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EXPLORING ENGLISH LANGUAGE TEACHERS' VIEWS ON THE USE OF ARTIFICIAL INTELLIGENCE TOOLS FOR PROMOTING WELL-BEING

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TEZ ÇALIŞMASI ORİJİNALLİK RAPORU

Exploring English Language Teachers' Views On The Use Of Artificial Intelligence Tools For Promoting Well-Being başlıklı tez çalışmamın toplam **55** sayfalık kısmına ilişkin, 2/12/2024 tarihinde tez danışmanım tarafından **Turnitin** adlı intihal tespit programından aşağıda belirtilen filtrelemeler uygulanarak alınmış olan orijinallik raporuna göre, tezimin benzerlik oranı **%11** olarak belirlenmiştir.

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2. Bilimsel etik beyannamesi sayfası hariç
3. Önsöz hariç
4. İçindekiler hariç
5. Simgeler ve kısaltmalar hariç
6. Kaynaklar hariç
7. Alıntılar dahil
8. 7 kelimeden daha az örtüşme içeren metin kısımları hariç

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4/12/2024

Melike SORAL KARAYER

Doç. Dr. Galip KARTAL

BİLİMSEL ETİK BEYANNAMESİ

Bu tezin tamamının kendi çalışmam olduğunu, planlanmasından yazımına kadar tüm aşamalarında bilimsel etiğe ve akademik kurallara özenle riayet edildiğini, tez içindeki bütün bilgilerin etik davranış ve akademik kurallar çerçevesinde elde edilerek sunulduğunu, ayrıca tez hazırlama kurallarına uygun olarak hazırlanan bu çalışmada başkalarının eserlerinden yararlanılması durumunda bilimsel kurallara uygun olarak atıf yapıldığını ve bu kaynakların kaynaklar listesine eklendiğini beyan ederim.

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ABBREVIATIONS

AI: Artificial Intelligence

CLT: Cognitive Load Theory

ELT: English Language Teaching

EFL: English as a Foreign Language

ESL: English as a Second Language

ITS: Intelligent Tutoring Systems

NLP: Natural Language Processing

PD: Professional Development

PP: Positive Psychology

ÖZET

Necmettin Erbakan Üniversitesi, Eğitim Bilimleri Enstitüsü
Yabancı Diller Eğitimi Anabilim Dalı
İngiliz Dili Eğitimi Bilim Dalı
Yüksek Lisans Tezi

YAPAY ZEKA ARAÇLARININ İYİLİK HALİNİ ARTIRMADAKİ KULLANIMINA İLİŞKİN İNGİLİZCE DİL ÖĞRETMENLERİNİN GÖRÜŞLERİNİN İNCELENMESİ

Melike SORAL KARAYER

Öğretmenlerin iyilik hallerinin desteklenmesi, hem bireysel hem de mesleki başarının sürdürülebilirliği açısından hayati öneme sahiptir ve yapay zeka araçlarının (YZ) bu süreçte sunduğu imkanların araştırılması giderek önem kazanmaktadır. İngilizce öğretmenlerinin katılımıyla gerçekleştirilen bu nitel çalışma, YZ araçlarının dil öğretmenlerinin mesleki ve kişisel yaşamlarındaki algılarını, özellikle iyilik halini teşvik etmeye odaklanarak incelemeyi amaçlamaktadır. Türkiye'de gerçekleştirilen bu çalışma, üç temel alana odaklanmaktadır: YZ araçlarının öğretmenlerin iyilik halini nasıl destekleyebileceği, öğretmenlerin YZ'nin mesleki uygulamalar üzerindeki etkisine dair algıları ve eğitimde YZ araçlarının kullanımında karşılaşılan zorluklar ile etik konular. Çalışma kapsamında, çeşitli eğitim kurumlarında görev yapan 10 İngilizce öğretmeniyle yarı yapılandırılmış görüşmeler gerçekleştirilmiştir. Bu görüşmeler, öğretmenlerin özgün deneyimlerini ve derinlemesine anlayışlarını ortaya koyabilmek amacıyla ses kaydı alınarak yürütülmüştür. Görüşmelerden elde edilen veriler transkript edilerek yazılı hale getirilmiştir. Ardından, içerik analizi yöntemiyle sistematik bir kodlama süreci uygulanmış; zaman ve iş yükü yönetimi, iş tatmini, öğrenci katılımı ve etkileşimi, gizlilik ile veri güvenliği gibi temalar ortaya çıkmıştır. Bulgular, YZ araçlarının sınav hazırlama ve materyal oluşturma gibi tekrarlayan görevleri otomatikleştirerek öğretmenlerin iş yükünü azalttığını ve stres seviyelerini düşürdüğünü ortaya koymaktadır. İş yükünün azalması, öğretmenlerin streslerini hafifleterek iyilik hallerine katkı sağlamıştır. Ayrıca, öğretmenler, YZ'nin sunduğu yaratıcılığı destekleyen yenilikçi öğretim yöntemleri sayesinde iş tatminlerinde ve mesleki gelişimlerinde artış bildirmiştir. Bunun yanı sıra, YZ'nin daha etkileşimli ve kapsayıcı öğrenme ortamları yaratarak öğrenci katılımını artırdığı ve öğretmen-öğrenci ilişkilerini güçlendirdiği ifade edilmiştir. Bu etkileşimli yaklaşımlar, öğretmenlerin derslerde daha anlamlı ve etkili iletişim kurmasını sağlamış, bu da başarı hissini ve iyilik hallerini pekiştirmiştir. Özellikle, YZ araçlarının, öğretmenlerin öğrencileriyle daha güçlü bağlar kurmasına ve derslere daha motive bir şekilde katılmasına olanak tanıdığı belirtilmiştir. Ancak, yapay zeka araçları, gizlilik, veri güvenliği ve teknolojinin aşırı kullanımına dair öğretmenlerde bazı endişeler oluşturmuştur. Bu endişeler iyilik hallerine doğrudan olumsuz bir etki yaratmamış olsa da, öğretmenlerin bu araçları kullanırken daha dikkatli olmalarını gerektirmiştir. YZ'nin sağladığı desteklere rağmen, öğretmen-öğrenci ilişkilerinde insani bağların korunmasını destekleyen bir yaklaşımın önemine dikkat çekilmiştir. Sonuç olarak, YZ araçları öğretmenlerin iyilik hallerine fayda sağlarken, bu endişelerin giderilmesi ve öğretmenlerin bu araçları etkin kullanmasına yönelik çalışmalar yapılması, eğitim deneyimlerini geliştirmek ve iyilik halini sürdürülebilir kılmak için kritik öneme sahiptir. Bu doğrultuda, gerekli adımların atılması önerilmektedir.

Anahtar Kelimeler: Dil Öğretmeni, Yapay Zeka, Öğretmen İyilik Hali, İngilizce Dil Öğretiminde Yapay Zeka

ABSTRACT

Necmettin Erbakan University, Graduate School of Educational Sciences
Department of Foreign Language Education
English Language Education Program
Master Thesis

EXPLORING ENGLISH LANGUAGE TEACHERS' VIEWS ON THE USE OF ARTIFICIAL INTELLIGENCE TOOLS FOR PROMOTING WELL-BEING

Melike SORAL KARAYER

Teacher well-being is vital for sustaining both individual and professional success, and the exploration of opportunities offered by artificial intelligence (AI) tools in this context has gained increasing importance. This qualitative study aims to examine English language teachers' perceptions of AI tools in their professional and personal lives, focusing specifically on promoting well-being. The research focuses on three main aspects: how AI tools can support teacher well-being, the perceptions of teachers regarding AI's impact on professional practices, and the challenges and ethical concerns arising from the integration of AI tools in education. Semi-structured interviews were conducted with 10 English teachers working in various educational institutions. Audio recordings ensured the accurate documentation of experiences and facilitated a comprehensive understanding of the participants' insights. The transcribed data were systematically analyzed through content analysis, revealing themes such as time and workload management, job satisfaction, student engagement and interaction, privacy, and data security. Findings indicate that AI tools reduce workload and stress levels by automating repetitive tasks such as exam preparation and material creation. This reduction in workload alleviated stress, contributing positively to well-being. Teachers also reported increased job satisfaction and professional growth due to the innovative teaching methods provided by AI, which also foster creativity. Additionally, AI fostered more interactive and inclusive learning environments, enhancing student engagement and strengthening teacher-student relationships. These interactive approaches enabled more meaningful and effective communication in the classroom, reinforcing a sense of accomplishment and well-being. AI tools were particularly noted for enabling stronger connections between teachers and students, motivating teachers to engage more effectively in lessons. However, concerns about privacy, data security, and over-reliance on technology emerged. While these concerns did not directly harm well-being, they necessitated careful and mindful use of AI tools. Despite the benefits, maintaining human connections in teacher-student relationships was emphasized as essential. In conclusion, while AI tools provide significant benefits to teacher well-being, addressing these concerns and supporting teachers in effectively utilizing these tools are critical for enhancing educational experiences and ensuring sustainable well-being. Taking the necessary steps to ensure the sustainable well-being of teachers is strongly recommended.

Keywords: Language Teacher, Artificial Intelligence, Teacher Well-Being, AI in English Language Teaching

CHAPTER 1

1. INTRODUCTION

This chapter provides an overview of statement of the problem, the purpose of the study and research questions. It also underlines the significance of the study, as well as the assumptions and limitations. In addition, the key terms related to the research are defined to provide clarity and understanding.

1.1. Statement of the Problem

Teachers role in shaping the quality of education in nations is crucial. The foundation of the Turkish Republic placed great importance on teacher training, as reflected in Atatürk's words: ''Teachers, your success will be the Republic's success.'' (Ayas, 2009, p. 2077). Teachers are considered the architects of a nation, and the future of the nation is in their hands (Kumar, 2019). Quality of education is not only depends on the curriculum but also on the commitment of teachers towards their profession (Serin, 2023). Teachers need to be supported and motivated to be able to maintain their commitment to the quality of education and future of the nation. Neglecting teachers could negatively impact the nation's future. Reducing workload and stress enhances their well-being and strengthens their commitment (Bellibaş et al., 2023). Well-being as an important factor for commitment, is most commonly defined by Diener (1984) as happiness, or more specifically, satisfaction with life and the experience of positive emotions. The teaching profession involves a heavy workload, which hinders experiences of positive emotions. As Hasan (2015) notes, teachers encounter numerous stressors in their work. Their minds are occupied with numerous tasks and concerns, including teaching unmotivated students, managing classroom discipline, addressing time constraints and workload demands, adapting to constant change, being evaluated by others, and navigating challenging relationships with coworkers and management. High workload levels can negatively impact teachers' well-being by increasing stress levels, leading to burnout, and disrupting the work-life balance. Teaching is accepted as one of the professions with the highest levels of burnout (Hakanen et al., 2006). Teacher burnout, as well as emotional and mental exhaustion caused by stress and a heavy workload, may lead to reduced motivation, unsatisfactory job performance, and a sense of disconnection. This may lead teachers to perform lower job performance by influincing their existing potential. Improving well-being can protect against burnout (Carroll et al., 2021). As teachers' tasks grow, their well-being becomes increasingly crucial in creating their capacity to carry out their duties effectively. A teacher

with a high level of well-being fosters a positive learning environment, leading to better educational outcomes for both teachers and students. With the advancement of technology, digital tools have been increasingly integrated into education. Teachers have started receiving support from digital tools by incorporating various videos, images, audio files, and online activities into their classroom practices. Especially in teaching English, teachers have been able to use digital tools many times for audio recording, vocabulary learning or repetition of certain texts. Materials are important resources for teachers in assisting students to learn English (Diyanti, 2010). One step ahead of such developments, AI has entered our lives.

In recent years, AI and other technological platforms made many people's life easier and became important. AI is a computer science discipline with the mission to create computer programs that imitate intelligent human behavior and enhance human-like skills (Naqvi, 2020). The tremendous rate of growing development of AI has also started to create an atmosphere of transformation for language educational contexts. Today's teachers are no longer just transmitters of knowledge; they guide and support students in navigating this vast information landscape (Amin, 2023). Following the COVID-19 pandemic, teachers were more familiar with working with digital technologies (Moorhouse, 2021). They can use AI tools in many areas, from lesson planning to assessment. Assessment process can be automated with the help of AI-powered solutions which will save teachers time and lessen their workload (Owan et al., 2023). Such tools have potential to help reduce the burden of repetitive tasks such as grading or lesson planning which would eventually allow teachers to use more of their cognitive resources and time on meaningful teaching activities.

In conclusion, recognizing the importance of teachers' well-being and the potential of AI to support it, this study addresses a critical research gap by exploring how AI tools can enhance teachers' well-being through an in-depth investigation of their perceptions and experiences. Although there are studies on the use of digital tools in English language teaching (ELT), research specifically focusing on AI and its impact on teacher well-being remains limited. Given the rising workload and stress in the teaching profession, especially in post-pandemic educational settings, innovative solutions like AI may offer essential support, fostering a more positive emotional experience for teachers.

1.2. Purpose of the Study

The purpose of this qualitative study is to explore English language teachers' perspectives on the use of AI tools for promoting their well-being. Despite the increasing integration of AI in educational contexts, this area has received limited attention in research. In recent years, the use of technology in education has expanded rapidly, with both teachers and students utilizing AI products to support and enhance various aspects of teaching and learning. While many studies explore AI's effects on academic outcomes and efficiency, few examine its impact on teachers' professional and personal well-being, particularly in the context of language teaching. Through an examination of teachers' perceptions and experiences with AI tools, this study aims to provide insights into whether AI can support their overall well-being, identify challenges in implementation, and address key ethical considerations. This qualitative study seeks to fill the gap in understanding the potential benefits of AI tools for promoting the well-being of English language teachers, an area that has received limited attention in existing research, through the following research questions:

1. How can AI tools be leveraged to effectively promote the overall well-being of English language teachers?
2. What are the perceptions and experiences of English language teachers regarding the role of AI tools on their professional and personal well-being?
3. What are the key challenges and ethical considerations in integrating AI tools for the well-being of English language teachers, and how can these be addressed?

1.3. Significance of the Study

There is a growing discussion surrounding the integration of AI into educational settings, particularly regarding its impact on various aspects of teaching and learning. This study contributes to this broader conversation by examining the role of AI tools in supporting the well-being of English language teachers. By exploring teachers' perceptions with their experiences, this research offers insights into how AI technologies can enhance teachers' professional practice and address challenges in the field of language teaching.

The use of AI in education has become increasingly widespread in recent years, providing new opportunities for both students and teachers. Hockly (2023) discussed the current use of AI in ELT, exploring the opportunities and challenges it presents for students, teachers, and institutions. Ethical issues, learner well-being, and the digital literacies required for teachers and students to coexist in the AI-driven educational landscape, were also considered. However,

while this article focused on the implications of AI for learner well-being and the broader educational context, there remains a gap in understanding the relationship between AI tools and the well-being of English language teachers, which this study seeks to address. Gyawali and Mehandroo (2022) examined the use of AI to improve the teaching and learning of English and analyzed the potential benefits and challenges associated with the use of AI in ELT. Their study demonstrated that AI has the potential to improve the quality and accessibility of ELT; however, they also noted that more investigation is required to fully comprehend AI's contribution to enhancing ELT. While their research suggests that AI could significantly influence education, much remains unknown about how these technologies impact teachers' well-being.

The findings of this study may offer practical insights for educational policymakers, administrators, and technology developers to consider when integrating AI tools that prioritize the needs of teachers. By identifying key factors that affect teacher well-being and the use of AI in ELT, this study contributes to the development of strategies that may support more effective AI integration in educational settings. Additionally, the study emphasizes the importance of addressing ethical concerns to ensure that AI technologies are implemented in a thoughtful and supportive way. This research provides a foundation for future studies on the relationship between AI tools and teacher well-being, aiming to create environments that support both teachers and learners.

1.4. Assumptions

Firstly, it is assumed that the participating English language teachers have had sufficient exposure to AI tools in their teaching environments to form basic opinions on the potential of these tools for supporting teacher well-being. All participants are considered familiar enough with AI to meaningfully discuss its applications in language teaching, with their experiences and views shaped by varied teaching contexts. Additionally, they are expected to have developed certain beliefs about the benefits and challenges of AI in educational settings based on their years of experience, influencing their perceptions of AI’s role in enhancing teacher satisfaction and maintaining work-life balance. Finally, participants are assumed to be aware of ethical considerations surrounding AI, such as data privacy, algorithmic bias, and potential impacts on professional autonomy, which may influence their attitudes toward AI integration and preferences regarding specific AI tools.

1.5. Limitations

The first limitation of this study is that all interviews are conducted only with English language teachers which limits the generalizability of these findings for other educational settings. Consequently, the viewpoints and insights of participants are shaped by a set of cultural, educational, and linguistic contexts in Turkey. As a result, the outcomes might have limited generalizability to language teachers in various cultural and linguistic contexts. Given that this research includes a small number of participants within a specific context, the findings may be less generalizable to other settings. It is critical to recognize these limitations and consider them when evaluating the research findings. These limitations allow for additional exploration and refinement of the study's conclusions in future research attempts.

1.6. Definitions of Terms

Well-being: State of optimal health and satisfaction with physical, mental and social aspects of life. These dimensions include emotional and physical health, social and psychological factors in our community.

Teacher Well-being: Teacher well-being refers to the overall physical, emotional, and psychological state of teachers, encompassing their happiness, job satisfaction, and ability to manage the stresses and demands of their profession. It includes aspects such as work-life balance, mental health, professional fulfillment, and personal resilience, which contribute to a teacher's capacity to perform their duties effectively and maintain a positive attitude towards their work.

Artificial Intelligence: AI is the field of study that is developing a computer systems to simulate human intelligence and tasks which normally requires human being cognitive functions.

English Language Teacher: An English language teacher is an educator whose primary role is to teach students at various grade levels and help develop their listening, speaking, writing, and reading skills in English.

Job Satisfaction: Job satisfaction refers to the level of contentment and fulfillment an individual experiences in their work role, influenced by factors such as job duties, work environment, relationships with colleagues and supervisors, compensation, and opportunities for growth and advancement.

Teacher Workload: Teacher Workload refers to the total amount of work a teacher is responsible for, including teaching duties, lesson planning, grading, administrative tasks, and student support. It encompasses both the time and cognitive effort required to manage classroom responsibilities and maintain effective teaching practices.

Professional Development: Professional development refers to continuing learning activities that help teachers improve their skills, knowledge, and teaching practices.

CHAPTER 2

2. LITERATURE REVIEW

This chapter provides a portrait of the theoretical framework guiding this study by exploring AI's historical evolution in education, its applications within teaching practices, and its influence on factors related to teacher well-being. The first part examines the definiton and practice, following how AI has transitioned from early educational tools to advanced systems that support instructional and administrative roles. By focusing on areas such as instructional support, teacher workload management, and professional development (PD), this chapter highlights AI's role in shaping a balanced and supportive teaching environment.

2.1. Artificial Intelligence: Definition and Practice

Starting with the emergence of the definition of AI, Turing (1950) discussed the question "Can machines think?" in his published article and laid the foundations of the idea of AI. While Turing is considered the father of AI, the term "artificial intelligence" was first used in 1956 by McCarthy et al. (2006). The authors predicted that one day machines would be able to do everything humans can do. Similarly, Minsky (1968, p. v) defined AI as “the science of making machines do things that would require intelligence if done by men”. As a more recent definition, Kaplan and Haenlein (2018, p. 17) defined AI as “a system’s ability to interpret external data correctly, to learn from such data, and to use those learnings to achieve specific goals and tasks through flexible adaptation.” These definitions have continued to vary over time, yet many foundational ideas continue to align with the operational framework Turing proposed.

In the study by Russell and Norvig (2009), they mentioned that the Turing Test, proposed by Turing in 1950, was designed to provide a satisfactory operational definition of intelligence. To pass this test, a computer must be able to mislead a human questioner to the point that the answers given are indistinguishable from those provided by a human or a computer. Researchers that programming a computer to pass the test requires capabilities such as natural language processing (NLP) to communicate effectively, knowledge representation to store what it hears and knows, automated reasoning to use stored information to answer questions and draw new conclusions, and machine learning to adapt to new circumstances and detect patterns. In the field of AI, NLP stands out as one of the critical and effective areas. NLP enables machines to understand human language, analyze and produce (Sharma et al., 2022).

Devlin et al. (2018) introduced BERT (Bidirectional Encoder Representations from Transformers) which was trained using a comparative task where it was asked to predict missing tokens in a sentence given the context of the surrounding tokens. This allowed BERT to learn rich contextual representations of words, making it highly effective for a wide range of NLP tasks (Patwardhan et al., 2023). A language model, Generative Pre-Trained Transformer 3 (GPT-3) uses techniques for learning to generate text that simulates natural communication. Open AI developed GPT-n series which is a NLP technology as well (Desai & Oza, 2021). Another area, machine learning is a branch of AI that involves computer programs that are able to improve their own performance through experience (Jones, 2019). Critical NLP applications such as sentiment analysis, chatbot systems, question answering systems, information retrieval systems, machine translation and email classification include machine learning techniques to work better. In addition to such capacities, AI is present in a wide range of our everyday lives.

AI is applied to various areas such as healthcare, assembly, manufacturing, business, automotive and education (Mohammad, 2020). For example, AI-powered tools are used in healthcare to assist professionals with identifying diseases more accurately. The tools can analyze patient history and other relevant data to provide insights that support the diagnostic process. It is also used in other areas of healthcare such as image recognition for Xrays, MRIs, predicting analysis with early disease conditions, telemedicine, mobile health applications and so on (Singh, 2024). As another example, the use of AI chatbots increased in e-commerce, which improves customer service (De Cicco et al., 2020). The widespread use of AI is evident in various areas, including educational settings with offering opportunities for both teachers and students. According to Fitria (2021), as time progresses, the education sector needs to improve the quality of education, especially by adapting to information and communication technologies. As both education and AI are important in our lives, we need to know better about AI and education’s integration.

2.2. AI in Education: Historical Perspective and Current Trends

The emergence of AI in the field of education has brought about significant transformation over the years. Beginning with the basic theoretical progress, it has evolved into comprehensive and highly specialized data-driven tools that widely populate classrooms today. AI is an area in education that has been studied since the 1950's, and during this period, the idea of technology imitating human intelligence began to be investigated. The 1960s and 1970s marked the beginning of thinking about developing basic AI systems for use in educational

contexts with computer based systems. One of the earliest examples in this field is PLATO system (Programmed Logic for Automatic Teaching Operation). Bitzer et al. (1961), categorized PLATO into two main functions such as electronic book which included lesson content to transmit to learners, and electronic blackboard which allowed students to write their answers. Interaction mechanisms of PLATO later became more sophisticated. If students were unsure of an answer, they could press the help button. If they answered incorrectly, they received guidance on the error they made and given another chance to answer. Correct answers allowed the students to proceed to the next stage (Cope & Kalantzis, 2023). These systems continued to develop for use in educational settings.

Another example is intelligent tutoring systems (ITS). The systems are computer programs that use AI to provide personalized support based on student's needs (Lesgold, 2006). The critical function of ITS is the adaptability of activities according to individual student or learner needs. Therefore, ITS aims to identify characteristics of the students, which allows to obtain criteria for suggesting activities and understanding how the student would react to certain actions (Keleş et al., 2009). The earliest ITS, the SCHOLAR system was introduced by Carbonell in 1970 (Woolf, 2010). It allowed both the system and the student ask questions and adapted to educational content according to student responses. The system used semantic network that could respond to student questions without pre-storing every possible answer and included a primitive form of student modeling by marking nodes in the network to track what the student was believed to know (Nwana, 1990).

The 1990s and early 2000s witnessed a breakthrough in integrating AI in education, thanks to the advancements in machine learning, NLP, and human-computer interaction. The use of computers began to spread into classrooms in education, and researchers utilized it to develop AI systems that can evaluate student performance and provide feedback. The late 1990s ushered in the creation of more interactive learning environments, facilitating a greater role for AI in both assessing and responding to student needs (Johnson et al., 2000). The Andes project, launched in September 1995 as a collaboration between the University of Pittsburgh and the U.S. Naval Academy, marked a significant effort to integrate AI into education (Gertner & VanLehn, 2000). Andes system was designed around several principles that aimed at enhancing student learning, such as encouraging students to construct their own knowledge by offering hints that prompt them to work through most of the solution independently. he interface was designed to closely resemble a piece of paper, facilitating a smooth transition of skills from the

system to traditional problem-solving environments. Instant feedback after each student action helped maximize learning opportunities while minimizing time spent on incorrect paths. Moreover, Andes provided students with flexibility, allowing them to choose the order of actions and even skip steps when appropriate. The inception of these early interactive learning platforms paved the way for AI-based education systems today, with a strong emphasis on personalization and real-time adaptability.

In recent years, AI's role in education has expanded considerably with the introduction of advanced algorithms and big data analytics. Today, AI powers many educational technologies, ranging from learning management systems to AI-powered tutors. AI systems can generate personalized learning paths that instantly adapt to students based on their aptitude, thanks to the enormous amounts of data they process. Autotutor is a dialogue-based system developed by The Tutoring Research Group (TRG) at the University of Memphis to simulate the dialogue patterns of human tutors (Graesser et al., 1999). It aims to understand student responses and simulate tutor dialogue moves by encouraging students to provide detailed answers on a given subject. The dialogues include five steps: a question posed by the system, the student's response, the system's evaluation of the answer, followed by feedback, error correction, clues, directions, questions, explanations, and summaries based on the system's evaluation. The final step involves repeating the second and fourth steps to improve the student's answer (Nye et al., 2014). If teachers and AI systems work together and combine their strengths, they have the potential to bring transformative outcomes to education. Holstein and Aleven (2021) presented the design and evaluation of Lumilo, a system that helps teachers support students in AI-supported classrooms by providing real-time analytics on students' learning, metacognition, and behavior. Students learn more when teachers and AI tutors collaborate in the classroom. There is a growing variety of AI-powered applications that teachers and students can use in education; recently, chatbots have become increasingly common.

Chatbots conduct real-time conversations with users (Clarizia et al., 2018). They are interactive mechanisms, unlike traditional e-learning systems, and thus play a critical role in the field of education (Bii, 2013). Chatbots can answer any question in seconds, allowing teachers to avoid answering repetitive questions that can be easily addressed by chatbots, while also supporting students who have missed one or more lessons (Garcia et al., 2018). Recent AI applications collect their own data, rather than relying on data pre-selected by humans. These

more complex AI applications create and adjust their algorithms based on whether mission objectives are being met (Hockly, 2023). One of the most well-known chatbots, ChatGPT, was launched in 2022 by the AI research and development company OpenAI. It introduced new opportunities, such as encouraging teachers to use ChatGPT to create innovative assessments and activities for teaching and learning purposes (Zhu et al., 2023). ChatGPT fulfills roles such as teaching agents, peer agents, teachable agents, and motivational agents (Kuhail et al., 2022). AI chatbots in educational settings have received significant interest, especially after the launch of ChatGPT, an AI-powered chatbot capable of generating human-like replies in real time. ChatGPT has been investigated for its ability to assist teachers in tasks such as creating course materials, making suggestions, and evaluating student performance (Lo, 2023). Lo's study highlights ChatGPT's value in teaching, observing that it assists teachers by producing quizzes, translating materials, and even helping with assessment design. Additionally, Lo emphasizes ChatGPT's role in supporting test preparation and providing tailored feedback, although its efficiency may vary depending on the subject and instructional setting. Wu and Yu (2023) conducted a meta-analysis of 24 papers on the role of AI in education related to learning outcomes. Although their study did not focus on ChatGPT, it generalized the merits of AI-based chatbots in enhancing student perception of learning motivation, self-efficacy, and curiosity. It has been observed that universities are increasingly turning to AI chatbots to manage various learning assignments more efficiently than ever before. This trend supports the idea that chatbots have the potential to **influence** education, especially when used in shorter, more targeted interventions that enhance learning outcomes.

2.2.1. Challenges and Ethical Considerations of AI in Education

In the post-pandemic world, the use of educational technologies is likely to increase across all fields. Many of these tools are powered by AI and bring with them a variety of benefits and challenges (Hockly, 2023). AI offers various benefits, such as increased efficiency, personalized instruction, and reduced teacher workload (Gyawali & Mehandroo, 2022). On the other hand, it brings challenges and ethical considerations. Integrating AI into education may introduce new ethical and societal problems, including systemic bias and discrimination, compromising student privacy, increased student monitoring, endangering student autonomy, disadvantaging certain groups, and other forms of inequality (Akgun & Greenhow, 2022). AI is raising important questions regarding the role of technology in educational practices and the responsible use of these technologies (Selwyn, 2019).

Privacy and ambiguity created by AI are critical on the downside of implementing the technology (Cheng et al., 2022). AI's analytical capabilities can produce insights that were previously unattainable when it is combined with large amounts of data. Therfore, it has important privacy implications. The distinction between more and less sensitive data becomes blurred, as information can be extracted from datasets that were previously considered unimportant (Baker & Smith, 2019). AI technology based on algorithmic applications intentionally collects human data from its users and they do not specifically know what kind of data and what quantities of them are collected. Chatbots to improve foreign language speaking and writing skills brings a problem about tracking students' ideas. This may result in decreasing the motivation for their use (Regan & Jesse, 2019).

Another challenge of AI is its lack of emotions, unlike humans. Tao et al. (2019) conducted a survey with 140 teachers to explore their perceptions of the use of AI tools and robotics in the teaching and learning process. Their findings revealed that the use of AI can create a disconnection from emotions, as robots cannot replicate human emotions. Another concern was that robots cannot track students' individual progress in the same way human teachers do, as teachers put effort into helping all their students succeed. Renz and Vladova (2021) consider all the cycles of AI systems, with the main idea being that ethical considerations must provide guidelines and principles for AI systems across all activities.

Tlili et al. (2023) examined the challenges and issues arising in education with ChatGPT. As technology has vast applications, it requires careful integration to meet educational objectives. Some participants expressed concerns about plagiarism, cheating, a tendency towards laziness, the provision of false information, and bias. Others were worried about exposing their demographic and private information (such as age, gender, address, contact information, hobbies, even bank account details, and other personal privacy) to ChatGPT during interactions. The study highlighted the importance of providing teachers with guidelines and training on how to use ChatGPT safely to avoid potential drawbacks. Several concerns exist regarding the deployment of AI, including data privacy, security, bias, and teacher-student relationships, and these need to be addressed to ensure the responsible and ethical implementation of AI in education. To address these challenges, AI literacy and ethics education must be incorporated into the curriculum (Kamalov et al., 2023). Once these concerns are managed, the integration of AI in educational settings may become easier and have a more positive impact on both teachers and students.

2.2.2. Long-term Effects of AI in Education

The long-term effects of AI, which is rapidly increasing in use, are crucial for understanding its applications and outcomes in education. AI in education has garnered significant interest and is being applied to support instruction. As stated in many studies, AI will reshape the way students learn, as well as teaching practices. Kataria (2023) stated that AI will reshape the future of education with inclusive, flexible, and efficient learning platforms. On the other hand, while AI may assist teachers by automating routine tasks and offering individualized feedback, the human side of teaching should not be overlooked. While this reliance on AI could ultimately lead to fewer interactions between teachers and students, there is no replacement for the emotional intelligence and empathy necessary to forge these relationships (Chan & Tsi, 2023). In their study, they explored the potential of AI in higher education through its capacity to replace or assist human teachers. According to their findings, technology may replace teachers, and one teacher expressed the desire to see if AI could teach like a human. Additionally, there were concerns among students about teachers losing their value if traditional teaching methods continued to be used. Most participants supported the idea that teachers' roles are irreplaceable because they possess qualities such as critical thinking, creativity, and emotional intelligence. Teachers were concerned about students' overall development; while students can acquire knowledge through AI, overreliance on it could make it difficult to develop essential life skills such as problem-solving, critical thinking, communication, and teamwork in their personal and professional lives. Participants argued that AI lacks the capacity to master cultural qualities and traditional values, which humans acquire through experience, interaction with diverse individuals, and knowledge accumulation. Teachers should understand how AI can best support both their teaching and their students. Increased collaboration between teachers and AI is important for creating an interactive learning environment (Roll & Wylie, 2016). In another study, Alshehri (2023) pointed out that the long-term impacts of AI will largely be dictated by teachers' development. Teachers expect major changes in their roles with the introduction of AI but worry about the impact on traditional teaching methods. Students' responses in the study suggested that flexible AI implementation is important. Successful integration of AI in education requires a comprehensive strategy that includes ongoing PD, robust support systems, and careful consideration of ethical and equity issues. To sum up, although AI has the potential to transform education with the experiences it offers in the field, it also brings concerns. For its successful and long-term integration, teachers and policymakers should aim for a flexible approach that preserves values in education.

2.3. AI in Language Education

The integration of AI in language education has started to transform traditional techniques by providing personalized and interactive solutions. One of the major advantages of AI in language teaching is its ability to analyze data and adjust lessons to meet the needs of each student (Yunina, 2023). A study by Mena Octavio et al. (2024) explored the integration of ChatGPT into English as a Foreign Language (EFL) teaching. This case study involved a single participant, an experienced EFL teacher in Spain, who used ChatGPT for seven months. Data was collected from the teacher's ChatGPT history, including prompting tasks, lesson planning, and a semi-structured post-interview. According to the history, ChatGPT supported lesson planning by suggesting ideas for content and creating activities. It provided interactive practice through vocabulary expansion and reading comprehension activities with real-time question-and-answer processes, which helped students engage actively in learning tasks. For assessments, it offered automated grading by generating language tests, allowing students to self-assess, and assisting the teacher in the assessment process by providing tailored feedback. The participant noted that refining prompts was important to obtain valuable outputs, emphasizing the significance of critical thinking and prompt crafting skills when using AI in the classroom. The study highlighted the potential of ChatGPT as an educational tool by assisting teachers with their various responsibilities.

AI is utilized across various aspects of teaching and plays an essential role in assessment processes. AI-based assessment, in contrast to rubrics used by humans, involves systems that identify specific features for evaluating speaking skills, such as pronunciation, fluency, vocabulary, grammar, and semantics (Yang et al., 2024). In their study, the researchers focused on AI-supported training to improve English speaking skills. They used a spoken dialogue system, TalkAI, to evaluate the participants' skills in pronunciation, grammar, and its usage. The findings revealed that students' speaking skills improved with TalkAI, and it provided valuable insights into their performance. This study highlighted the potential of AI to improve speaking skills and language awareness, demonstrating its role in complementing traditional techniques and providing personalized feedback.

Language teachers have limited time to develop students' speaking skills in the classroom. Similarly, learners face significant challenges in mastering their communicative skills due to curricula that place more emphasis on English grammar, reading, and vocabulary (Sim & Pop, 2016). AI has also introduced innovations in this area. Supporting this idea, the

study by Johnson and Valente (2009) on the Tactical Language and Culture Training System (TLCTS) highlighted an important AI-focused approach to language education, primarily used by U.S. military personnel to quickly acquire essential language and cultural skills. TLCTS utilizes AI for interactive, scenario-based language learning, emphasizing communication through virtual humans that simulate authentic dialogue in the target language. Features include automatic speech recognition tailored to language learners, modeling that assesses skill mastery, and a structure that supports a variety of content distribution platforms. This study serves as an example of how AI has the potential to improve speaking skills in unique learning environments and lays the foundation for exploring its broader application in classroom settings with diverse needs.

For a better understanding of AI opportunities and practical implications in specific classroom settings, Keerthiwansha (2018) aimed to explore how AI could support English as a Second Language (ESL) education in Sri Lanka, where teachers face challenges such as overcrowded classes, students with diverse proficiency levels, limited classroom time, and heavy documentation requirements. The data in their study was collected through questionnaires given to lecturers at the ELT Department, revealing common issues faced in ESL classrooms. The researchers subsequently proposed an AI-based model aimed at improving curriculum design, learning and teaching, assessment, and documentation. In curriculum design, the model suggested AI customization to adapt lessons according to students' needs. Each student would take a diagnostic test, enabling AI to tailor lessons based on language proficiency to address the needs of both lower and higher-level learners. In learning and teaching, AI could store lesson materials and allow students to access content they missed during their absence, thereby supporting continuity. In assessment, AI tools could provide feedback on skills and areas that need improvement, helping teachers identify errors. Finally, in documentation, AI could assist in tracking attendance, student enrollment, and recording progress, thus allowing teachers to focus more on instruction rather than administrative tasks. The study demonstrates that the integration of AI in classrooms has the potential to create a more interactive environment, with the teacher acting as a facilitator. However, there is a need for technology skills among both teachers and students, as well as access to the internet and computers.

2.4. AI Impact on Teacher Well-Being

According to Seligman (2011), well-being is a construct of positive psychology (PP), but it is not synonymous with happiness. It consists of five elements: positive emotion, engagement, relationships, meaning, and achievement (PERMA). These elements do not contribute to well-being individually, but rather together. In the authentic happiness theory, happiness is the centerpiece of PP. The goal of PP in authentic happiness is to increase the amount of happiness in your life and on the planet. The goal in well-being, however, is to increase the amount of flourishing in your life and on the planet. Huppert and So (2011) define "flourishing" as the experience of life going well, combining both feeling good and functioning effectively. To flourish, a person must have all the core features (positive emotions, engagement, interest, meaning, and purpose) and three of six additional features (self-esteem, optimism, resilience, vitality, self-determination, and positive relationships). High levels of mental well-being are synonymous with flourishing. There is a correlation between flourishing, job satisfaction, and teachers' self-efficacy regarding student engagement, instructional strategies, and classroom management, highlighting that teachers' self-efficacy serves as a mediator between job satisfaction and well-being (Balgiu, 2022). Well-being depends on self-efficacy as one of its variables (Burgueño et al., 2019). Self-efficacy is mostly defined as the level of confidence in one's ability to promote student learning (Bandura, 1994). Teachers' perceptions of their self-efficacy include beliefs about their ability to positively affect student learning through their teaching (Achurra & Villardón, 2012).

Sometimes, students are taught incorrectly because teaching strategies do not consider how they learn (Sweller, 1988). The teacher's role is to analyze, solve problems, and create solutions. Teachers need to take students' cognitive processing abilities into account while building instructional materials (Sweller, 1994). Cognitive Load Theory (CLT) suggests that effective instructional materials facilitate learning by directing cognitive resources toward activities that are relevant to learning, rather than toward preliminaries to learning (Chandler & Sweller, 1991). Teachers encounter difficulties while building materials (Cayabas Jr. & Sumeg-ang, 2023). According to the study by Cayabas Jr. and Sumeg-ang, the researchers focused on the challenges teachers face in developing instructional materials. The results of the study highlighted two issues: a scarcity of time due to heavy workload and the difficulty of keeping pace with technological advancements. The teaching profession involves high workload and responsibility, making teachers particularly vulnerable to burnout, which is negatively correlated with well-being (Maslach, 2003; Milfont et al., 2008).

Burnout can be defined as a syndrome of emotional exhaustion, depersonalization, and reduced personal accomplishment that can develop among individuals who work with people in some capacity (Maslach et al., 2001). According to a study by Sarros and Sarros (1987), job satisfaction plays a significant role in teacher burnout. Teachers who experience job satisfaction are less susceptible to stress and burnout (Kyriacou & Sutcliffe, 1977). In Dincer's study (2019), Turkish English language teachers were contemplating leaving the field of teaching in favor of other careers due to the declining levels of job satisfaction among them globally. The study aimed to investigate the levels of job satisfaction among teachers in Turkey, focusing solely on Turkish English language teachers as participants. The study utilized quantitative measures, such as teacher autonomy scales and a job satisfaction scale, along with a qualitative measure, consisting of an open-ended question. The findings showed that English teachers attributed significance to internal factors in shaping their emotions. When they perceived themselves as autonomous and content in their roles, they expressed concerns regarding various external influences. These external factors, beyond their control, encompass both circumstances and motivational stimuli. Conversely, internal factors, inherently abstract, relate to intrinsic motivation. It is noted that external factors are often associated with negative aspects, hindering teacher autonomy and job satisfaction, whereas internal factors positively impact these variables. Essentially, minimizing external factors while reinforcing internal ones results in increased teacher autonomy and job satisfaction. Regarding external influences, teachers reported feeling diminished autonomy and increased dissatisfaction with their working conditions. External factors include the curriculum, national policy, classroom environment, salary, and workplace. Salary was the major complaint. Internal factors include self-evaluation, the nature of teaching, and student motivation. The responses related to internal factors suggested that English teachers, when they perceived their English proficiency as reliable and proficient, showed a greater willingness to further develop their skills. Positive interactions with students provide them with a sense of joy and enable them to adopt teaching approaches freely with motivated emotions. In summary, a lack of autonomy correlates with decreased job satisfaction among teachers, with external factors evoking negative responses and internal factors eliciting positive ones.

Job satisfaction contributes to the well-being of both teachers and their students (Toropova et al., 2021). According to Ortan et al. (2021), decreasing administrative tasks allows teachers to pursue personal opportunities and PD, which leads to higher levels of job satisfaction and well-being. Efforts to enhance teaching programs or implement educational

reforms often rely on teachers who exhibit openness to change and a willingness to collaborate with peers. This willingness is frequently influenced by the level of satisfaction that teachers experience in their roles (Saiti & Papadopoulos, 2015). For many teachers, AI's contribution to well-being is tied to its ability to reduce the pressures associated with administrative tasks. By automating activities that traditionally required significant manual effort, AI allows teachers to focus more on meaningful classroom interactions. AI can help reduce teachers' workload by handling tasks such as assessments, providing feedback, and identifying students' learning challenges, enabling teachers to proactively support and guide students' needs (Namutebi, 2024). Teacher well-being is linked to many aspects, and these aspects are interrelated. To promote teacher well-being, it is crucial to place importance on well-being and its related components.

2.4.1. AI for Teacher Professional Development

PD is important for every career and is equally crucial for all teachers. Teaching materials, techniques, and methods are constantly updated and changed. This means that the education teachers receive at the beginning of their careers will not be sufficient to serve them throughout their professional lives. Teacher PD involves lifelong learning and growth because teachers' work is never done (Alfaki, 2014). Alfaki's study indicates that teachers need to have positive attitudes towards their profession because such attitudes impact their performance. As we live in a world of ever-evolving technology, teachers must stay updated. Darling-Hammond et al. (2017) indicate that effective PD is considered a crucial factor in enhancing both teacher performance and student outcomes, particularly in relation to the integration of emerging technologies.

The emergence of AI tools has shaped the way teachers address classroom instruction, grading, and student engagement. With the rapid development of technologies being integrated into teaching, particularly the use of AI, it is clear that everyone needs to continuously update their knowledge. In a study conducted by Ding et al. (2024), the focus was on exploring how case-based PD programs can improve AI literacy and the integration of AI tools in classroom environments. The researchers examined how participation in case-based learning activities affects teachers' AI literacy and their ability to use AI in classroom settings. The PD program included direct instruction with case-based discussions, emphasizing practical classroom applications while introducing AI technologies to teachers. According to the results, case-based discussions allowed teachers to benefit from their teaching experiences while developing

solutions, and new ideas emerged at different levels through collaborative conversations. Teachers initially had a limited understanding of AI concepts, but they demonstrated an increase in AI literacy after participating in the PD program. Both qualitative and quantitative analyses showed that teachers developed more positive attitudes toward AI. In conclusion, AI demonstrated its potential for PD. According to Thahir et al. (2021), teachers who participate in PD often exhibit greater self-confidence and job satisfaction, which positively influences their teaching outcomes.

Lu et al. (2024) focused on the role of AI, specifically ChatGPT, in PD of preservice teachers. The focus was on the impact of AI on two key areas: teachers' self-efficacy and higher-order thinking. The research employed a quasi-experimental design with 215 participants divided into experimental and control groups. The experimental group used ChatGPT to assist with lesson planning, while the control group followed traditional methods. ChatGPT significantly improved both self-efficacy and higher-order thinking in the experimental group compared to the control group. According to the interview results, ChatGPT offered various benefits. Participants noted that AI provided a great framework for lesson planning. However, it also presented challenges, such as low accuracy and unexpected responses. The study revealed that AI can decrease workload by automating tasks such as lesson planning, enabling teachers to focus more on pedagogy. It demonstrates AI’s potential in enhancing PD by improving teachers' self-efficacy and fostering higher-order thinking in the aspect of well-being of teachers.

2.4.2. AI for Time and Workload Management

T eachers' time and workload management, especially in contexts with high numbers of students per class combined with additional requirements, is very critical. Jerrim and Sims (2021) revealed that the relationship between teachers' workload and well-being is negatively correlated. Reducing workload, the evolution of AI tools has had a significant impact on freeing up time for teachers, as these tools have automated many of the routine tasks that teachers would have had to perform themselves. According to Ahmad et al. (2022), AI tools reduce the amount of time teachers spend on tasks, allowing them to create more time for instructional quality and PD. Supporting this, Harry and Sayudin (2023) state that in education, the use of AI tools has allowed teachers to automate operations such as grading and attendance, enabling them to spend more time on innovative classroom practices as well as individual student support.

Moreover, AI is able to identify and provide personalized solutions that cater not only to the diverse requirements of students but also to those of teachers. A study by Wise and Jung (2019) indicates that AI-based educational platforms give teachers access to well-organized lesson plans and ready-to-use activities, which can reduce teacher preparation time, making lessons not only more efficient but also more enjoyable. Any customization goes a long way in enabling teachers to do what they do best, such as engaging with students, by saving time and reducing frustration on anything instructional. Tsai et al. (2021) pointed out that AI can automatically generate alternative versions of examinations and quizzes based on student knowledge. Teachers can create different lesson plans, quizzes, and feedback in just a few minutes by using AI tools such as ChatGPT, and other available tools, easing the process of classroom management. AI platforms provide a wealth of resources, and teachers do not need to spend hours completing these tasks, with the help of AI managing time and workload.

Feedback is also a very important task that AI performs in time and workload management. According to Chan and Tsi (2023), AI technologies are capable of providing real-time feedback and handling routine tasks, such as assessments and lesson planning. This allows teachers to focus on more important aspects of their work, using technology to create a more meaningful educational experience and enhance the learning environment. By automating administrative duties, AI frees up time for teachers to adopt more creative and innovative teaching methods. Additionally, students benefit from immediate feedback, and teachers no longer need to spend extensive time grading written assignments. This enables teachers to concentrate on each student's individual development, ultimately leading to an improved educational environment.

Zhang et al. (2023) conducted a study in which they designed an intelligent teaching assistant system called I-assistant. The I-assistant consists of four modules: the class cognitive level module, class subject ability module, classroom state module, and subject design and evaluation module (Figure 2.1). AI algorithms were used in the first three modules to analyze student homework, tests, and video data, visually presenting the current student learning situation. The final module assists teachers with instructional design and promotes effective and accurate teaching in the classroom, while also reducing their workload and the time they spend on preparation.

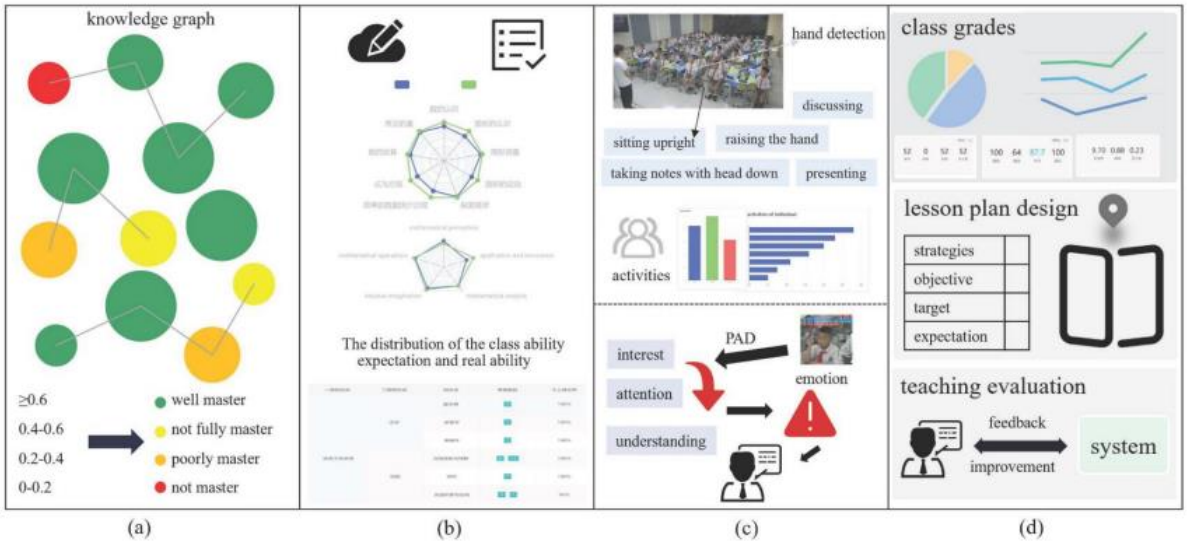

Figure 2.1. System architecture of I-assistant: (a) Class cognitive level module, (b) Class subject ability module, (c) Classroom state module, (d)Subject design and evaluation module.

As shown in the figure above, the class cognitive level module enables teachers to diagnose students' cognitive levels and perform part of the student characteristics analysis by tracking the class's cognitive learning progress. The class subject ability module evaluates students' subject proficiency based on Bloom's taxonomy, including memory, comprehension, application, analysis, synthesis, and evaluation (Adams, 2015), and provides personalized feedback. The classroom state module helps teachers adapt their teaching strategies by monitoring classroom behaviors and students' emotional states. The subject design and evaluation module supports teachers in lesson planning and student performance evaluation processes. This system assists teachers in tracking students, providing personalized feedback, and offering automated suggestions for lesson planning and evaluation processes, ultimately reducing their workload. It is emphasized that such AI-supported tools enhance pedagogical effectiveness, strengthen teacher-student interactions, and help teachers save time by reducing their workload.

However, while AI contributes to reducing workloads, it is important to consider the learning phase involved in using AI tools. While AI may save time once implemented, the initial setup and familiarization process can cause temporary stress. Incorporating AI into education requires adequate teacher training to improve their knowledge and skills (Lee et al., 2024). According to their research, long-term PD programs, such as AI-focused master's degrees, are especially helpful in assisting teachers in developing both knowledge and confidence in using AI technologies. Teachers need proper training and support to fully realize the benefits of AI

in time and workload management, alongside further research to explore the potential of AI in educational assessment (González-Calatayud et al., 2021).

2.4.3. AI for Assessment and Feedback

Assessment plays a crucial role in the teaching process (Nitko, 1996). Teachers need to allocate a significant amount of time and effort while managing other administrative tasks, which adds an additional burden. Administrative tasks contribute to the heavy workload by introducing new demands, such as technology management and evaluations, without reducing previous tasks (Arvidsson et al., 2019). As a result of the use of AI-supported models, there has been a paradigm shift in language teaching and assessment approaches (Schmidt & Thomas, 2022). Assessing grammar, vocabulary, pronunciation, and speaking skills has become easier thanks to the real-time assessment and feedback capabilities of AI systems (Rusmiyanto et al., 2023). Timely responses remain crucial, as students rely on quick and accurate answers to maintain their learning progress (Farhan et al., 2012). AI-powered educational assessment tools provide numerous benefits, including improving the accuracy and efficiency of assessments, creating personalized feedback for students, and allowing teachers to tailor instructional strategies to meet each student's unique needs (Owan et al., 2023). AI-powered tools can save time by automating the assessment process, reducing the workload and allowing teachers to save time spent on assessments by analyzing students' writings and providing feedback on grammar, structure, and content (Huang et al., 2023).

Nguyen and Tran (2023) examined the potential of AI, particularly ChatGPT, in language teaching and discussed its role in reducing teachers' workload. In their study, ChatGPT was tasked with evaluating the writing of advanced English language students and providing detailed feedback and grades based on established criteria. The results showed significant agreement between ChatGPT's evaluations and those of experienced teachers. This finding highlights the potential for ChatGPT to enhance writing instruction and assessment by working collaboratively with human teachers.

In another study, Koraishi (2023) focused on the potential benefits of utilizing ChatGPT in language education. ChatGPT assists teachers in the assessment process by reducing their workload, as the study includes the role of ChatGPT in text assessment. In their study, the teacher sends a text written by a student and requests an assessment according to the Common European Framework of Reference for Languages (CEFR). ChatGPT analyzes the text to determine the proficiency level of writing. It also detects other issues in the text and has the

additional ability to help prepare exam questions. Automated scoring technologies are widely used in writing and speaking assessments, enhancing scoring efficiency while reducing human error and increasing scoring consistency (Yan et al., 2020). Janpla and Piriyasurawong (2020) discovered the significant role of AI in designing online e-learning examinations by utilizing smart algorithms to select questions during online exams. AI has the potential to allow teachers to make assessments and prepare questions for students in a short time, with less effort, which can have a positive effect on their well-being.

2.4.4. AI for Lesson Planning and Instructional Support

A lesson plan is defined by McMahon (2011) as a structured guide that outlines teaching strategies and helps teachers determine which methods to apply based on the specific goals and situational context of the lesson. Apriani et al. (2020) investigated the difficulties English teachers face in preparing effective lesson plans during the "new normal" period following COVID-19. The study is based on data obtained from interviews with two English teachers. The findings revealed that teachers faced difficulties in lesson planning due to limited time, complex planning procedures, and challenges in choosing appropriate teaching methods and strategies. Similarly, Nurfitri et al. (2020) found that English teachers experienced various difficulties in preparing lesson plans in accordance with the 2013 curriculum. Limited time, the complexity of authentic assessment methods, and a lack of student participation were identified as the main factors complicating the planning process. These challenges affected all stages, from preparation of the lesson plan to its implementation. According to John (1993), lesson planning requires a significant portion of teachers' professional time. This is a vital responsibility, considering that teachers spend approximately six hours a week on planning and around 17 hours a week on rigorous classroom instruction. Teachers tend to experience job satisfaction when they feel they have enough planning time. However, they express concern about the excessive paperwork involved in the documentation process (Kocko & Wells, 2015).

George (2023) proposes that one way to address the problem of teacher workload is by introducing AI-powered systems that can automate tasks such as lesson planning and content development. As suggested by Ahmed and Gulnar (2024), AI-based analytics provide teachers with valuable insights into student progress and help identify which teaching practices are most effective. By using AI, teachers can pinpoint areas where students may need assistance or where adjustments might be necessary. Kanvaria and Ritika (2024) emphasized that integrating AI into lesson planning significantly enhances the productivity of teacher candidates. AI-supported

tools have reduced the time spent on routine tasks, enabling teacher candidates to focus more on pedagogical activities and content development. It has also been noted that AI tools facilitate the creation of personalized and adaptable lesson plans based on student performance, which increases student engagement and provides better understanding at different learning levels. However, concerns were raised about potential bias in AI algorithms, and it was emphasized that these algorithms should be continuously monitored to prevent stereotypes and inequalities in the content. The study suggests that integrating AI technologies into educational processes will better prepare teacher candidates to meet the complex needs of modern classrooms.

In their qualitative study, van den Berg and du Plessis (2023) examined the contribution of AI tools, such as ChatGPT, to the fields of lesson planning, critical thinking, and openness in education. They asked ChatGPT to design an English as a second language lesson on prepositions for grade six learners, followed by a worksheet and a presentation. ChatGPT generated a lesson plan that included the basic elements of a lesson plan, such as the purpose of the lesson, a warm-up exercise, practice, production, and a wrap-up with an assessment activity. The level of the lesson plan can be adapted to the learners' level and the subject. The subject was about the causes of climate change, and some teachers argued that it was outdated, while others argued that it provided a framework that still needed sources. In conclusion, all the teachers agreed that the lesson plan generated by ChatGPT is a tool that helps teachers save time. Their findings show that ChatGPT can provide certain materials and support mechanisms, such as lesson plans. While emphasizing the importance of approaching such tools carefully to unlock their full potential in education, they recommend that their limitations and potential biases be critically evaluated and understood as supporting tools for learning and teaching, rather than replacements for teachers.

2.4.5. AI for Teacher-Student Interaction and Student Engagement

It is a widely held belief that teachers' personal relationships with students provide intrinsic rewards and give meaning to their work. Teacher-student relationships are often cited as one of the main reasons teachers remain in the profession, and building positive relationships is considered a fundamental aspect of their role (O'Connor, 2008; van der Want et al., 2015). A positive teacher-student relationship is generally characterized by respect, empathy, trust, and minimal interpersonal conflict, and it has a significant impact on teacher job satisfaction, which is positively related to teachers' well-being (Aldrup et al., 2018; Luo, 2024; Hussain et al., 2022). It predicts greater student engagement, which has been defined as active involvement

in a learning activity (Martin & Collie, 2019; Verner et al., 2022). Student engagement is a complex concept that includes emotional, cognitive, and behavioral aspects (Fredricks et al., 2004). To support teachers' well-being, positive teacher-student interaction and student engagement need to be fostered as well; otherwise, negative dynamics may emerge, impacting the educational environment.

In a study by Rafsanjani et al. (2019), the researchers aimed to define how the process of student disciplining (misbehavior) may affect teachers' psychological well-being, particularly enthusiasm and emotional exhaustion, through teacher-student interaction. The study included 159 economics teachers from senior high schools. It adopted the Student Teacher Relationship Scale (STRS), developed by Pianta (2001), which measures teachers' perceptions of students' appreciation, likes, and respect. The findings revealed that student misbehavior negatively affected teachers' work enthusiasm and positively affected emotional exhaustion. Challenging student behavior can make it difficult for teachers to show warmth and attention, which may cause them to become less attentive to these students. Teacher-student interaction mediated the relationship between student misbehavior and psychological well-being. A well-structured, positive teacher-student relationship can play an important role in reducing teachers' emotional exhaustion.

AI tools have the potential to transform teacher-student interaction, in addition to their various applications in educational settings. In a study by Seo et al. (2021), the researchers focused on the impact of AI on teacher-student interaction in online learning settings by creating storyboards and using them to conduct Speed Dating sessions with 12 students and 11 teachers. The findings showed that adopting AI systems can enable personalized interaction at scale; however, participants expressed concerns about violating social boundaries. Other studies have also provided various insights into how AI-based tools influence interaction in educational settings. Jamal et al. (2023) examined the impact of AI chatbots on teacher-student interaction in higher education. The study adopted a mixed-methods approach using online surveys and semi-structured interviews with a selected group of teachers and students. Students largely believed that AI chatbots had no significant effect on teacher-student interaction, while some felt that it improved communication. This difference in views highlights that the role of AI in classrooms is not straightforward. Meanwhile, it is essential to examine the role of AI in relation to student engagement to better understand how these technologies, along with their impact on teacher-student interaction, might further shape educational experiences and outcomes.

AI tools offer teachers the capability to design learning activities that foster teamwork and encourage students to explore ideas in greater depth. These tools enable students to engage more with course material, leading to a better understanding of key concepts (Baskara, 2023). In their study, Chaudhary et al. (2024) investigated the impact of AI-powered educational tools on student engagement and learning outcomes. This study included 500 university students and adopted a quantitative survey design. The researchers found a strong positive relationship between AI-powered tools and student engagement. According to participants, AI tools enhanced their motivation, participation, and interaction with course content, which positively affected their learning outcomes as well. Similarly, Salem (2024) explored AI integration in personalized learning and its impact on student engagement and achievement. His study used a qualitative design with a case study approach. Data were collected through in-depth interviews, participant observation, and document analysis, involving students and teachers from different educational levels. According to the findings, AI tools provided tailored recommendations and resources aligned with students' needs and preferences. This enhanced engagement and academic achievement, as students reported improved grades after using AI. AI made learning more enjoyable and less monotonous, and teachers also observed an increase in student participation. Teachers noticed that students were more eager to ask questions and engage in discussions, attributing this shift to the personalized feedback and support provided by AI systems. Moreover, students reported improvements in their grades after using AI-based personalized learning tools. In another related study, Swargiary (2024) investigated the impact of AI-driven personalized learning ITS on student engagement and academic achievement. The study included 300 students enrolled in grades 6 to 12 and was conducted at the EdTech Research Association Laboratory in Arizona, United States. The study adopted a mixed-methods approach, and quantitative results showed that AI-driven personalized learning significantly enhanced student engagement and academic achievement, while qualitative results raised concerns regarding data privacy, security, and bias. These findings highlight the positive outcomes of AI, particularly in student engagement; however, concerns remain regarding its impact on both teacher-student interaction and student engagement.

In a study by Xu et al. (2023), the aim was to explore the engagement of master's students in translation with AI-generated feedback from ChatGPT, focusing on the cognitive, affective, and behavioral aspects of student engagement. The study included 29 students and used a mixed-methods approach, where students revised their translations according to ChatGPT's feedback. The results showed high cognitive engagement, particularly with surface-level

feedback. Meaning-level feedback was challenging according to the students, and it led them to consult additional resources. Affective engagement showed moderate satisfaction; students were satisfied with positive feedback but desired more critical insights for skill improvement. Students demonstrated strong behavioral engagement by revising their work effectively and dedicating significant time to improvements and self-corrections. This study, based on translation studies, demonstrated that AI feedback can boost student engagement through supportive feedback. In conclusion, AI tools critically contribute to improving engagement and teacher-student interactions, and their balanced integration is important to protect the emotional and relational aspects of education.

CHAPTER 3

3. METHOD

This chapter includes research design, participants, data collection and data analysis procedures. The first part of the chapter introduces and gives information of the research design. This study adopted qualitative research method with collecting data through semi-structured interviews to explore the teachers views flexible and in-depth. The qualitative data were collected during interviews.

The second part of the chapter presents participant selection by using purposive sampling. Purposive sampling was employed to select participants with experience and knowledge related to AI tools. Demographic data information is given by a table with explanations.

In the later sections, data collection and data analysis offer details about collecting data through semi-structured interviews, including audio recording and later transcribing data before starting the content analysis for data analysis. The final part of the data collection includes trustworthiness of the qualitative findings.

3.1. Research Design

This study employs a qualitative research design to explore teachers' views on the use of AI tools for promoting their well-being. In qualitative research, the researcher relies on participants to provide in-depth answers to questions about how they construct or understand their experiences. This humanistic, interpretive approach is also called "thick description" due to the richness and detail of the discussion. It is often used by qualitative researchers as a form of representation after analyses, such as coding, have been completed (Freeman, 2014). Through qualitative design, the researcher learns much more about a phenomenon (Jackson et al., 2007). This method allows for a thorough examination of the subjective effects of AI on teacher well-being, a topic that requires understanding of personal perspectives, experiences, and the nuances of human behavior that quantitative methods may overlook. To examine complex social phenomena influenced by external factors, qualitative methods are particularly helpful. Qualitative methods have been found to be essential in education, as they enable researchers to explore how specific contexts influence educational practices and experiences (Cleland, 2017).

The literature strongly supports the use of interviews in qualitative research, as they enable researchers to capture the complexities of participants' experiences in their own words. Interviews are considered one of the most effective methods for gathering qualitative data (Britten, 1995). DiCicco-Bloom and Crabtree (2006) emphasized the importance of interviews in understanding the complex ways people interact with and perceive their surroundings. The depth and flexibility of interviews are crucial for data collection in qualitative research. Personal experiences and perspectives of participants are accessed by researchers, providing rich and detailed data that are essential for understanding intricate issues. Direct interactions with English language teachers were made possible for this study through semi-structured interviews, where they were asked questions to express their views. This method facilitated a detailed understanding of the participants' individual experiences. Additionally, interviews offer researchers the opportunity to explore subjects in depth, which can lead to the discovery of new perspectives that might not emerge through other data collection methods. Semi-structured interviews provide the advantage that, although all participants are asked about similar experiences and opinions, there is flexibility to modify questions and delve deeper into specific responses, resulting in a more nuanced understanding of teachers' views on the impact of AI on their well-being. The flexibility of semi-structured interviews allows for the exploration of emerging themes, which is vital for qualitative research. This flexibility led to the identification of critical factors influencing educational outcomes in a study examining the role of teacher-student relationships in academic achievement (Adeoye-Olatunde & Olenik, 2021). Qualitative research techniques, especially interviews, are invaluable for examining the complex and contextualized experiences of participants in educational research. These techniques provide the breadth and adaptability required to uncover the nuanced ways AI integration affects teacher well-being, offering insights essential for developing supportive instructional strategies. This technique was effectively employed in the study.

3.2. Participants

This study used the purposive sampling method to select participants who have knowledge of using AI tools and relevant experience. Purposive sampling is a qualitative research approach that involves identifying and selecting information-rich situations to ensure the most effective use of limited resources (Patton, 2002). The scope of the study is to provide meaningful insights by including 10 Turkish English language teachers working at different grade levels and institutions in Turkey. Table 3.1 provides demographic information about the participants.

Table 3.1 Demographic information of the participants

Participant	Age	Years in Profession	Institution	Student Age	AI usage Frequency
T1	35	10	University	18-23	Twice a week
T2	28	6	University	18-23	Weekly
T3	25	3	Language Course	8-13	Twice a week
T4	26	4	Elementary School	7-12	Weekly
T5	25	3	University	18-21	Weekly
T6	34	12	University	18-24	Twice a week
T7	25	4	High School	15-17	Three days in a week
T8	26	1	Language Course	19-35	Weekly
T9	42	17	Secondary School	11-14	Weekly
T10	39	11	University	18-24	Twice a week

10 English language teachers were chosen for this study in order to represent a wide range of educational settings including Turkish language courses universities and private and public schools. Because institutional settings vary, it is possible to thoroughly examine the needs and experiences of teachers working at different academic levels. Purposive sampling was used to select participants who actively utilize AI tools in their teaching experiences. The aim of this criterion was to collect relevant data on the effects of AI tools on teacher well-being in educational settings.

The participants vary widely in terms of age, teaching experience, the institutions they work in, the age ranges of the students they teach, and the frequency with which they use AI. The participants were aged between 25 and 42 years, distrubuted as follows: 25 years (three participants), 26 (two participants), 28, 34, 35, 39 and 42 years. Their teaching experience ranged between one to 43 years, providing the perspectives of both novice teachers and those with extensive careers in the field. The institutions they work in includes universities, language courses, elementary schools, high schools and secondary schools, offering insights into different educational contexts. The age of the students varied among the participants; some teachers taught young children (ages 7 to 12), while others had students from high school and university (ages 18 to 24).

Teachers working in a variety of institutions, including universities, language courses, primary schools, high schools, and secondary schools, provided insights into different educational contexts and taught various age groups. Their frequent use of AI tools, in order of intensity, was as follows: five responses indicated weekly use, four responses indicated use

twice a week, and three responses indicated use three times a week. This diverse combination of ages, teaching experience, institutions, and levels of AI use enhances the study's findings, providing a comprehensive insight into teachers' views on the role of AI tools in promoting well-being across different educational contexts.

The study's ethical considerations and objectives were communicated to prospective participants via email during the participant selection process. Each participant agreed to take part in the study, confirmed their understanding and voluntary participation, and ensured the confidentiality of their identities and responses. Participants in this study are identified by codes such as T1, T2, T3, etc., to maintain anonymity and for data presentation purposes. All participants used AI tools at least on a weekly basis and interacted with them regularly. The study's findings reflect a variety of experiences within the Turkish English language education setting, thanks to the purposive approach to participant selection and the ethical rigor of the selection process.

3.3. Data Collection

Semi-structured interviews were used to collect data for this study because they allowed for the elicitation of thoughtful, nuanced answers from participants. Interviews were determined to be the most appropriate method for obtaining in-depth insights into English language teachers' experiences and views regarding the use of AI tools in their professional practice and its impact on their well-being, given the qualitative nature of the research. A semi-structured interview is a verbal interchange where the interviewer has a list of predetermined questions but allows the conversation to develop in a natural, conversational manner, enabling participants to explore issues they find significant while maintaining a focus on the key topics to be covered (Longhurst, 2009). Due to their capacity to reveal rich, contextual data that may not be uncovered by more rigid interview structures, semi-structured interviews are especially valued in qualitative research (McGrath et al., 2018).

Along with discussing potential difficulties and ethical issues, the questions addressed a range of topics related to AI integration, such as its effects on workload, time management, teacher-student interaction, teaching effectiveness, job satisfaction, and well-being. This approach ensured that the data gathered was both deep in understanding and wide in scope, capturing the complex nature of AI's impact on teachers' careers. Semi-structured interviews facilitated the discussion of delicate and difficult subjects, such as moral dilemmas and the

potential strain of AI tools, while promoting candid and open communication among participants (DiCicco-Bloom & Crabtree, 2006).

Depending on the preferences and availability of the participants, each interview was either conducted in person or through online communication platforms and took 10 to 20 minutes at pre-determined times and dates. Contemporary qualitative research greatly benefits from the flexibility in interview conduction, which allows for the inclusion of a wider range of voices in the study and accommodates the varying needs of participants (McGrath et al., 2018). All interviews were conducted in Turkish to establish rapport and eliminate language barriers. The choice of language significantly impacts the quality of data collected during interviews, with native-language interviews providing more nuanced and accurate responses (Cortazzi et al., 2011). The data collection procedure lasted three weeks. The recordings were then transcribed verbatim, with great care taken to preserve the participants' original meanings and expressions, providing a rich basis for analysis. In qualitative analysis, verbatim transcription is vital because it permits a detailed investigation of the language and nuances that participants employ, which is critical for comprehending the breadth of their experiences (Sargeant, 2012).

20 interview questions were prepared by reviewing the relevant literature. A pilot study was then conducted with two in-service English language teachers to ensure clarity. Before the interviews, an expert in the field reviewed the questions to check their relevance to the research objectives. Based on the feedback from both the English language teachers and the expert, the questions were revised and reduced from 20 to 10 to make them clearer and more relevant.

3.4. Data Analysis

In order to examine and comprehend the nuanced experiences of English language teachers with the application of AI tools in their professional practice, a methodical and multi-step approach to data analysis was used in this study, employing content analysis alongside a systematic coding process. This approach facilitated a deep exploration of the nuanced impacts of AI tools on various aspects of teaching practices and teacher well-being. The analysis began with open coding, in which interview transcripts were carefully examined to identify trends, recurrent themes, and new ideas. This stage produced a wide range of codes that reflected the complex and varied experiences of ELT teachers incorporating AI into their teaching. As the foundation for the following phases of analysis, open coding ensured that the diverse range of teacher experiences and insights were appropriately represented.

After transcription, the data underwent a familiarization process that involved reading the transcripts several times. According to Braun and Clarke (2006), this stage enabled a preliminary understanding of the content's scope and depth, and initial codes and possible themes began to emerge. Codes reflecting key components of how AI tools affected regular teaching practices and overall well-being were identified. Axial coding was then used to organize these preliminary codes into more comprehensive categories and themes. The main objectives of this analysis phase were to discover overarching themes that encapsulated the key findings and examine the connections between different codes. In the context of ELT, this structured approach provided deeper insights into how AI tools were influencing teaching practices and general well-being (King, 2004). After axial coding, selective coding was used to further refine the analysis and create a coherent narrative around the themes that had been identified. To identify the most important findings and reach relevant conclusions, this required synthesizing the data. The selective coding process highlighted key areas.

Peer debriefing was employed as an external validation mechanism for the research process and the identified themes in order to ensure the analysis's credibility and dependability. By incorporating different perspectives and interpretations, this enhanced the analysis's rigor by allowing peers who were not directly involved in the study but were familiar with qualitative research to discuss the overall analysis and emerging themes (Braun & Clarke, 2006). In summary, content analysis provided a thorough understanding of how AI tools affect the professional practices and well-being of English language teachers. The key themes offer insightful perspectives on the complex influence of AI in ELT, and the coding process provided important insights into how AI integration is changing the educational landscape.

CHAPTER 4

4. FINDINGS

This section offers an in-depth exploration of how AI tools impact ELT teachers' well-being according to their perspectives, as specified through their teaching practices and professional experiences in Türkiye. The findings are structured to address research questions concerning the role of AI tools in promoting teacher well-being, teachers' perceptions and experiences regarding AI, and the challenges and ethical considerations of integrating AI into their professional practice. Qualitative data were collected through semi-structured interviews conducted with 10 English language teachers working across diverse educational settings. The data highlights nuanced insights into themes such as time and workload management, job satisfaction, student engagement and interaction, privacy, and data security, employing content analysis and a systematic coding process. The findings are supported by direct quotes to capture the depth of teachers' experiences, highlighting the multidimensional impact of AI on teachers' experiences. In the following sections, the themes, categories, and codes that emerged are presented in tables under each heading to address the research questions, and each theme is analyzed comprehensively, providing a detailed understanding of the implications for the broader context of ELT.

4.1. Utilizing AI Tools to Enhance Language Teachers' Well-Being

According to the first research question, Table 4.1 below presents the themes, categories, codes, frequencies, and participant views identified in relation to the question. The themes derived in the section following the table are analyzed under theme headings, supported by direct quotes from the participants. The frequency of the relevant themes reflects the importance that participants attach to these issues and emphasizes the scope of the findings obtained.

Table 4.1. Themes, Categories, Codes, and Participant Insights for the First Research Question.

Themes	Categories	Codes	Frequency	Participants
Time and Workload Management	Task automation and efficiacy, stress relief	Reduced time required for repetetive tasks, provides support and reduces stress levels	10	T1, T2, T3, T4, T5, T6, T7, T8, T9, T10
Job Satisfaction	Positive Professional Outlook	Enhances motivation and satisfaction	9	T1, T2, T3, T4, T5, T6, T7, T9, T10
Enhanced Classroom Dynamics	Facilitating interactive and collaborative lessons	Improves classroom Interaction and participation through tailored activities	8	T1, T2, T3, T4, T5, T6, T7, T8

This table, based on the participants' responses, highlights three central themes: time and workload management, job satisfaction, and enhanced classroom dynamics. These themes illustrate how AI tools have affected teachers' professional lives, with a specific emphasis on reducing workload, increasing motivation, and fostering engaging classroom environments. It provides a detailed understanding of their impact on teachers' well-being from the teachers' own perspectives. Time and workload management was the only theme that fully aligned with the responses of all participants. The frequencies were similar, with 9 responses for job satisfaction and 8 for enhanced classroom dynamics. Detailed analyses and direct quotes from the participants are presented under the following headings.

4.1.1. Time and Workload Management

In terms of time and workload management, AI tools were mentioned by participants as saving teachers' time on repetitive tasks and reducing their stress levels. All participants (T1–T10) focused on this aspect of AI, highlighting its positive impact on their well-being, which underscores its wider significance in various teaching settings. As for their role in teachers' repetitive tasks, participants mostly mentioned exam preparation and course materials. T1 stated, *"Using AI tools to evaluate course notes in minutes has significantly reduced my workload, which in turn has reduced my stress levels."* This statement implies that AI helps reduce both the time spent and the stress associated with heavy workloads. Likewise, T7 reported *"ChatGPT has been particularly helpful for preparing exams. We had to create separate questions for listening, reading, writing, and speaking, which was a heavy burden. ChatGPT was very useful for this."* This answer clearly demonstrates the scope that AI (and ChatGPT in particular) offers teachers, not only by saving time on creating questions for

students but also by alleviating the burdens placed on the most essential elements of language learning. The other frequently mentioned aspect, beyond assessment and exam preparation, is AI's ability to design personalized course content without requiring long hours of work.

Aside from evaluating and preparing exams, another area where AI can be practically applied is in developing individualized course content without requiring extensive amounts of time. T9 stated, *"AI tools lighten my workload, save time, and help me prepare more effective materials."* This statement highlights the usefulness of AI tools by helping teachers focus more on how the lesson is being taught, rather than just on the paperwork involved. Participants consistently emphasized how AI served as a valuable resource, particularly during busy or stressful times, boosting their confidence in their work. This significant shift in how time and workload are managed underscores the importance of AI in education today.

4.1.2. Job Satisfaction

The use of AI in teaching has highlighted the critical role teachers play in their job satisfaction. Teachers often mentioned that AI allows them to focus on tasks that are more meaningful to their work, rather than repetitive tasks. T5 shared, *"Definitely it has had a positive effect on my job satisfaction since it reduces my workload."* Emphasizing that they feel better with the reduction of their workload, the participant teacher stated that with lessened workload, they have more time for creativity and professional growth, and feel more connected to their role. While using AI, teachers have the opportunity to communicate with their students in a similar language, which helps spark their curiosity. T2 elaborated, *"Seeing their enthusiasm made me look forward to my classes more. I began each lesson with greater energy, and the sessions became more enjoyable and fun, both for me and the students."* By increasing motivation for both teachers and students, AI highlighted the potential positive role of these tools in education. Participants also appreciated the inspiring and positive encouragement that AI tools offer, making lessons more innovative and adaptable to modern methods. T7 explained, *"Moving away from traditional methods and exploring the innovative features offered by AI increases my motivation."* Such modernization of teaching not only enhances the classroom experience but also allows teachers to gain a sense of satisfaction in their jobs. These participants consistently reported that the ease of using AI tools was linked to greater energy, interest, and dedication to their work, suggesting that AI could also act as a catalyst for revitalizing their passion for teaching. These findings indicate that AI's ability to automate tasks and enrich the teaching profession could help sustain and prolong job satisfaction.

4.1.3. Enhanced Classroom Dynamics

AI solutions have altered the classroom environment, creating more opportunities for student engagement and interaction. Participants frequently commented on how AI technology and its support on activities enhanced teaching by customizing lessons to meet students' needs and making lessons more dynamic and interactive. T3 stated, *"Using AI has made my teaching methods more dynamic and diverse. I can use more interactive and diverse materials with students*." This not only changed the dynamic of teaching but also took into account the students' learning styles, making the class more inclusive. Similarly, T5 emphasized, *"AI helps me quickly adjust materials to different levels, making classroom management much smoother."* By offering tools to personalize instruction in real-time, AI has enabled teachers to accommodate the diverse abilities of students and make learning more equitable.

AI tools help create a dynamic classroom by offering useful tools and interactive features that encourage student engagement and participation. T8 shared, noted, *"When I focus on business English with adults, AI can provide excellent texts on how an interview might proceed or what kind of conversations might occur. This has significantly improved classroom participation."* This response illustrates how AI can enhance the student experience by providing relevant and helpful content. In addition, T7 shared, *"The suggestions I get from AI for classroom games have significantly improved how students engage in lessons."* These responses demonstrate that AI not only delivers content but also offers a variety of interactive features that encourage student engagement. In a more participatory and dynamic learning environment, AI has made interactions between students and teachers more efficient and meaningful.

4.1.4. Summary of Findings of the First Research Question

The findings from the first research question revealed three main themes regarding the impact of AI tools on teacher well-being: time and workload management, job satisfaction, and classroom dynamics. In terms of time and workload management, participants highlighted how AI tools (such as ChatGPT) reduced the time spent on repetitive tasks like exam preparation, grading, and generating instructional materials. This reduction in workload eased pressure and contributed to their well-being. Regarding job satisfaction, teachers emphasized the motivational impact of AI tools. Specifically, they reported that by simplifying their tasks and allowing them to explore innovative teaching methods, AI tools made their jobs more fulfilling. This was often linked to the tools' ability to introduce creative and innovative teaching methods,

making the teaching process more enjoyable and exciting for both teachers and students. The theme of classroom dynamics focused on how AI tools enhanced student engagement and teacher-student interactions. Teachers noted that AI-enabled activities made students more engaged and collaborative. This dynamic environment, enriched by the personalization and adaptability of AI tools, significantly improved the overall classroom experience, making interactions more meaningful and inclusive. These improvements in classroom dynamics contributed to teachers' sense of accomplishment and satisfaction, further supporting their well-being.

4.2. Language Teachers' Perceptions and Experiences of AI Tools in Supporting Professional and Personal Well-Being

According to the second research question, Table 4.2 outlines three main themes reflecting teachers' perceptions and experiences regarding the role of AI tools in their professional and personal well-being: teaching effectiveness, professional growth, and student engagement and interaction. These themes capture the multifaceted impact of AI, from enhancing teaching methodologies to fostering professional confidence and supporting well-being. The frequency of responses and the diverse participant insights highlight the widespread recognition of AI as a valuable asset in modern teaching practices.

Tablo 4.2. Themes, Categories, Codes, and Participant Insights for the Second Research Question.

Themes	Categories	Codes	Frequency	Participants
Teaching Effectiveness	Enhancing teaching methodologies and content delivery	Dynamic lessons, tailored materials, and innovative approaches	8	T2, T3, T4, T5, T6, T7, T9, T10
Professional Growth	Skills development and embracing innovation	Confidence-building, technology adaptation, and creativity	7	T1, T2, T3, T5, T7, T9, T10
Student Engagement and Interaction	Fostering collaboration and active participation	Interactive activities, increased participation, and improved communication	9	T1, T3, T4, T5, T6, T7, T8, T9, T10

The data reveal how deeply AI tools influence both the professional and personal dimensions of teaching. Under teaching effectiveness, the codes (dynamic lessons, tailored

materials, and innovative approaches) highlight AI's ability to make lessons more engaging and customized to students' needs. These capabilities not only enhance the quality of education but also align teaching methods with modern expectations. The professional growth theme emphasizes teachers' confidence-building and adaptability to technology. Codes such as "technology adaptation" and "creativity" illustrate how teachers perceive AI as a tool for continuous learning, helping them stay current and innovative in their profession. Meanwhile, the theme of student engagement and interaction underscores how interactive activities and improved communication foster a collaborative classroom culture, enhancing both learning and emotional connections.

4.2.1. Teaching Effectiveness

AI tools have significantly enhanced the teaching effectiveness of language teachers by enabling them to adopt more dynamic, diverse, and innovative methodologies.T3 emphasized, *"Using AI has made my teaching methods more dynamic and diverse. I can use more interactive and diverse materials with students."* This adaptability has allowed teachers to tailor their lessons to individual students' needs, creating a more inclusive and engaging learning environment. Similarly, T6 noted, *"I can say that it helps me better understand the individual needs of students and customize lesson plans accordingly."* These insights highlight how AI empowers teachers to design lesson plans that accommodate varying learning levels and styles, ensuring that each student receives a personalized educational experience. The innovative capabilities of AI tools also enable teachers to move beyond rigid traditional methods, enhancing the overall classroom experience. T7 observed, *"Thanks to AI, I understand students' needs better, and I find it more effective. Lessons become more productive."* Furthermore, T9 stated, *"Using AI has made my teaching methods more dynamic and diverse. I can use more interactive and diverse materials with students."* These reflections highlight how AI facilitates creative teaching strategies that align with modern educational needs, helping teachers deliver impactful lessons while maintaining student interest and participation. This shift in teaching effectiveness demonstrates AI's critical role in shaping contemporary language education.

4.2.2. Professional Growth

AI tools have become instrumental in fostering professional growth among language teachers by encouraging skill development and boosting confidence in integrating technology. Teachers frequently emphasized how AI supports their adaptation to modern educational needs. T7 shared, *"Learning to use AI tools has added a new skill set to my teaching repertoire."* This

reflects the empowering role of AI in enhancing teachers' technological competence, enabling them to stay relevant in an evolving educational landscape. T9 added, *"Engaging with AI applications has made me more open to integrating technology in my teaching."* These observations suggest that AI not only enhances practical skills but also fosters a mindset of adaptability and openness to innovation. In addition to technical skills, AI tools have also sparked creativity in lesson planning and material preparation. T3 explained, *"Socially and professionally, I share these tools with my colleagues and learn from their creative uses, like writing songs or poems with AI."* This collaboration highlights how AI can serve as a source of inspiration, allowing teachers to experiment with innovative approaches. Additionally, T2 remarked, *"Exploring AI-based teaching methods keeps me motivated to stay updated."* These insights suggest that AI plays a pivotal role in rejuvenating professional enthusiasm and encouraging lifelong learning. By equipping teachers with new skills and fostering a creative outlook, AI significantly contributes to their ongoing PD.

4.2.3. Student Engagement and Interaction

Findings from the interviews reveal that AI tools have played a pivotal role in enhancing both student engagement and teacher-student interactions. Participants frequently emphasized how AI tools create personalized learning environments that cater to individual student needs. For instance, T3 highlighted, *"AI tools enable me to tailor lessons for different student levels, making the learning process more inclusive and engaging for everyone in the class."* This personalization not only increases students' motivation but also ensures active participation during lessons. Another ability of AI tools was to facilitate collaborative and interactive learning. T5 mentioned how integrating AI-powered applications helped students engage with course material dynamically, stating, *"AI-supported activities allow students to interact with content through quizzes and real-time feedback, which keeps them more involved and interested."* Similarly, T8 shared, *"I have students who are shy and usually avoid speaking up. However, with AI tools like chatbots, they feel more comfortable participating, as the tools create a non-judgmental space for learning."* This highlights how AI tools, such as chatbots, can foster a more inclusive classroom environment by encouraging participation from students who might otherwise hesitate to engage.

Teacher-student interactions have also benefited significantly from AI tools, particularly through the automation of administrative tasks. T4 pointed out, *"By automating repetitive grading tasks, I have more time to focus on meaningful discussions with my students, which*

builds stronger connections." Furthermore, the use of real-time analytics provided by AI tools enables teachers to address students' challenges proactively. T9 shared, *"AI insights help me identify students struggling with certain concepts, allowing me to intervene promptly and provide the necessary support."* This statement highlights the value of AI in promoting responsive teaching. By offering insights into students' learning challenges, AI empowers teachers to take timely and targeted actions, ensuring that struggling students receive the support they need to succeed. This fosters a more adaptive and student-centered learning environment. AI tools not only enhance student engagement through personalized and interactive approaches but also create opportunities for more meaningful teacher-student relationships by freeing up teachers' time for direct interactions. This dual benefit underscores the transformative potential of AI in shaping a more inclusive and responsive educational environment.

4.2.4. Summary of Findings of the Second Research Question

The findings reveal how language teachers perceive and experience the impact of AI tools in supporting their professional and personal well-being. Teachers perceive AI as a way to make their classrooms more effective, allowing them to create engaging, flexible, inclusive classes that meet the needs of students. This ability gives them a feeling of achievement and fulfilment in their work, seeing their teaching better meet today's educational expectations. AI is also an important tool for their professional growth, giving them new technical competences and encouraging flexibility. Teachers reported they felt more confident and creative in their work because AI makes learning constantly possible and promotes creativity. Sharing AI methods with each other builds a deeper professional community and inspires them. Furthermore, AI platforms significantly enhanced student interaction and participation by fostering a customized and social learning atmosphere. Teachers reported that these resources facilitated participation of all types of students, including students who might be less interested, by offering non-competitive and non-threatening learning environments. Additionally, by doing the repetitive work, AI allowed teachers to be more engaged with their students, develop stronger relationships with them, and have a more responsive and inclusive classroom culture. These insights demonstrate that AI tools enhance teaching practices and professional growth, fostering satisfaction, achievement, and innovation, which are integral to overall well-being. By reducing workload, encouraging creativity, and enabling deeper connections with students, AI creates a more supportive and fulfilling teaching experience that holistically promotes teachers' well-being.

4.3. Key Challenges and Ethical Considerations in Integrating AI Tools for Supporting English Language Teachers' Well-Being

According to the second research question, Table 4.3 identifies four main challenges and ethical considerations faced by language teachers when integrating AI tools into their teaching practices: privacy and data security, reliability of AI tools, over-reliance on technology, and maintaining teacher-student connection. Each theme highlights specific concerns, such as safeguarding sensitive information, ensuring content accuracy, avoiding excessive dependence on AI, and preserving the essential human element in education. These themes underscore the complexities teachers face in balancing technological innovation with ethical teaching practices.

Table 4.3. Themes, Categories, Codes, and Participant Insights for the Third Research Question

Themes	Categories	Codes	Frequency	Participants
Privacy and Data Security	Safeguarding information, data sensitivity	Avoid sharing sensitive data, uncertainty about data collection, proactive privacy measures	7	T2, T3, T4, T6, T7, T9, T10
Reliability of AI Tools	Accuracy, content refinement, consistency issues	Verification of AI outputs, checking for errors, adjusting materials for reliability	8	T1, T3, T4, T5, T6, T8, T9, T10
Over-reliance on Technology	Balancing AI use with traditional methods, avoiding dependency	Risk of creativity loss, maintaining independent problem-solving skills, complementing human input	8	T1, T2, T4, T5, T6, T7, T9, T10
Maintaining Teacher-Student Connection	Preserving personal interactions and emotional connections	Balancing AI with personal interaction, ensuring teacher-student bonds remain strong	9	T1, T2, T3, T4, T5, T6, T7, T8, T10

According to the table, privacy and data security stand out as significant concerns, with teachers highlighting the potential risks of data breaches and misuse. The emphasis on avoiding the sharing of sensitive information reflects the caution teachers must exercise when utilizing AI tools. The reliability of AI tools emerges as another critical issue, as teachers frequently mentioned the need to verify AI outputs to ensure their accuracy and suitability for classroom use. This highlights the limitations of AI in providing consistent and reliable results. The table also points to the challenges of over-reliance on technology, as participants expressed concerns

about the risk of losing creativity and independent problem-solving skills. Teachers stressed the need for balance to ensure that AI supports rather than replaces critical teaching practices. Lastly, the theme of maintaining teacher-student connection reflects the importance of preserving meaningful interpersonal interactions in classrooms, even as technology plays a growing role. This balance ensures that the human element remains central to the educational experience.

4.3.1. Privacy and Data Security

Privacy and data security concerns were frequently highlighted by participants, reflecting the caution required when integrating AI into classrooms. T9 shared, *"Concerns regarding using AI can sometimes be about technological dependency and privacy,"* illustrating how technological advancements can raise uncertainties around data protection. Similarly, T3 noted, *"AI may collect data, and this creates uncertainty about security,"* emphasizing the need for transparency in how AI tools handle sensitive information. To mitigate risks, T4 stated, *"I always avoid sharing personal student information when using AI tools to protect their privacy."* Participants also highlighted the necessity of double-checking sensitive information and taking proactive steps to minimize risks. T10 remarked, *"Privacy concerns are valid, so I double-check sensitive information,"* while T7 explained, *"I avoid logging into tools with personal details to prevent potential risks."* These responses underscore the need for comprehensive training and clear guidelines for teachers, ensuring responsible use of AI tools. By addressing privacy and data security concerns, institutions and developers can create a safer environment for integrating AI into educational settings.

4.3.2. Reliability of AI Tools

Teachers frequently highlighted concerns about the reliability of AI tools, emphasizing the need for verification and refinement of AI-generated outputs. T9 stated, *"AI outputs may not always be accurate, so I double-check the information,"* reflecting a cautious approach to using AI tools in educational settings. Similarly, T5 remarked, *"The reliability of the content generated by AI is a concern in lesson planning,"* pointing to the potential challenges of integrating AI into structured curricula. These reflections highlight the importance of scrutinizing AI-generated materials to ensure they align with classroom standards and student needs. Participants also mentioned specific instances where AI tools required significant adjustments to meet their expectations. T6 explained, *"I sometimes find that AI overcomplicates beginner-level materials,"* illustrating how AI's general-purpose nature can create mismatches

with specific educational contexts. T10 added, *"The tools sometimes fail to meet specific classroom needs, so adjustments are necessary,"* emphasizing the active role teachers must play in refining AI outputs. These findings suggest that while AI tools can streamline tasks, their reliability depends heavily on human oversight, making it essential for teachers to maintain a critical and adaptive approach when using AI in their practice.

4.3.3. Over-reliance on Technology

Teachers expressed concerns about the potential over-reliance on AI tools, highlighting the risks it poses to creativity, problem-solving skills, and the overall teaching experience. T9 remarked, *"Teachers may become overly dependent on AI, which risks reducing their creativity,"* emphasizing the need for balance in integrating technology into teaching. Similarly, T5 noted, *"Students might overuse AI for tasks rather than thinking critically,"* reflecting the broader implications of AI on both teachers and students. These insights suggest that unchecked reliance on AI could lead to a diminished capacity for independent thinking and innovation. The risk of losing personal engagement in teaching was another prominent concern. T6 stated, *"When AI replaces too many tasks, we risk losing personal engagement with our students,"* underscoring the importance of maintaining the human element in education. T4 further added, *"Balancing the use of AI with traditional methods is crucial,"* emphasizing the need to integrate AI in a way that complements rather than overshadows conventional practices. These findings highlight the importance of thoughtfully implementing AI to ensure it serves as a supportive tool without undermining the core responsibilities and interpersonal connections of teachers.

4.3.4. Maintaining Teacher-Student Connection

Maintaining meaningful teacher-student connections emerged as a priority for teachers, who emphasized the importance of balancing technological interaction with personal engagement. T10 stated, *"AI can make teacher-student interactions more technological, but the human element is vital,"* reflecting a shared concern about preserving the emotional and relational aspects of teaching. Similarly, T4 observed, *"While AI provides excellent materials, personal interaction keeps the learning dynamic,"* highlighting the need for teachers to remain actively involved in fostering a vibrant and supportive classroom environment. Teachers also noted how combining AI with personal interactions can enhance classroom dynamics without diminishing teacher-student bonds. T7 remarked, *"The collaborative classroom activities ensure that teacher-student bonds are maintained,"* illustrating how AI can be used to complement interpersonal teaching methods. T8 added, *"Maintaining the emotional aspect of*

teaching alongside AI use is crucial for trust and respect," emphasizing that the teacher's role extends beyond delivering content to building rapport and ensuring student well-being. These insights suggest that while AI can enrich classroom practices, its optimal use requires a balance that upholds the human connection central to education.

4.3.5. Summary of Findings of the Third Research Question

The findings from this section reveal the complexities and ethical challenges of integrating AI tools into educational practices. Across the four themes, teachers consistently emphasized the need for a balanced and thoughtful approach to using AI. Under privacy and data security, participants highlighted the importance of safeguarding sensitive information and implementing proactive measures to prevent potential risks. These concerns underline the necessity of clear guidelines and robust training to ensure responsible AI usage. Similarly, reliability of AI tools was a recurrent issue, with teachers noting inconsistencies in AI-generated outputs and stressing the importance of constant verification and adjustment to maintain classroom relevance. The theme of over-reliance on technology showcased teachers' awareness of the risks associated with excessive dependence on AI, including diminished creativity and problem-solving skills. Teachers underscored the need to complement AI with traditional methods to preserve the integrity of teaching practices. Lastly, maintaining teacher-student connection emerged as a crucial consideration, as teachers highlighted the importance of balancing technological tools with meaningful personal interactions to uphold the emotional and relational dimensions of education. These findings collectively suggest that while AI tools hold great potential for enhancing teaching practices, their successful integration depends on addressing these challenges thoughtfully. This requires ongoing teacher training, robust data security protocols, and a commitment to preserving the human centric elements of education. In terms of well-being, addressing these challenges is crucial for ensuring that AI tools contribute positively to the personal and professional satisfaction of teachers. By safeguarding privacy, ensuring reliability, preventing over-reliance, and maintaining teacher-student relationships, AI can support teachers' sense of accomplishment, reduce stress, and promote a more balanced work-life dynamic. Thoughtful integration of AI tools is essential for preserving the well-being of teachers while enhancing their effectiveness in the classroom.

CHAPTER 5

5. DISCUSSION, CONCLUSION AND SUGGESTIONS

The following sections provide an in-depth analysis of the findings through the lens of existing literature, highlighting the implications of AI tools on English language teachers' professional and personal well-being. The discussion delves into how AI addresses teachers' challenges, enhances teaching practices, and promotes well-being while considering ethical concerns and limitations. The conclusion synthesizes key insights from the study, emphasizing its contributions to understanding AI's transformative role in education. Finally, the suggestions section outlines actionable recommendations for teachers, policymakers, and researchers to ensure the responsible and effective integration of AI tools into teaching practices, aiming to optimize teacher well-being and professional growth.

5.1. Discussion

The findings of this study align with and extend existing literature on the transformative potential of AI tools in education, particularly their impact on professional and personal teacher well-being (e.g. Ahmed & Gulnar, 2024; George, 2023; Ding et al., 2024). By examining the experiences of English language teachers in Türkiye, the research provides a nuanced understanding of how AI tools influence professional practices, personal resilience, and classroom dynamics, while also uncovering critical challenges and ethical considerations. The study's findings confirm prior research indicating that AI tools significantly reduce workload by automating repetitive tasks such as exam preparation, grading, and lesson planning (Ahmed & Gulnar, 2024; George, 2023). Teachers consistently emphasized that this reduction in workload alleviates stress and allows them to focus on more meaningful aspects of teaching, a theme echoed in the literature. For instance, Ahmad et al. (2022) and Namutebi (2024) highlight how AI's ability to automate routine administrative tasks contributes to increased teacher efficiency and well-being. This automation frees up time for PD and creative lesson planning, aligning with findings from Ding et al. (2024), which demonstrated that case-based PD programs integrating AI improved teacher competence and confidence. Participants in this study expressed that the time saved through AI-enabled automation directly enhances their emotional balance and work-life integration, a finding that resonates with Ortan et al.'s (2021) assertion that reduced administrative burdens lead to greater job satisfaction. For example, teachers noted that tools such as ChatGPT streamline the creation of differentiated materials

tailored to diverse student needs. This is consistent with findings by Kanvaria and Ritika (2024), who reported that AI tools significantly reduce the time required for routine instructional tasks while enhancing content quality.

The integration of AI into teaching practices was found to enhance job satisfaction by enabling teachers to modernize their approaches and engage in innovative methodologies. Teachers reported a renewed sense of motivation and enthusiasm as they explored the creative possibilities offered by AI, such as generating interactive classroom activities and designing personalized assessments. These findings echo the work of Holstein and Aleven (2021), who demonstrated that AI-supported teaching environments empower teachers to focus on meaningful classroom interactions. Furthermore, the ability to customize learning experiences in real-time, as noted by participants, aligns with studies by Keerthiwansha (2018) and van den Berg and du Plessis (2023), which highlight AI's role in fostering dynamic and responsive educational practices. Participants also emphasized that AI tools encouraged professional growth by fostering technological adaptability and inspiring creativity in lesson planning. This aligns with Lu et al.'s (2024) findings, which showed that AI integration in PD programs enhances teachers' self-efficacy and higher-order thinking. The participants' accounts of collaborative learning among teachers, such as sharing innovative uses of AI, further highlight AI's potential to support PD, as suggested by Alfaki (2014). By embracing AI, teachers not only enhance their technical skills but also develop a mindset of continuous learning, ensuring their relevance in evolving educational landscapes.

The findings also highlight AI's pivotal role in transforming classroom interactions. Participants frequently noted that AI tools enhanced student engagement by enabling the creation of interactive and collaborative activities. These findings align with Salem's (2024) study, which found that AI-driven personalized learning improves student motivation, participation, and achievement. Similarly, Baskara (2023) and Chaudary et al. (2024) demonstrated that AI-powered tools positively influence student engagement by offering tailored resources that align with individual learning preferences. Teachers in this study observed that AI-supported activities foster collaboration among students. This is consistent with findings by Jamal et al. (2023), which revealed that AI tools promote active learning and improve classroom communication. The ability of AI to adapt materials to different proficiency levels, as noted by participants, further underscores its capacity to create inclusive learning environments, an outcome supported by the work of Yang et al. (2024). However, teachers also

emphasized the importance of balancing AI integration with human interaction to maintain the emotional and relational aspects of teaching, reflecting the concerns raised by Chan and Tsi (2023) regarding the irreplaceable role of teacher empathy in fostering student development.

Despite its many benefits, the integration of AI tools raises critical challenges and ethical concerns. Participants in this study highlighted privacy and data security as major issues, reflecting broader concerns in the literature. For instance, Selwyn (2019) and Akgun and Greenhow (2022) discuss the ethical implications of AI's data collection processes, emphasizing the need for transparent and secure practices. Teachers in this study reported exercising caution by avoiding the sharing of sensitive student information, a proactive approach also recommended by Tlili et al. (2023) to mitigate risks of data misuse. Reliability of AI outputs was another recurring concern. Participants frequently noted the need to verify and refine AI-generated content to ensure its accuracy and classroom relevance. This finding aligns with Gonzalez-Calatayud et al.'s (2021) recommendation for rigorous training programs to help teachers critically assess AI-generated materials. Furthermore, the potential for over-reliance on AI emerged as a significant challenge, with participants warning that excessive dependence on technology could undermine creativity and critical thinking skills, both for teachers and students. These concerns resonate with findings by Tao et al. (2019) and Regan and Jesse (2019), who caution against the overuse of AI in educational contexts. Finally, the findings underscore the importance of maintaining teacher-student connections in AI-supported classrooms. Participants emphasized that while AI facilitates efficiency and engagement, it cannot replicate the empathy, trust, and relational dynamics essential to effective teaching. This is consistent with findings by Luo (2024) and Aldrup et al. (2018), who stress the centrality of personal interactions in fostering teacher satisfaction and student well-being. Teachers in this study advocated for a balanced approach that integrates AI as a supportive tool while preserving the human element in education.

According to the research questions guiding this study, several key findings have been supported and highlighted, offering a comprehensive understanding of how AI tools influence English language teachers' well-being. The results confirm that AI tools can play a transformative role in alleviating workload by automating repetitive and time-consuming tasks, enabling teachers to focus on more meaningful aspects of their profession, such as enhancing instructional quality and fostering student engagement. Participants consistently noted that this shift not only reduced stress but also provided them with a sense of emotional balance and

increased professional satisfaction. These outcomes align with prior studies emphasizing the critical link between workload management and teacher well-being. Moreover, the study's findings reveal that AI integration fosters professional growth by encouraging teachers to adopt innovative methodologies and develop technological adaptability. Teachers expressed that the creative possibilities enabled by AI tools, such as generating interactive classroom materials and designing personalized assessments, reinvigorated their motivation and enriched their teaching practices. These experiences underscore the role of AI in promoting lifelong learning and adaptability, which are essential for navigating the evolving educational landscape. At the same time, the study identifies significant challenges and ethical considerations that must be addressed to ensure responsible AI integration. Privacy concerns, data security, and the reliability of AI-generated outputs were recurring themes among participants, highlighting the need for clear ethical guidelines and robust training programs. Teachers stressed the importance of critically evaluating AI tools to maintain their professional autonomy and safeguard the relational and empathetic aspects of education. Overall, these findings demonstrate that while AI has significant potential to enhance teacher well-being, its integration must be approached thoughtfully to balance technological efficiency with the human-centric elements of teaching. By addressing these challenges and utilizing AI's benefits, teachers can create more effective and supportive learning environments that align with both teacher and student needs. This study underscores the importance of a balanced and ethical approach to AI integration, contributing valuable insights to the growing discourse on AI's role in education.

5.2. Conclusion

This study explored English language teachers' perceptions regarding the use of AI tools to promote their well-being. The findings revealed that AI tools significantly contribute to reducing teachers' workload, enhancing teaching effectiveness, and resulting in improving their professional and personal well-being. Participants frequently emphasized how AI tools provide support in time and workload management, allowing them to focus on creative and pedagogical aspects of their profession. Similarly, AI's role in fostering tailored and dynamic teaching strategies has positively influenced both student engagement and teacher satisfaction, highlighting its transformative potential in educational settings. However, challenges such as concerns regarding data privacy, the reliability of AI-generated outputs, and the risk of over-reliance on technology underscore the complexities of integrating AI tools into teaching practices. The study emphasized the importance of maintaining meaningful teacher-student connections alongside AI use to preserve the human aspect of education, which is central to

fostering motivation, trust, and engagement in classrooms. The findings suggest the need for targeted PD programs to help teachers effectively utilize AI tools while addressing ethical considerations and technical challenges. Moreover, educational institutions must prioritize creating secure and user-friendly AI platforms, alongside robust guidelines, to support teachers in integrating these tools into their practices effectively. In conclusion, this study sheds light on the multidimensional impact of AI tools on English language teachers' well-being and professional practices. By addressing the challenges and ethical considerations identified, policymakers and teachers can employ AI tools to enhance both teacher and student outcomes. Future research should investigate long-term effects of AI integration and explore its potential across different educational contexts, further paving the way for a more inclusive and adaptive teaching environment.

5.3. Suggestions

To optimize the integration of AI tools into ELT and enhance teacher well-being, several key suggestions are proposed. First, comprehensive teacher training programs are essential to equip teachers with the necessary skills and knowledge to effectively utilize AI tools. These programs should focus on AI literacy, including crafting effective prompts, verifying AI-generated content, and understanding data privacy concerns. Practical workshops and ongoing PD sessions can provide hands-on experience, enabling teachers to confidently integrate AI into lesson planning, assessment, and classroom activities. Ethical guidelines and robust data security measures are equally critical. Institutions and policymakers must establish clear privacy protocols to protect sensitive student and teacher information, ensuring compliance with data protection standards. Transparency in how AI tools process and store data is vital to reduce concerns about misuse and foster trust in these technologies. Balancing AI integration with human interaction is another crucial aspect. AI tools should complement, not replace, the human element in teaching. Teachers should be encouraged to maintain meaningful personal interactions with students, using AI to enhance rather than diminish the educational experience. Additionally, AI can be utilized to design collaborative learning activities that promote teamwork and peer engagement, strengthening classroom dynamics. Institutional support is necessary to ensure seamless AI integration. Investments in reliable infrastructure, such as high-speed internet and compatible devices, are critical for effective implementation. Policies guiding the equitable use of AI tools, especially in under-resourced areas, can further ensure that all teachers and students benefit from these technologies. Encouraging research and innovation in AI applications for education is also important. Schools and educational

institutions should conduct pilot studies to explore innovative uses of AI, allowing teachers to adapt these technologies based on real-world classroom needs. Suggestions for future studies include conducting longitudinal research to examine the long-term impacts of AI tools on teaching practices, teacher well-being, and student outcomes. Exploring the nuanced effects of AI on diverse educational contexts, particularly underrepresented or under-resourced settings, could provide critical insights for more equitable integration. Additionally, comparative studies on the effectiveness of different AI tools in fostering teacher-student interaction and engagement could refine best practices for implementation. Finally, fostering a positive professional environment is essential. AI tools should be used strategically to reduce administrative burdens, enabling teachers to focus more on instructional quality and professional growth. Recognizing and rewarding teachers who effectively integrate AI into their teaching can promote a culture of innovation and excellence, motivating teachers to adopt these technologies. By implementing these recommendations, stakeholders can harness AI's potential in education while ensuring it contributes meaningfully to teacher well-being and student success.

GENİŞLETİLMİŞ TÜRKÇE ÖZET

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YAPAY ZEKA ARAÇLARININ İYİLİK HALİNİ ARTIRMADAKİ KULLANIMINA İLİŞKİN İNGİLİZCE DİL ÖĞRETMENLERİNİN GÖRÜŞLERİNİN İNCELENMESİ

Melike SORAL KARAYER

Bu nitel çalışma, İngilizce öğretmenlerinin yapay zeka YZ araçlarının mesleki ve kişisel yaşamlarındaki iyilik hallerini üzerindeki etkisine dair algılarını incelemektedir. Araştırma, YZ'nin öğretmen iyilik halini artırma potansiyelini keşfetmeyi, uygulamadaki zorlukları anlamayı ve ilgili etik kaygıları ele almayı amaçlamaktadır. Türkiye genelinde farklı eğitim kurumlarında çalışan ve YZ araçlarını aktif olarak kullanan 10 İngilizce öğretmeni, amaçlı örnekleme yöntemiyle belirlenmiştir. Katılımcılar; üniversite, dil kursları, ilköğretim, ortaöğretim ve lise gibi çeşitli kurumlarda görev yapmaktadır ve öğrencileri 7 ile 24 yaş arasındadır. Veri toplama sürecinde, öğretmenler ile yarı yapılandırılmış görüşmeler ses kaydı alınarak yapılmış ve sonrasında transkript edilmiştir. Görüşmelerde, öğretmenlerin iş yükü yönetimi, sınıf içi etkileşim, mesleki gelişim ve iyilik hali gibi konulardaki düşüncelerine odaklanılmıştır. Toplanan veriler, içerik analizi yöntemiyle incelenmiş ve seçici kodlama aşamaları takip edilmiştir. Kodlama sürecinde belirlenen başlıca temalar arasında iş yükü ve zaman yönetimi, öğretmen-öğrenci etkileşimi ve etik kaygılar yer almaktadır.

Bulgular, YZ araçlarının tekrar eden görevleri otomatikleştirerek öğretmenlerin zaman yönetimini streslerini azaltarak kolaylaştırdığını, öğrenci etkileşimlerini artırdığını ve öğretim sürecine olumlu katkılar sunduğunu göstermektedir. Katılımcılar, YZ araçlarının mesleki gelişimlerine ve yenilikçi öğretim yöntemlerini benimsemelerine olanak tanıdığını belirtmiştir. Ayrıca, YZ destekli etkinliklerin sınıf içindeki iş birliğini artırdığı ve kapsayıcı bir öğrenme ortamı sağladığı gözlemlenmiştir. Bununla birlikte, katılımcılar veri güvenliği, gizlilik ve YZ'ye aşırı bağımlılık gibi konulardaki endişelerini dile getirmiştir. Bu endişeler, eğitimde insan unsurunun korunması gerektiğini ve teknolojik araçların dengeli bir şekilde kullanılmasının önemini vurgulamaktadır.

Sonuç olarak, bu çalışma, YZ araçlarının öğretmenlerin iyilik halini artırma potansiyelini ortaya koyarken, aynı zamanda bu araçların kullanımıyla ilgili etik ve teknik

zorluklara dair farkındalığın artırılmasının önemini göstermektedir. YZ teknolojilerinin eğitimdeki rolü giderek daha kritik hale gelirken, bu teknolojilerin hem öğretmenlerin hem de öğrencilerin iyilik halleri üzerindeki etkisine dair çalışmaların sayısının artırılması, mevcut eğitim-öğretim yaşantısının verimliliğine katkı sağlaması açısından önemlidir. Bu araçların en verimli şekilde kullanılabilmesi için, karşılaşılan etik ve teknik engellerin aşılması gerekmektedir. Öğretmenlerin YZ alanında mesleki gelişimlerini destekleyecek programlarının oluşturulması, karşılaşılan zorluklara yönelik önlemler ve düzenlemeler geliştirilmesi önerilmektedir.

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APPENDIX

Interview Questions

1- Do you feel that AI has had a positive impact on your job satisfaction as an English teacher?

2- Have you used AI tools for repetitive tasks or other areas in the classroom? If so, what has been the effect on your well-being?

3- Are there any examples you can share of how AI tools have significantly improved your teaching experience and well-being?

4- How have AI tools helped you in managing your workload and stress levels? Do you have a specific example?

5- What are the drawbacks of using AI tools in education, and how do you think these drawbacks affect well-being?

6- How do you think AI has contributed to your overall well-being as an English teacher?

7- What were your professional motivations, thoughts, and concerns before using AI? Have you noticed any changes since you started using AI?

8- Do you believe AI has changed the dynamics of student-teacher interactions in ELT environments? How do you think these interactions effect well-being?

9- Considering your experiences, how do you envision the future role of AI in English teaching, and what impact do you think it will have on teachers' well-being?

10- What kind of improvements or changes do you think should be made for AI tools to be more effective in enhancing well-being in education?