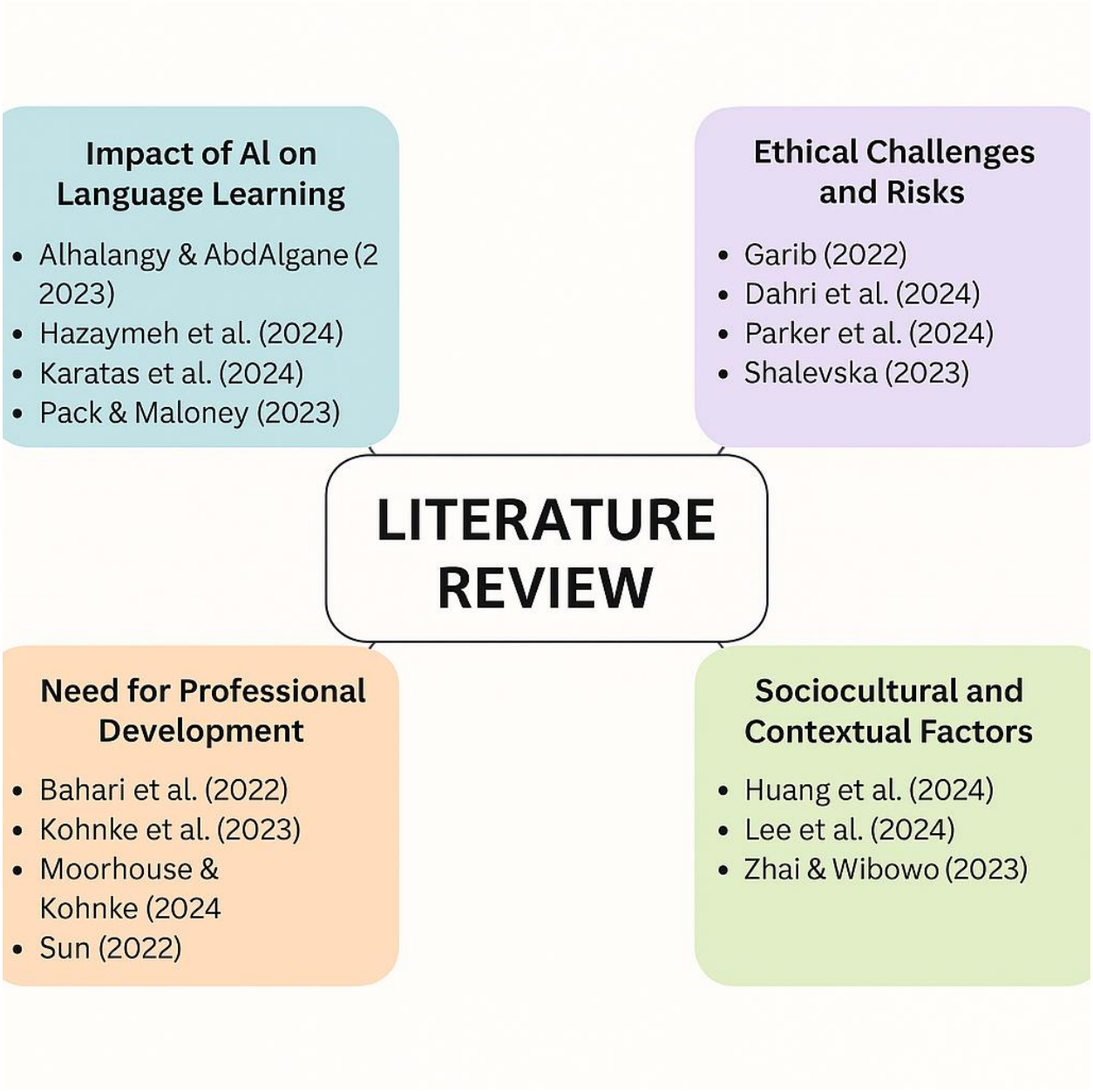
Since most existing studies on AI in TESOL have primarily employed quantitative survey methods, this study adopted a qualitative grounded theory approach to gain deeper, context-rich insights into teachers' experiences and perspectives.

This mind map captures the most important concepts and outcomes from the literature on AI's application in the context of TESOL focusing on the teacher's perception, implementation challenges, ethical issues, and the necessity for professional

advancement for teachers. It also illustrates the lack of researched areas relevant to central Asia, especially Uzbekistan.

Figure 2. Thematic literature review

Adapted from ChatGPT (2025), OpenAI.



Statement of Problem of Practice

We cannot deny that the integration of technology, especially Artificial Intelligence (AI), into the teaching of English as a Second Language (TESOL) presents new and unique opportunities to modernize pedagogy and enhance student engagement. However, there appears to be a major disconnect between the AI tools available and their actual usage by TESOL teachers. Many instructors seem to either lack knowledge regarding the tools available to AI-assisted instruction or face significant challenges when trying to integrate them into their lessons.

The integration of artificial intelligence technology and education still lacks extensive research. There is some growth in research regarding the impact of AI on EFL contexts and language learning, but very little addresses the case of Tashkent in Uzbekistan, specifically the TESOL teachers and their approaches toward AI tools in teaching. Most of the existing research tends to focus on other contexts and their specific problems, leaving little to no information on the situation in Tashkent.

Moreover, as suggested in the literature review, not all of the work is fully completed, especially in studies conducted by Hazaymeh et al. (2024) and Kohnke et al.(2023) noted that while there has been consideration of EFL teachers' perceptions concerning the use of AI, more exploration concerning the attitudes, perceptions, and readiness of TESOL instructors regarding AI teaching is still needed. Understanding these issues, in particular, the context of Tashkent may shed helpful light towards the effective harnessing of AI.

As emphasized in the literature, AI tools require professional language teachers to be trained and developed continuously, something that Bahari et al. (2022) elaborated on. However, there seems to be no research on the design, implementation, and evaluation of professional development programs specifically tailored for TESOL instructors in Tashkent. Addressing this concern will ensure the teachers are adequately prepared to use AI technologies in their teaching.

Another major issue is that of ethical and socio-cultural factors which, as Garib (2022), among others, highlighted, have implications for the use of AI in language teaching. There is a lack information about the influence of these factors on TESOL teachers in Tashkent, though. Addressing these issues would facilitate a better understanding of the factors that hinder as well as those that enable the use of AI in the region.

TESOL instructors did not have adequate preparation and information about AI-assisted teaching techniques which poses as an issue (Zawacki-Richter et al., 2019; Liu et al., 2020). This lack of relevant training could lower the language teaching standards and student learning outcomes, weakening the effective application of AI tools. Moreover, failure to incorporate AI properly could bring undesired negative consequences (Gebru, n.d.). It is therefore crucial that teachers are sufficiently trained so they can guide their students on the application of AI. Furthermore, the use of AI in education is complex due to sociocultural and ethical issues which greatly influence educators' perceptions of AI.

This study assists TESOL educators by evaluating the shortcomings associated with AI technology integration in teaching and attempting to solve those issues. It is hoped that in tackling these problems, the project will help in formulating plans aimed at helping TESOL

educators develop methods that leverage AI technologies for efficient language teaching and learning.

Research Questions

The TESOL teachers at the University in Tashkent have started AI-assisted teaching. One of the primary goals of this study is to investigate the adoption of AI in teaching to integrate into language education, along with the barriers that hinder the successful use of artificial intelligence technologies in language education.

It is a puzzling challenge why some language learning outcomes, benefits, lean towards the conservative side when it comes to AI tools and methodologies. These inclusions in the educational framework provided by AI require further study, especially with the unique societal and contextual realities of Uzbekistan that dominate the region.

To promote informed guidance for TESOL instructors, the adoption of AI into the curriculum arises as an essential problem of research and practice, which needs to be dealt with scientifically.

This study puts forth key guidelines towards fostering innovation in teaching technologies, thereby enhancing the learning experiences and outcomes or achievements of learners not only in Tashkent but also TESOL instructors face administrative hurdles.

Meeting the objectives set forth through addressing these challenges aids the development of tailored strategies and resources designed specifically for the effective application of AI technologies by TESOL teachers in enhancing language learning activities and outcomes.

In support of TESOL teachers, the following questions are the focus of research and practice:

1. What is the level of awareness of instructors about AI-assisted teaching at the university?
   It is important to look into what TESOL instructors now know and understand about AI-assisted instruction. The research seeks to determine their level of knowledge and comfort with AI tools and technologies that can be applied to language training.
2. How do TESOL instructors adopt AI-assisted teaching at the university level?
   The study focusses on the strategies and methods employed by TESOL instructors to incorporate AI-assisted instruction into their lesson plans. Its goal is to find the precise methods, resources, and instruments that teachers employ and how they work them into their lesson plans.
3. What challenges do they face when trying to use AI-assisted tools in their classrooms?
   Addressing and minimizing these concerns requires an understanding of the challenges and barriers faced by TESOL instructors. Finding the obstacles that prevent AI-assisted technologies from being implemented effectively—such as technical issues, a lack of knowledge, a lack of resources, or a resistance to change—is the main goal of this question.
4. How do sociocultural and ethical considerations affect the views of TESOL teachers towards integrating AI into language instruction?

The application and acceptance of AI in education technologies are undoubtedly influenced by socio-cultural and ethical issues. The aim of this study is to determine how the AI-enabled teaching techniques of TESOL teachers are affected by cultural, ethical, and social values.

This study seeks to address the issues by analyzing the perceptions and attitudes of TESOL teachers in regard to AI teaching. The findings will contribute significantly to

highlighting the uses of AI in teaching and the problems and difficulties that are experienced by the teachers.

The study will analyze the sociocultural and ethical aspects of AI adoption and aid in forming a more complete understanding of educators' perspectives on AI-powered tools. This issue is crucial because it attempts to achieve formulated policies and plans that will steer TESOL educators toward the use of AI tools for facilitating language instruction and improving educational results.

The outcomes of the study will also aid in the formulation of new professional development programs, educational policies, and institutional guidelines designed to foster AI competency and its integration into TESOL instruction. In this way, the constructive possibilities of AI technologies can be fully utilized in language learning and teaching for educators and learners alike.

Methodology

Qualitative research was used to examine how TESOL teachers used AI-assisted teaching at a University in Tashkent and to capture detailed data to understand instructors' perspectives, insights, and experiences which were thematically analyzed.

The subjects of the study were TESOL 26 instructors from a university in Tashkent who had different levels of experience with AI-assisted teaching. They were purposefully sampled to aim for diversity.

During the data collection period, I intended to gather a variety of materials such as transcripts of interviews, audio or video recordings, and reflexive journals which provided rich

information about how AI-assisted teaching is adopted by the TESOL instructors. To ensure a comprehensive description of the degree of acceptance of AI-assisted teaching by TESOL teachers, I utilized triangulation by collecting multiple types of data including reflexive written notes, audio-recorded interviews, and survey reports. As highlighted by Denzin (1978), with triangulation, the findings may be more thoroughly examined from different perspectives by using multiple data sources which enhances the validity and reliability of the findings. Through interviews that capture teachers' thoughts, attitudes, and experiences with the integration of AI, the research achieved in-depth qualitative insights.

Written reflective notes also offered instructors' thoughtful reflections, recording their changing perspectives, difficulties, and achievements in implementing AI-assisted techniques. Making use of these various data sources improved the findings' validity and provided a more comprehensive, nuanced knowledge of AI integration in TESOL training.

The transcripts from the interviews were interpreted thematically in search of common themes, categories, and patterns. The data set needed to be coded to generate the initial themes, which had to be refined through iterative analysis (Garib, 2022; Pack & Maloney, 2023). To guarantee anonymity and privacy, each participant was provided informed consent prior to data collection. The report of the study was qualitative in nature and, therefore, strived for openness regarding the collection, analysis and interpretation of qualitative data.

The goal of this qualitative approach was to enable instructors from Tashkent to understand the delicate details of AI-assisted teaching and the reasons affecting technological integration into language teaching and education. This helped to better comprehend the level of understanding determining technology integration in language teaching and education.

Discussions & Impact in the Field

This project will add valuable findings regarding the pros and cons of employing AI in relation to TESOL instruction. This study could add understanding around the experiences and perceptions of TESOL instructors, which will help frame policies for effective AI deployment in language teaching.

This research is important for transformative education because it fosters invention, diversity, inclusivity and fairness in education (Bahari et al. (2022). Providing AI tools to TESOL teachers can enhance the language learning opportunities and outcomes for students in Tashkent and beyond. This work deepens understanding while guiding future research, policy decisions, and advocacy. It contributes to the growing concern and literature on artificial intelligence in education.

By analyzing the integration of AI tools into educational pedagogy through my research, I believe we can gain new perspectives that could transform teachers and students' experiences. As someone devoted to this initiative, the prospect of advancing language education for students in Tashkent and beyond makes the project incredibly meaningful. By comprehending the possibilities and challenges of artificial intelligence technology in TESOL instruction, we can understand how AI may be incorporated into teaching, and we can establish conditions which will better equip the students for the digital age.

Through careful revision of the research process and careful matching of data collecting and analysis techniques to my research questions and goals, I am able to provide insightful information about the adoption of AI-assisted teaching among TESOL instructors in the university setting of Tashkent.

The use of AI-enhanced teaching tools by TESOL instructors in Tashkent was the focus of this qualitative research study, which has profound consequences for both transformative education and the educational system as a whole. Integrating AI into language instruction creates transformative education awareness about opportunities and limitations (Alhalangy & AbdAlgane, 2023). The research encourages instructors to adopt AI-assisted instruction, thereby fostering transformational pedagogical practices that serve a diverse range of learners (Hazaymeh et al., 2024).

This study enriches the understanding of the AI-language instruction network within the scholarly community by exposing complex TESOL teachers' perspectives and experiences with AI (Garib, 2022). It adds to the growing literature on effective AI utilization in teaching and learning, thus spurring innovation and research in educational technology (Karataş et al., 2024).

The study fosters transformative education by promoting change through diversity and equity in language learning. It reveals gaps in the scholarly community and shapes future research aims by supporting equitable access to quality education and academic opportunities.

The research's participants and findings pertaining to AI-assisted teaching and TESOL instruction from Tashkent can be disseminated using a variety of digital media channels.

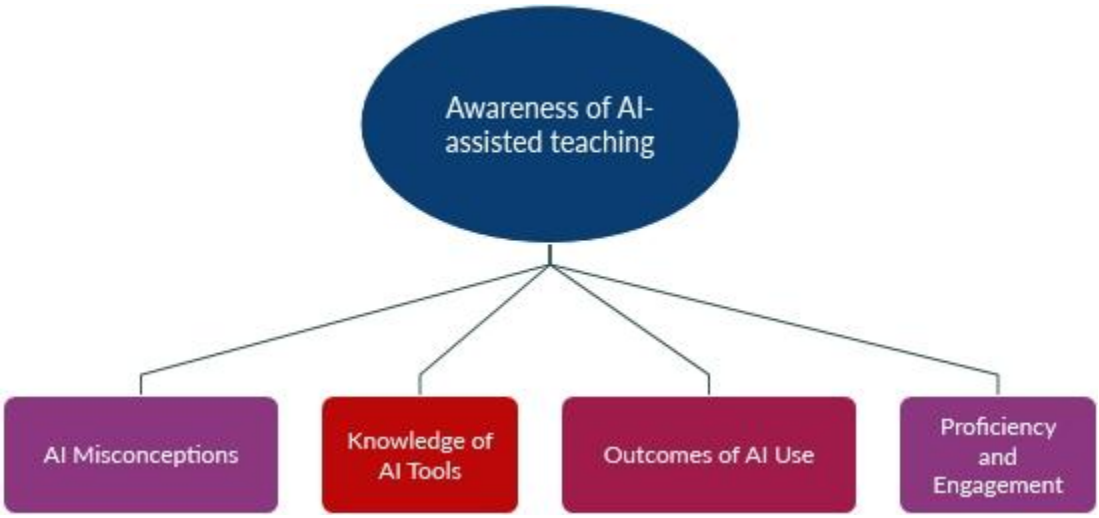
I will continue to use my professional website as it has been incredibly helpful in sharing my interests and accomplishments. Besides that, I plan on creating YouTube videos to share on Instagram, Facebook, and LinkedIn. The TESOL professionals and other educational members will be able to engage with the research study more if my findings are distributed through different digital media, as they will be more inclined to engaging discussions. Also, my innovative approaches to teaching languages will be enhanced by these digital means.

This chapter outlines the results from the AI- assisted teaching adoption study conducted on TESOL instructors at a University in Tashkent. It includes data from the surveys, semi-structured interviews, and reflexive notes which were analyzed using thematic analysis. The results of every analysis are considered credible and deep by using methodological triangulation and insights from different types of data. Findings are arranged in relation to the four guiding research questions. The discussion incorporates other appropriate literature and theories, such as the Technology Acceptance Model (TAM) and Social Constructivism. The first research question checks the awareness of AI assisted teaching among TESOL instructors.

Research Question One

Figure 3.

Awareness of AI Assisted Teaching.



The chart provided above illustrates the code derived from the participants' interview responses.

The first research question analyzed the degree of awareness TESOL instructors have in relation to AI powered tools for instruction. Thematic analysis under this category uncovered four key subthemes: AI Misconceptions, Knowledge of AI Tools, Outcomes of AI Use, and Proficiency

and Engagement. These themes were developed from participants' responses to ensure credibility and validity to the data by using their own words from the interviews.

AI Misconceptions

"It's a word of mouth thing... someone discovers something and shares it with the group." (P1) "AI is like a people-pleaser person, where it does its best to provide answers, no matter what." (P15) "AI uses extra formal vocabulary... it really bugs me." (P15) "I discovered a student was using AI for summarizing articles, but I wasn't sure how it worked." (P26) "Turnitin cannot tell this, we can't prove that this is not their work." (P18) "Before ChatGPT, many teachers perceived AI as a threat." (P25)

Knowledge of AI Tools

"ChatGPT, Quillbot, Grammarly, SIC AI." (P15) "Padlet.com, Suno.com (SUNO)." (P16) "Diffitme, Almanac, Elicit, Gemini." (P21) "Rightless AI." (P22) "ChatGPT, Zip Seek, Jira, MKI." (P24) "ChatGPT, Wheelbot, online paraphrasing tools." (P25) "Slidesgo... a website for making slides." (P26)

Outcomes of AI Use

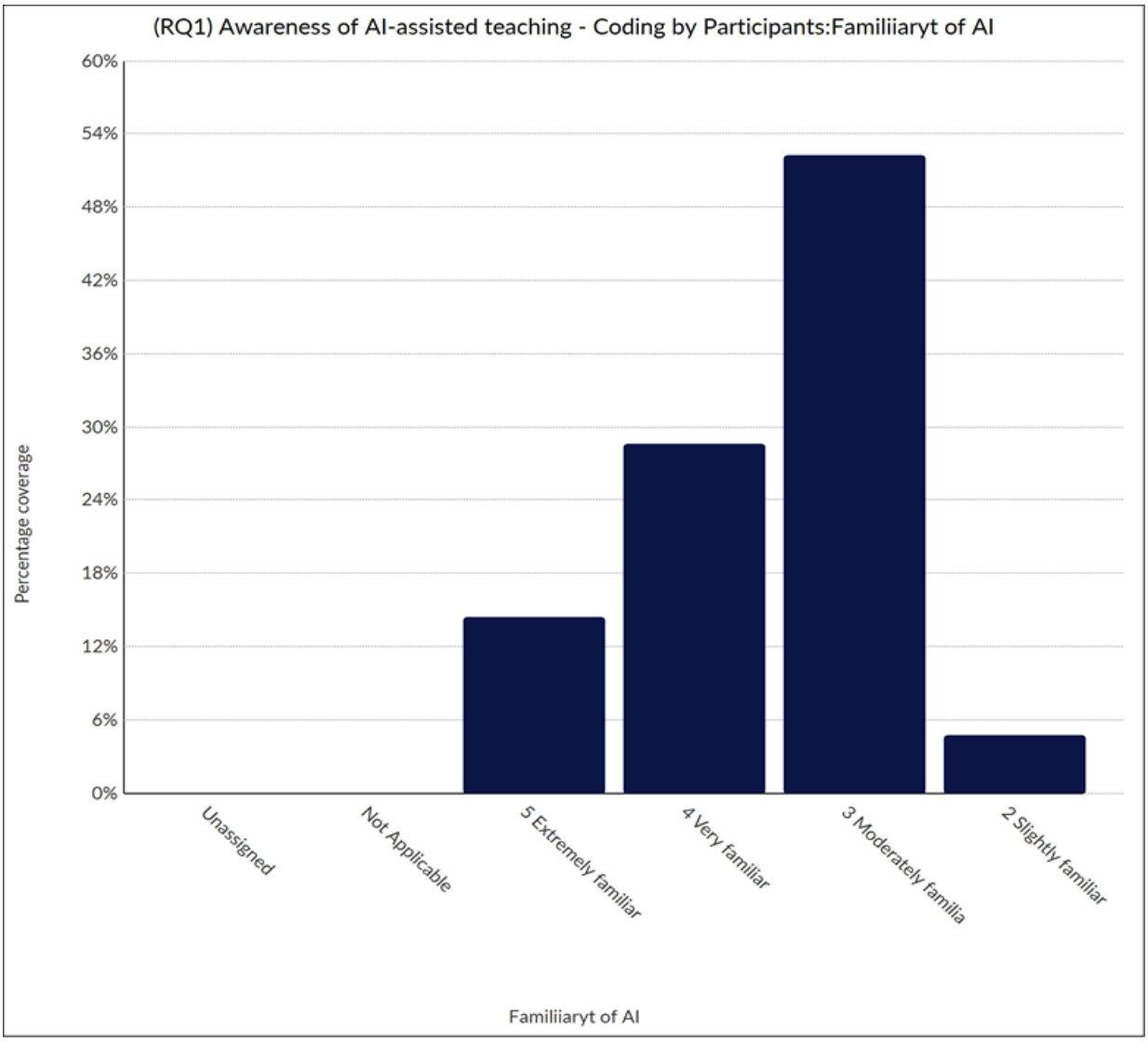
"It gives good suggestions... it's like a second brain." (P15) "It made a little picture... I could get a sense of whether most of them felt confused or confident." (P16) "It helps me to realize my ready idea... speeds up the process." (P23) "I can take a look at the activities that AI can suggest." (P18) "AI is good at preparing activities, especially using visuals." (P24) "It helps in structuring ideas and generating examples." (P25) "It's easy to create presentations... That's what I usually use it for." (P26)

The interview data indicated that instructors became aware of AI tools through students, social media, or conversations with peers instead of through training. Many instructors claimed that they began AI exploration only after noticing how students were utilizing it. A few participants had attended professional workshops, such as TESOL France and Access Alumni, but these cases were rare.

According to the Technology Acceptance Model (TAM), perceived ease of use is important for the adoption decision. Participants with greater AI tool awareness and confidence reported conducting their own experiments. Most did not pursue awareness systematically; instead, they shaped their perceptions through social interactions, supporting social constructivist perspectives on learning as rooted in community practices.

Figure 4.

Research Question 1 Familiarity of AI



Familiarity with AI	Percentage coverage
Unassigned	0.00%
Not Applicable	0.00%
5 Extremely familiar	14.43%
4 Very familiar	28.55%
3 Moderately familiar	52.25%
2 Slightly familiar	4.77%

As can be seen from the bar chart and table, the quantitative data gathered from the Qualtrics survey indicated that participants self-assessed their familiarity with Artificial Intelligence (AI) on a scale from 1 to 5, with 1 being “not familiar” and 5 representing “very familiar”. This data showed that instructors’ AI tool familiarity varies across instructors. The majority in this case selected “Moderately familiar” (54%) followed by “Very familiar” (29%) and “Extremely familiar” (12%). A smaller percentage (5%) regarded themselves as “Slightly familiar.”

The survey results reflect some of the qualitative themes that were highlighted previously, especially “Proficiency and Engagement” subtheme where participants shared that they “actively” learned about AI tools independently without any formalized training. This phenomenon of self-directed learning explains the large proportion of participants who are moderately or very familiar and suggests that level of familiarity is largely the result of personal initiative rather than forced institutional frameworks.

Quantitative data gives a clearer perspective on the instructors' awareness levels and deepens the qualitative findings. Selected interview subjects mentioned that TESOL instructors, at a minimum, know how to utilize AI resources, which confirms their understanding. This statement confirms the need to integrate formulated training along with TESOL context resources in order to improve the instructors’ baseline understanding and capability regarding AI-enabled tools and systems.

In addition, aligned with the Technology Acceptance Model (TAM), these results point to perceived ease of use as a strong factor influencing the instructors’ engagement levels, as shown

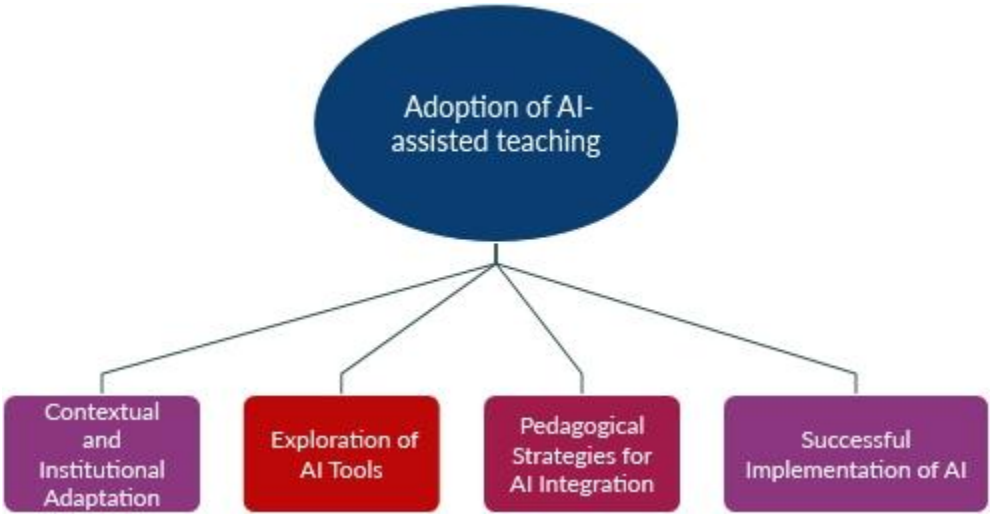
by their voluntary effort to learn the AI tools and familiarize themselves with them at a basic, informal level. Moreover, the use of informal information channels among the instructors, including social interaction and personal curiosity, supports the view of learning as a social constructivism.

Thus, the combination of qualitative thematic analysis and quantitative surveys brought to light the advanced awareness and interaction level of instructors with AI-assisted teaching, revealing possibilities for further professional development on both individual and organizational levels.

Research Question Two

Figure 5.

Research Question 2.



The second research question explores the adoption of AI tools in teaching practice by TESOL instructors. Thematic analysis uncovered the following codes and the same words from participants interview to ensure validity and credibility.

Contextual and Institutional Adaptation

"We are encouraged by the university to try out some digital tools, but there is no centralized training." (P3) "At our institution, AI is being discussed but not fully implemented." (P7) "Uzbekistan is not quite ready yet to adopt different types of AI tools." (P19) "Our policy forbids using AI in such instances." (P17)

Exploration of AI Tools

"I tried different tools, including Padlet and Suno, and settled on the one that I thought was okay." (P16) "I experiment with as many as possible and then I see which one produces what I want." (P23) "I usually go to Google and discover whatever AI tools I need." (P26) "I use AI like

for quizzes... AI makes like quizzes in like 10 min." (P1) "I attended webinars on the role of AI in education." (P18)

Pedagogical Strategies for AI Integration

"I ask students to give prompts to AI to explain their mistakes rather than simply correcting them." (P21) "I use AI for preparing materials, handouts, reading sheets, and abstracts." (P21) "Using AI to generate graphics or songs for instructional purposes." (P16) "I use Grammarly and ChatGPT to check assignments for structural issues." (P20) "We create slides or tests using AI, but I always double-check them." (P5)

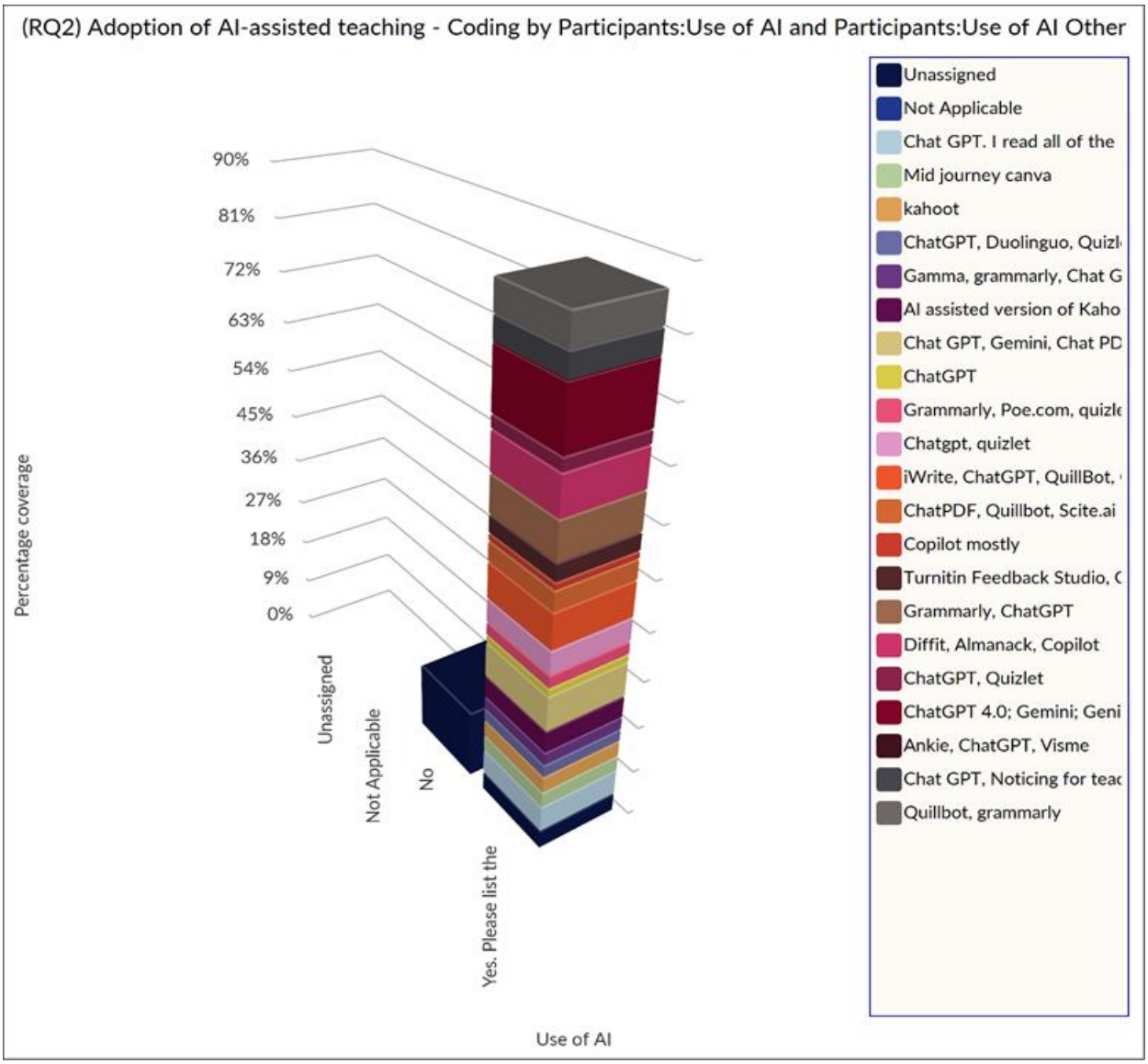
Successful Implementation of AI

"It speeds up the process... helps me to realize my ideas." (P23) "Creating rubrics with Almanac is great because it has standards already installed." (P21) "AI is good at preparing activities, especially using visuals." (P24) "I use AI for generating some questions, maybe some leading questions for the topic." (P26)

The Actual Use (AU) of AI In Instruction was primarily for practicality and assistance. Instructors used AI to improve efficiency, not to take over vital instructional functions. In TAM, perceived usefulness (PU) levels were high in terms of managing administrative work, but mixed concerning pedagogy. There was a clear effort to integrate technology while keeping human control and input to keep a balance in usage of AI.

Figure 6.

RQ2. The usage of AI tools.



Use of AI	Percentage coverage
Unassigned	0.00%
Not Applicable	0.00%
No	13.33%
Yes. Please list the tools you are using	86.67%

The bar chart and table reveal the new insights regarding AI tool adoption practices in teaching among TESOL educators. Responses to the survey question, “Do you use any AI tools in your teaching?” suggested that a comprehensive AI engagement was occurring among instructors. The chart also shows the tools such as ChatGPT, Grammarly, Quizlet, Copilot, Midjourney, Canva, and Almanac that were provided by participants as AI tools being utilized in their teaching practices.

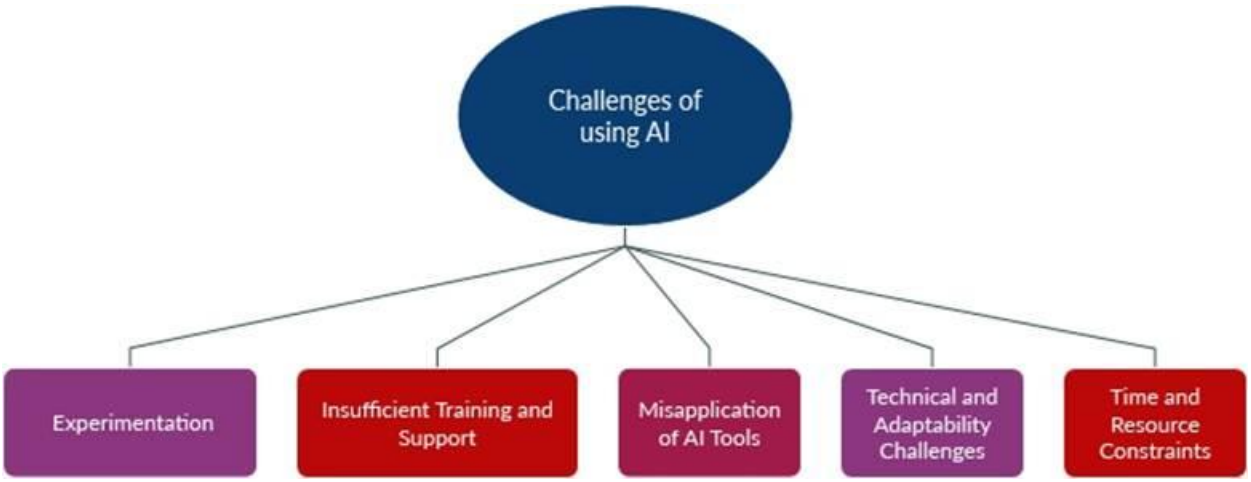
Instructor responses indicated that AI was most frequently used in the course planning, material creation, and administrative work, suggesting that AI’s role was to assist rather than replace traditional instructional activities. This is consistent with the Technology Acceptance Model (TAM), according to which the perceived usefulness has an especially critical role on instructors’ decisions to implement specific technology tools for teaching and non-teaching administrative duties.

According to the table's quantitative data 86.67% of participants chose "Yes", which gives a thorough description of the AI technologies used. This information complements the qualitative data by demonstrating the scope of adoption. It seems that AI technologies are being incorporated, although carefully and in a developing way, driven more by a sense of necessity and educational value than by the need to enforce regulations. These findings highlight the necessity of targeted professional development and institutional support to improve and expand the efficient use of AI technology in TESOL contexts.

Research Question Three

Figure 7.

Challenges of Using AI.



Challenges to AI Integration

The third research question uncovers the challenges that TESOL educators have when attempting to adopt AI tools. The following codes were generated from the results of the interview with participants. Responses from each participant's interview provided to ensure validity and credibility.

Experimentation

"I tried to generate visuals, reading comprehension questions, and writing prompts with AI." (P2) "I try different tools, compare outputs, and then see which one works best for me." (P13) "I did a lot of self-research and tried various tools." (P21) "I started experimenting with quizzes generated by AI tools." (P6) "I'm continually testing new applications to find the most effective ones." (P11)

Insufficient Training and Support

"No formal training, learning through self-exploration." (P25) "I have no official training or professional development related to AI." (P26) "There is a need for structured training on how to properly use AI in education." (P21) "We haven't received systematic guidance on AI." (P14) "Training sessions would significantly help us use AI better." (P8)

Misapplication of AI Tools

"AI doesn’t follow rubrics accurately." (P21) "The same file uploaded several times gives different feedback." (P23) "Students may become overly dependent on AI tools." (P25) "AI sometimes produces inappropriate or incorrect content." (P7) "Misuse of AI by students makes evaluation challenging." (P10)

Technical and Adaptability Challenges

"ChatGPT doesn’t work well at night." (P24) "PDF files are not accessible by ChatGPT... it seems not to access what's inside." (P23) "I am more of a traditional teacher and learner, so using AI is a challenge." (P26) "Connectivity issues frequently disrupt the use of online AI tools." (P4) "Some AI tools have interfaces that are difficult to navigate." (P9)

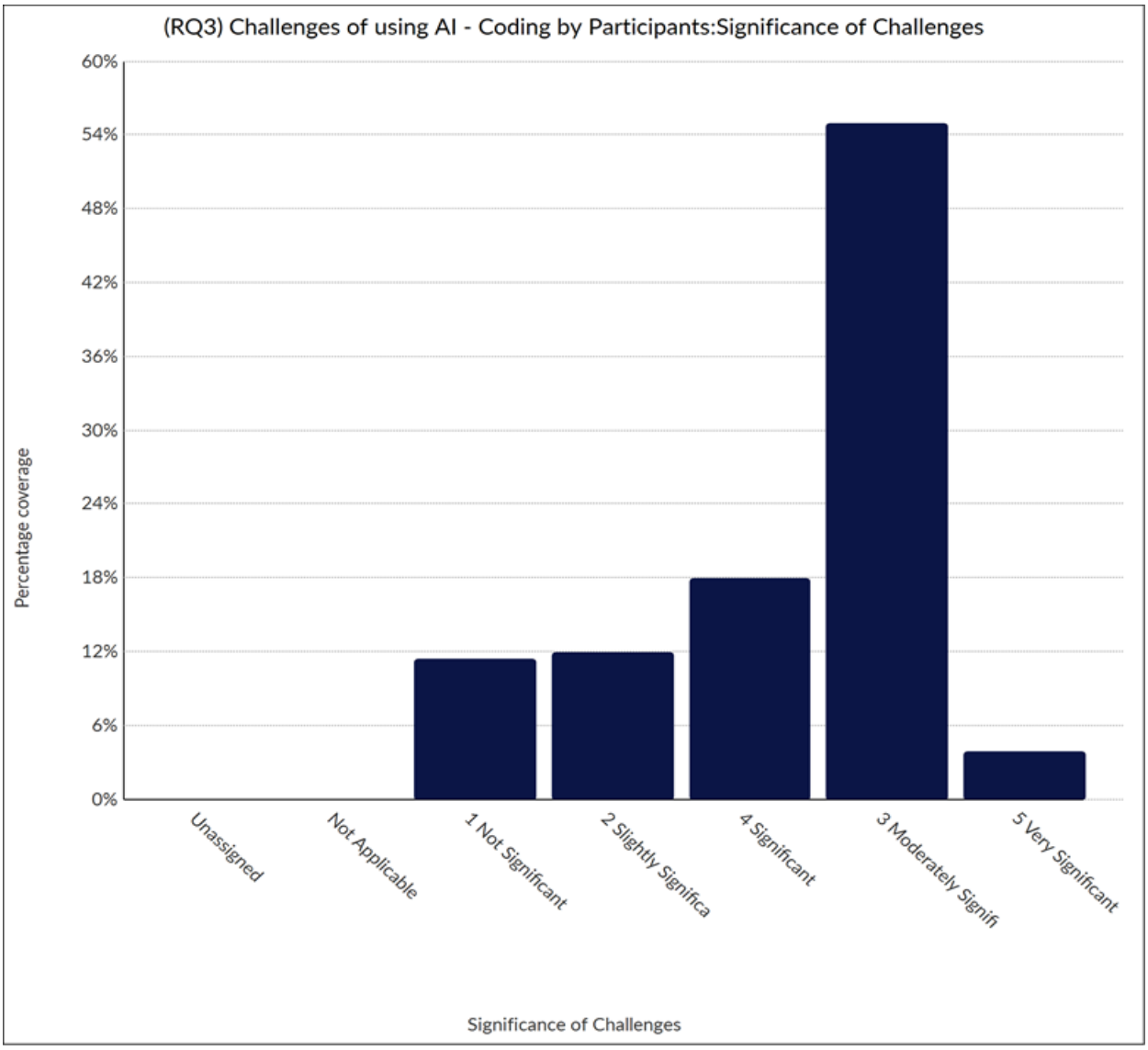
Time and Resource Constraints

"It takes time to learn how AI works and what it can offer." (P25) "Sometimes features are not for free, which limits their usage." (P25) "I try looking for the website, but I'm not sure how it works." (P26) "We don't have enough time allocated to properly explore AI tools." (P5) "Limited resources and funding restrict our access to advanced AI tools." (P17)

The definition of PEOU is from the viewpoint of ease of use was restricted by gaps on technology and the institutions. Participants highlighted the need for attention regarding moral and advisory roles. Social constructivism accounts for how these issues are shaped by sociocultural factors-- barriers such as Uzbekistan's late access to AI in 2023 and absence of a coherent national strategy.

Figure 8.

RQ3 - Challenges of Using AI



Significance of Challenges	Percentage coverage
Unassigned	0.00%
Not Applicable	0.00%
1 Not Significant	11.37%
2 Slightly Significant	11.91%
4 Significant	17.92%
3 Moderately Significant	54.93%
5 Very Significant	3.87%

As can be seen from the given charts, the significance and degree of challenges posed to TESOL instructors in adopting AI techniques for teaching was evaluated at a range of 1 (Not Significant) to 5 (Very Significant). Most participants perceived these challenges as “moderately significant” (54%). However, there were considerable proportions that also viewed the challenges as “Significant” (18%), “Slightly significant” (12%), and “Not significant” (11%). Only a small fraction (5%) deemed the challenges as “very significant.”

These findings support the qualitative themes that have been identified earlier regarding the lack of training and support”, “Technical and Adaptability Challenges” and “Time and Resource Constraints subthemes”. The effect of these challenges is evident from the reported "moderate significance," particularly with regard to the instructors' actual teaching situations.

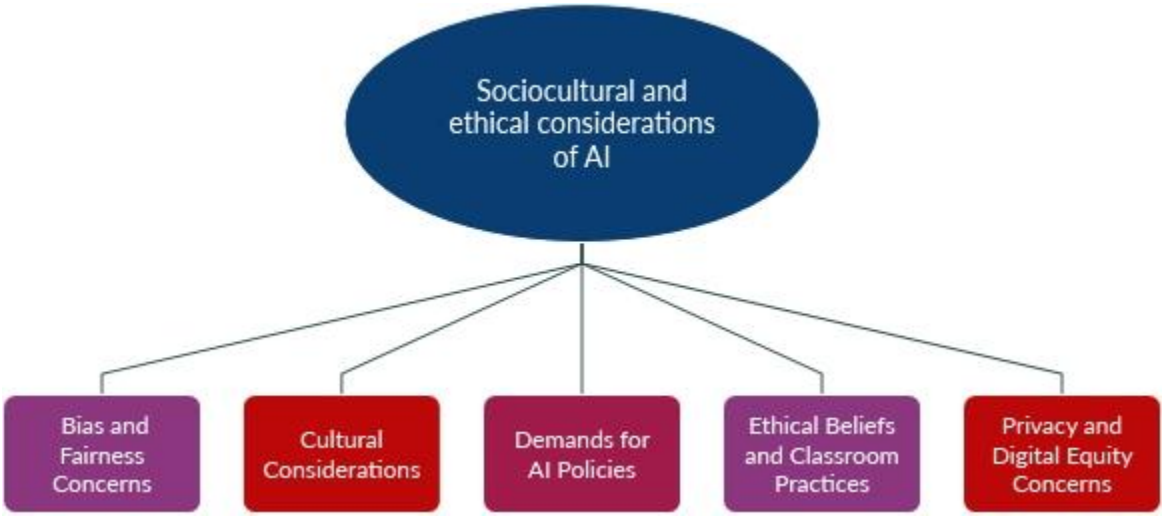
This type of evidence strengthens the qualitative data by listing the insufficient AI integration. TESOL instructors freely recognized this as a problem through the integration of AI technology into their own teaching practice. Even though there are considerable obstacles it appears from the data that there is a realistic limit, which suggests that these strains could be lessened with some targeted training and institutional support.

These findings, as expected, support the Technology Acceptance Model (TAM), which indicates that barriers in the defined support AI instructors' perception of ease-of-use impacts acceptance and sustained adoption. Addressing these concerns through organized professional development programs, adequate technical assistance, and appropriate materials could help resolve these issues and improve instructors’ AI teaching practices.

Research Question Four

Figure 9.

Socialcultural and Ethical Considerations of AI



The last research question was focused on the sociocultural and ethical dimensions shaping instructors' perceptions towards AI. The following codes were generated from the results of the interview with participants' responses and exactly same statements were also provided.

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Bias and Fairness Concerns

"Students may become overly dependent on AI tools." (P25) "ChatGPT doesn't have a female voice, which may be considered gender discrimination." (P24) "Some students heavily rely on AI-generated content without understanding." (P12) "AI-generated materials might be biased or culturally insensitive." (P18) "The unfair advantage AI gives to some students creates inequity." (P7)

Cultural Considerations

"Uzbekistan is not quite ready yet to adopt different types of AI tools." (P19) "Our people are not ready to use it appropriately." (P22) "Before ChatGPT, many teachers perceived AI as a threat." (P25) "Cultural hesitation exists towards integrating technology fully." (P5) "Some colleagues still view AI as unnecessary or potentially harmful." (P14)

Demands for AI Policies

"There should be clearer guidelines and policies." (P23) "Institutions should position themselves in terms of how AI is utilized in the classroom." (P25) "There should be tools to help teachers detect plagiarism and AI usage." (P22) "Clear institutional policies would help teachers implement AI responsibly." (P10) "We need official guidelines to standardize AI use across courses." (P17)

Ethical Beliefs and Classroom Practices

"I explain the importance of giving credit when using AI." (P26) "I warn them about ethical issues." (P26) "I provide detailed feedback and comments when they misuse AI." (P26) "P20 implemented a 'traffic light' system." "I openly discuss ethical implications and encourage transparency in AI use." (P8) "I teach students to be transparent about their use of AI." (P9)

Privacy and Digital Equity Concerns

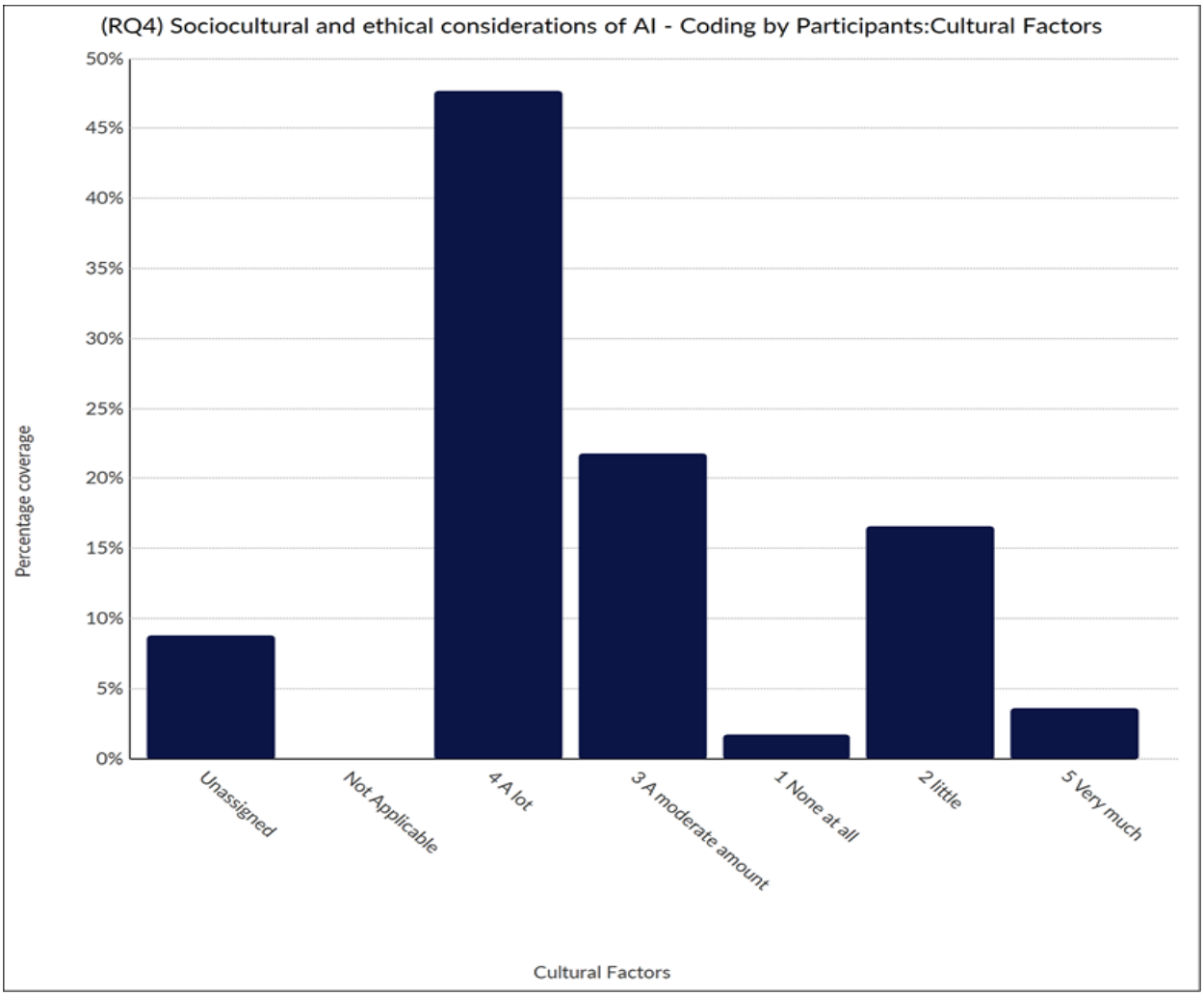
"ChatGPT doesn’t have a female voice, which may be considered gender discrimination." (P24) "AI tools may have privacy issues, especially in terms of data security." (P24) "Public domain issues—once shared, content is no longer controllable." (P23) "I'm concerned about students'

data being used without proper consent." (P15) "There might be privacy risks when integrating certain AI platforms." (P6) "Data security and privacy remain a significant concern for us." (P3)

AI was molded by the social and institutional ATU biases. Instructors emphasized ethics, transparency, and authenticity. Constructivist approaches cover this idea well; paradigms regarding appropriate AI utility were formulated based on social and cultural contexts, including institutional frameworks alongside colleagues' practices and classroom dynamics.

Figure 10.

Social cultural and Ethical Considerations of AI



Cultural Factors	Percentage coverage
Unassigned	8.74%
Not Applicable	0.00%
4 A lot	47.65%
3 A moderate amount	21.75%
1 None at all	1.67%
2 little	16.60%
5 Very much	3.59%

The data from the charts above shows the extent of measures to which TESOL instructors perceive AI cultural components to impact their adoption of the tools, using a scale of 1 (Not at all) to 5 (Very much). Many respondents, approximately 47%, marked the point in the middle of the range signifying ‘A lot’ of influence from cultural considerations. Equally large proportions around 25% reported a ‘Moderate amount’ of influence. Smaller percentages designated that cultural influence is ‘Little’ at approximately 18%, and ‘Very much’ around 6%. Very few respondents advanced the notion that inclusive cultural considerations emerge to no influence at all.

These numbers support the qualitative themes, especially "Cultural Considerations," where participants expressed significant concerns about societal perceptions and readiness cultures surrounding the integration of AI into education, as well as social surrounding and systemic challenges. In light of the prevalent cultural and societal frameworks, beliefs, practices, and the application of AI technology in education, the majority's recognition of a significant impact is equally significant.

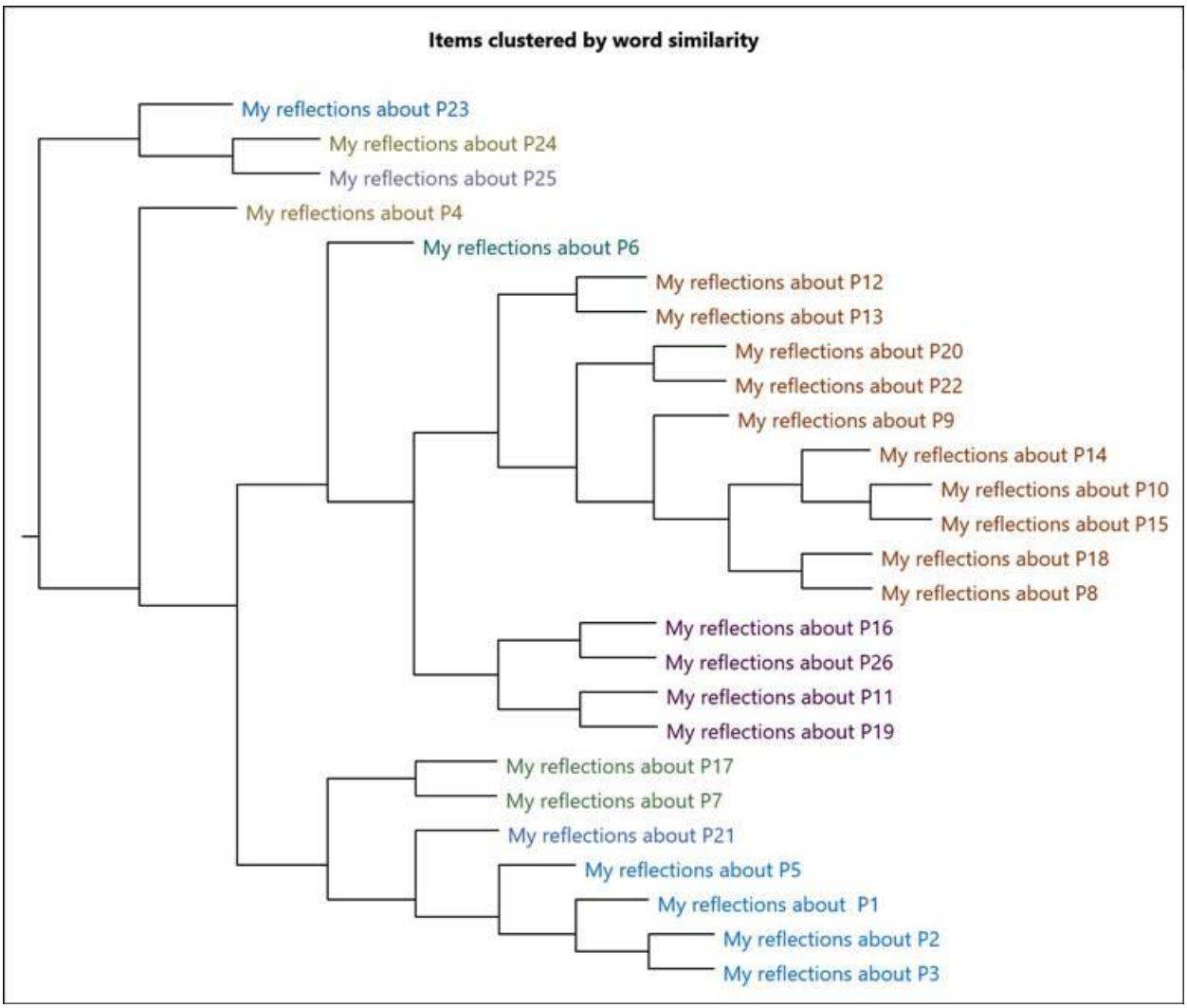
These results, when combined with qualitative reports, demonstrate the shortage of culturally appropriate professional development and policy framework methods. From the standpoint of social constructivist principles, which argue that learning, particularly when it comes to the adoption of technology, depends on the surrounding society, it was also highlighted that ethical issues and transparency within institutional regulations are necessary.

In summary, these discoveries underscore the need for effortless oversight and guidance while driving deeper ethical and sociocultural conversations about AI adoption within education systems, institutions, and cultures – highlighting the need to advance the case for clearly

advanced policies that welcome ongoing discussion between teachers, learners, and the institutions.

Figure 11.

Items Clustered by Similarity



Memo Clustering and Reflection Trends

To aid the interpretation qualitatively, the researcher applied NVivo's cluster analysis to organize reflexive memos by similarities in wording. The dendrogram showed several salient patterns. The reflections of participants P23, P24, and P25 highlighted ethical responsibility, issues of intellectual property, and controlled experimentation, which form a cohesive cluster. Another sizable cluster encompassed participants P12 to P22, who reported overlapping concerns regarding student abuse, AI's constraints, and the provision of ethical oversight. In parallel, the reflections of P1 to P5 who considered themselves early adopters AI's foundational applications were riskier in tone.

These groups validate the common themes across the dataset while showing some differences in instructor interactions with AI. Clustering further demonstrated how some educators' approaches shifted with regard to their experience, institutional setting, or prior contact with AI technologies. The reflexive memo analysis leads us to conclude that, although attitudes differ, in general, most instructors engage with AI cautiously driven by ethical considerations.

Figure 12.

Word Cloud of Frequently Repeated Words.

Word Cloud and Coding Matrix Insights

A word cloud was created from the 26 reflexive memos in order to further triangulate the data. Some of the key terms highlighted included “students,” “using,” “tools,” “ethical,” “concerns,” and “training.” Consistent occurrences of these words express an emotional and pedagogical impression of instructors across the entire dataset. The dataset also captures frequent mentions of “careful,” “feedback,” “approach,” and “learning,” which indicates the tempered mindset instructor would take in AI integration. In addition, terms “need,” “may,” and “must,” portray a willingness to take responsibility for instructors who, while bound to take action, seem to require direction.

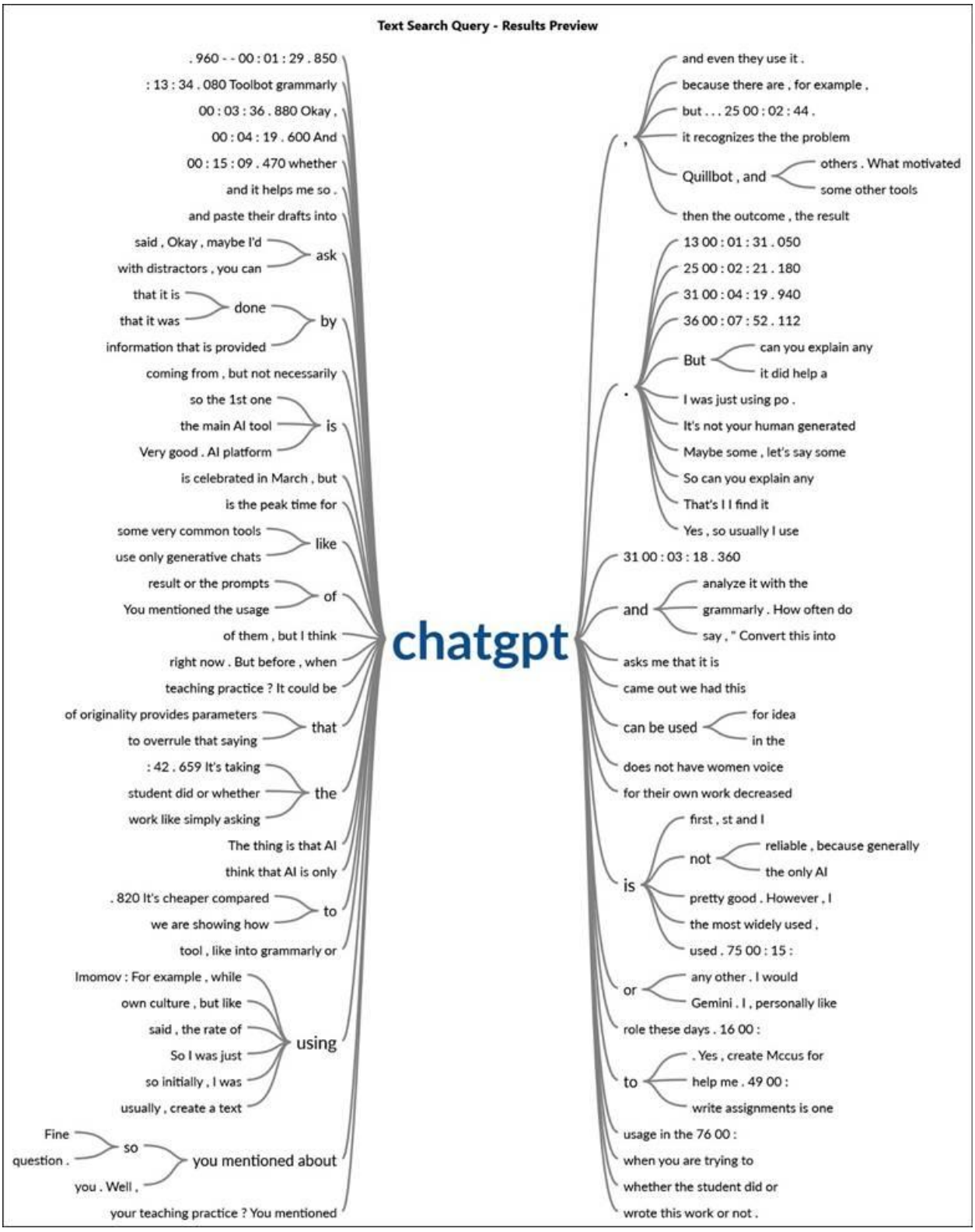
Also, a matrix coding query was used to show the response distribution along the four central guiding research questions. It became clear from visual response metrics that most participants seem to be addressing all areas of research. This also showed a considerable spike in responses related to both challenges and ethical considerations (RQ3 and RQ4). It can be inferred from this that there seems to be active awareness and adoption taking place, yet the

discourse-and arguably the most reluctance-appears to center around ethical concerns and instructional limits.

These images reveal the thematic results by verifying which matters are most prevalent in instructor talk. Coupled with the cluster map and reflexive memos, they amalgamate to form a complex picture of AI usage where instructors are purposefully experimenting, facing challenges, and attempting to find collective solutions.

Figure 13.

Text Search Query - Results Review



ChatGPT Text Query Results

A text search was completed using the word "ChatGPT" to analyze its mention in participant's interviews. The resulting word tree was very rich in contextual phrases. Participants defined ChatGPT as useful for brainstorming, editing, and content simplification. Some were critical of the tool's restricted outputs such as hallucinated alt texts or gendered descriptions (e.g., absence of a woman's voice). Others pondered the impact of the tool on student work – supporting independent learning or fostering dependency.

There were also many instances of phrases like "can be used for idea," "own culture," "tool like into grammarly," and "students decreased for their own work," which suggest more subtle understanding of the phenomenon. These comments demonstrate that instructors will be concerned with academic integrity and student autonomy even as they appreciate the advantages of ChatGPT.

The instructors' hybrid view on using ChatGPT as at once helpful and potentially damaging to authenticity is demonstrated by this word tree. It resonates with other dimensions in this case: usefulness of tools, ethical conflict, and persistent need for vigilance.

Overall Discussion

Findings confirm that while TESOL instructors are looking into AI, its adoption is slow and contextually focused. For many, the integration of AI technologies is based on social circles and personal trial and error. Enthusiasm aside, persistent issues such as inadequate training, inconsistent results, and unclear ethical limits still exist.

Both TAM and Social Constructivism proved valuable in analyzing the findings. Perceptions of value, social culture, and ease of access strongly influenced instructors'

willingness to adopt AI. Adoption of AI technologies was not made based solely on availability; rather, they chose to utilize AI technologies when they find them relevant and accessible within their teaching ethos and context.

The study underscores the need for:

- Sustained workshops on AI prompt engineering
- Policy and ethical frameworks for AI use
- Guidelines for context-sensitive AI integration strategies
- Platforms for sharing the best practices of peers

Even though there are many studies on AI in higher education, there are not many that specifically concentrate on TESOL educators in Central Asia or Uzbekistan. The real experiences of instructors with AI tools, the challenges they face, adoption methods and their training requirements have not received much attention in research. My research offers important information by offering context-specific insights on how TESOL instructors in Tashkent interact with AI, the challenges they come across and how they might be assisted.

With the adoption of these strategies, AI has the potential to transform pedagogical frameworks for TESOL instruction in Tashkent and beyond, making its integration adaptable, sound, and ethically managed.

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Appendix A: Codes

Name	Description
(RQ1) Awareness of AI-assisted teaching	1. What's the level of awareness of instructors AI-assisted teaching at the university level?
(Theme) AI Misconceptions	
Misconceptions	
(Theme) Knowledge of AI Tools	
Awareness Sources	
General Awareness	
(Theme) Outcomes of AI Use	
Benefits	
(Theme) Proficiency and Engagement	
Personal Experience	

Technical Proficiency	
(RQ2) Adoption of AI-assisted teaching	How do TESOL instructors adopt AI-assisted teaching at the university level?
(Theme) Contextual and Institutional Adaptation	
Adaptation to Context	
Institutional Context	
(Theme) Exploration of AI Tools	
Application Variety	
Continuous Exploration	
Tool Utilization	
Knowledge of Tools	

(Theme) Pedagogical Strategies for AI Integration	
Integration Strategies	
Student Engagement	
Teaching Approaches	
(Theme) Successful Implementation of AI	
Achieved Success	
(RQ3) Challenges of using AI	What challenges do they face when trying to use AI-assisted tools in their classrooms?
(Theme) Experimentation	
Trial and Error	
(Theme) Insufficient Training and Support	
Lack of Training	

Support Needs	
(Theme) Misapplication of AI Tools	
Misuse of Tools	
(Theme) Technical and Adaptability Challenges	
Adaptability Issues	
Technical Barriers	
(Theme) Time and Resource Constraints	
Resource Limitations	
Time Constraints	
(RQ4) Sociocultural and ethical considerations of AI	How do sociocultural and ethical considerations affect the views of TESOL teachers towards integrating AI into language instruction?

(Theme) Bias and Fairness Concerns	
Bias and Fairness	
(Theme) Cultural Considerations	
Cultural Adaptation	
Teacher Identity	
(Theme) Demands for AI Policies	
Need for Regulation	
(Theme) Ethical Beliefs and Classroom Practices	
Ethical Awareness	
Ethical Instruction	

Ethical Teaching Practices	
(Theme) Privacy and Digital Equity Concerns	
Equity of Access	
Privacy Concerns and Access	