

Exploring the Integration of ChatGPT for Teaching English in a Malaysian Primary School

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ABSTRACT

This research investigates the integration of ChatGPT, a generative artificial intelligence (AI) tool, into English language teaching in Malaysian primary schools. The main objective is to explore how teachers perceive ChatGPT in terms of its usefulness, impact on teaching effectiveness, and influence on pupil engagement. The study also aims to identify the benefits, challenges, and concerns teachers face when using AI tools in the classroom. A qualitative research design was employed, using semi-structured interviews with 10 English teachers from different primary schools. The participants shared their experiences with using AI, particularly ChatGPT, in their teaching practices. Data were analysed to identify common themes related to perceptions, implementation, and practical challenges. The findings reveal that teachers generally view ChatGPT as a helpful tool for lesson planning, generating creative teaching materials, and supporting differentiated instruction. Many teachers believe that AI can enhance classroom interaction and motivate pupils through engaging and personalized learning activities. However, several challenges were identified, including insufficient access to technology, limited digital infrastructure, lack of teacher training, and uncertainty about AI's role in relation to traditional face-to-face instruction. Teachers also expressed concerns about over-reliance on AI and the need to maintain human elements in teaching. The study concludes that while educators are open to adopting AI tools like ChatGPT, effective integration requires proper training, policy guidance, and cultural relevance. It recommends ongoing professional development, collaboration between AI tools and conventional methods, and the development of clear guidelines for classroom use. Future research could explore the long-term impact of AI on learning outcomes, evaluate different AI tools for language teaching, and examine AI's potential in promoting inclusive education.

Keywords: ChatGPT, English Language Teaching, Malaysian Primary Schools, Teacher Perceptions, AI Integration

INTRODUCTION

The integration of artificial intelligence (AI) into education is reshaping traditional teaching and learning practices worldwide. AI technologies are increasingly used to personalize instruction, reduce teachers' workload, and enhance teaching effectiveness (Luckin et al., 2016; Holmes et al., 2019). Among these technologies, ChatGPT—an advanced language model developed by OpenAI—has emerged as a versatile tool with practical classroom applications. By generating human-like responses, ChatGPT assists teachers in lesson planning, content creation, and providing real-time feedback (OpenAI, 2023). These capabilities make ChatGPT especially valuable in language education, where creativity, engagement, and differentiated instruction are essential (Holmes et al., 2019).

Globally, English proficiency is seen as a key skill for communication, access to knowledge, and career advancement (Graddol, 2006). Many countries emphasize English education as a means of academic and professional success (Harbin Engineering Journal, 2023; Indonesian Journal of Applied Linguistics, 2023). AI tools like ChatGPT can support this goal by generating ideas, tailoring materials to individual pupil needs, and offering personalised learning support (Luckin et al., 2016; Jones, 2021).

In Malaysia, English is prioritised as a critical skill for global participation and national development. As the country aspires to achieve developed nation status, efforts to strengthen English proficiency have intensified (Ali, 2018; Pandai, 2023). However, English language teaching in Malaysian primary schools continues to face challenges such as large class sizes, mixed-ability pupils, limited resources, and the expectation to promote higher-order thinking skills alongside language acquisition (Heng & Tan, 2021). Tools like ChatGPT offer potential solutions by supporting differentiated instruction, generating relevant teaching materials, and aiding classroom engagement (Yunus et al., 2019).

Despite its potential, the use of ChatGPT in Malaysian classrooms—particularly for English teaching—has not been widely explored. Most existing studies focus on the theoretical benefits of AI without examining how teachers actually use such tools in real classroom contexts (Holmes et al., 2023; Zhang et al., 2023). Additionally, although Malaysian education policies promote creativity, communication, and critical thinking in English, little is known about the role of AI in supporting these goals in practical terms (Ng et al., 2023; Pandai, 2023).

This study aims to explore how ChatGPT can be integrated into English language teaching in Malaysian primary schools. It focuses on two main areas: (1) the applicability of ChatGPT in supporting English instruction, and (2) its impact on teaching effectiveness and pupil engagement. By addressing these aspects, the study seeks to provide practical insights for teachers and policymakers. The findings are expected to inform strategies for using ChatGPT to address existing classroom challenges and enhance learning outcomes, contributing to broader discussions on AI's role in advancing education in Malaysia.

The Integration of ChatGPT in Education

Artificial intelligence (AI), especially ChatGPT, has rapidly influenced global education, transforming how teaching and learning take place. Within just two months of its launch, ChatGPT reached 100 million active users, signalling its broad potential in education (Hu, 2023). Its ability to personalise learning, adapt content to pupil needs, and foster engagement has shown positive impacts, particularly in diverse classrooms (Melor Md Yunus, 2022). Additionally, ChatGPT reduces teachers' administrative workload, enabling them to focus on interactive and pupil-centred instruction.

ChatGPT also promotes inclusivity by supporting learners with different abilities through tailored resources (Melor Md Yunus, 2022). However, ethical concerns around privacy, data security, and potential misuse remain significant (Yau & Chan, 2023; Zaveria, 2023). Some countries, such as China and Italy, have imposed restrictions due to fears of academic dishonesty and over-reliance on technology (McCallum, 2023). Despite these concerns, scholars argue that responsible implementation of ChatGPT can greatly enhance teaching and learning (Melor Md Yunus, 2022). The discourse continues to balance AI's benefits with ethical, political, and practical considerations.

ChatGPT in English Language Education

In English education, ChatGPT offers real-time feedback, conversational support, and personalised learning experiences using natural language processing. It enhances engagement by guiding pupils through complex language concepts interactively. Its use aligns with the TPACK framework (Mishra & Koehler, 2006), which integrates technology, pedagogy, and content, as well as the SAMR model (Puentedura, 2006), which illustrates how technology can evolve from substitution to redefinition of learning tasks.

ChatGPT supports differentiated instruction, lesson planning, and content development tailored to learner needs (Yunus et al., 2023). In Malaysia, it aligns with Sustainable Development Goal 4, promoting equitable and inclusive education while fostering creativity, communication, and intercultural competence (Melor Md Yunus, 2023). However, challenges include insufficient teacher training, limited infrastructure, and the need to align AI tools with Malaysian classroom realities (Yunus et al., 2023). Addressing learners' varied English proficiency levels is essential for effective implementation.

Challenges in Malaysian Primary Schools

Several barriers hinder ChatGPT integration in Malaysian primary schools. Teacher readiness is a key issue, as many educators lack the skills to use AI effectively (Tan & Tan, 2023). Professional development programmes are needed to build competence and confidence.

Technological infrastructure, especially in rural areas, limits implementation due to poor connectivity and inadequate devices (Yunus & Nordin, 2023). Government support and investment are crucial to ensure equitable access.

Ethical concerns surrounding privacy, reduced human interaction, and excessive dependence on AI are also noted. Mustafa et al. (2024) warn that overuse may affect pupils' social skills, highlighting the importance of balancing digital tools with face-to-face learning. Teachers ensured informed consent from pupils and used ChatGPT-generated materials responsibly, avoiding data sharing or online pupil interaction. Ethical use emphasized transparency, age-appropriate content, and teacher supervision during all AI-supported activities.

Cultural and contextual adaptation remains another challenge. AI technologies designed for global audiences may not align with Malaysian educational norms. Abdul and Puspaningrum (2024) emphasise the need for localised adaptation and sustained teacher support.

Conceptual Framework: Integrating TPACK, SAMR, and THUMB

The integration of ChatGPT into English teaching can be comprehensively understood through the TPACK and SAMR models. TPACK (Mishra & Koehler, 2006) highlights the interplay between Technology Knowledge (TK), Pedagogical Knowledge (PK), and Content Knowledge (CK). For English teachers, this means understanding ChatGPT as a tool (TK), using it effectively in instruction (PK), and aligning it with curriculum goals (CK).

The SAMR model (Puentedura, 2006) explains the stages of technological integration—Substitution, Augmentation, Modification, and Redefinition. ChatGPT may begin as a substitute for traditional tasks (e.g., grammar practice) and progress toward redefined learning experiences like personalised dialogues and interactive lessons.

The THUMB model (Yunus et al., 2023) further supports evaluation through five dimensions: Technological feasibility, Human-centered design, Understandability, Manageability, and Benefit. This ensures ChatGPT is pedagogically appropriate, accessible, and user-friendly.

Together, these models frame the research by examining ChatGPT's impact on lesson planning, engagement, and teaching effectiveness while ensuring suitability, teacher readiness, and positive learning outcomes. This integrated framework provides a holistic lens to assess ChatGPT's role in modernizing English education in Malaysian primary schools.

Research Design

This study employed a qualitative case study approach to explore the integration of ChatGPT in English language teaching at a primary school in Puchong, Selangor. The case study design enabled an in-depth understanding of contextual factors influencing AI use in classrooms (Yin, 2018). Data were collected through three methods:

1. **Semi-structured interviews** with English teachers to examine their perceptions and experiences (Creswell & Poth, 2018).
2. **Classroom observations** to document the practical application of ChatGPT in teaching (Merriam & Tisdell, 2015).

3. **Document analysis** of lesson plans, ChatGPT-generated materials, and pupil work to provide additional insights (Bowen, 2009).

This triangulated approach allowed for a comprehensive understanding of ChatGPT's role in enhancing English instruction at the primary level.

Participants

Ten English teachers were selected through purposive sampling from the chosen school. Participants had a minimum of five years of teaching experience and prior exposure to technology-enhanced instruction (Palinkas et al., 2015). Their willingness to experiment with digital tools made them suitable for exploring the integration of ChatGPT. This sample size aligns with qualitative research standards for obtaining rich, in-depth data (Creswell, 2013).

Research Instruments

Semi-Structured Interviews

Open-ended questions were used to explore teachers' views on ChatGPT in areas such as perceived benefits, challenges, instructional changes, and pupil engagement. The interview guide drew from validated instruments on educational technology (Creswell, 2014; Yin, 2018) and was reviewed by experts to ensure relevance (Cohen, Manion, & Morrison, 2017).

Document Analysis

Lesson plans, teaching materials, AI-generated content, and assessment records were collected and coded using a predefined analytical framework (Bowen, 2009). This method provided insights into instructional planning and the integration of ChatGPT.

Classroom Observations

Observations captured real-time use of ChatGPT, teacher–pupil interaction, engagement, and achievement of lesson objectives. A structured checklist guided data collection (Merriam, 2009), and detailed field notes were used to document classroom dynamics.

Ethical standards were strictly followed, ensuring confidentiality and anonymity of both teachers and pupils (Cohen et al., 2017).

Data Analysis

Data were analyzed using thematic analysis (Braun & Clarke, 2006). The process involved familiarization, manual or software-assisted coding (Saldana, 2016), theme development, refinement, and triangulation across interviews, documents, and observations (Flick, 2018). Emerging themes focused on areas such as teaching effectiveness, applicability of ChatGPT, and pupil engagement. Findings were presented narratively, supported by direct evidence from all data sources (Creswell, 2014; Patton, 2015).

Thematic analysis was selected for its suitability in identifying patterns across diverse qualitative data and its strength in revealing teachers' lived experiences with ChatGPT.

Validity And Reliability

Construct validity was established by aligning interview and observation protocols with the study's objectives (Cohen, Manion, & Morrison, 2018). Internal validity was supported through consistent use of data collection procedures, while external validity acknowledged the contextual limitations of a single-school setting (Yin, 2018).

Reliability was ensured using validated instruments and inter-rater reliability procedures. Multiple researchers reviewed and coded the data, reaching consensus on the interpretation of themes (Creswell, 2014).

Findings

The findings are organised based on the two research questions and presented through two main themes and their corresponding sub-themes.

Research Question 1: How do teachers apply ChatGPT in teaching English in Malaysian primary schools?

Theme 1: Teachers' Use of ChatGPT in Classroom Practice

Table1.1 Support for Grammar and Explanations

Theme	Sub-theme	Interview Findings	Classroom Observation Findings	Document Analysis Findings
1. Teachers' Application of ChatGPT in English Teaching	Perception of Usefulness	Teachers appreciated ChatGPT for grammar explanations, assisting with pupil needs.	ChatGPT was used to provide instant grammar feedback, improving pupil understanding.	Teachers integrated ChatGPT-generated explanations in lesson plans.

Teachers commonly used ChatGPT to clarify grammar, generate examples, and respond to pupil questions. It was valued for speed and accuracy. Teacher A shared that it provides "instant answers and helps with grammar explanations," and Teacher E said it supports pupils with different abilities. Classroom observations showed its frequent use during vocabulary and sentence construction tasks. Lesson plans reviewed also reflected reliance on ChatGPT-generated explanations.

Table1.2 Concerns About Language Complexity

Theme	Sub-theme	Interview Findings	Classroom Observation Findings	Document Analysis Findings
1. Teachers' Application of ChatGPT in English Teaching	Concerns About Formality and Complexity	Teachers found ChatGPT's responses too formal/complex for younger pupils (e.g., Teacher B).	Teachers simplified ChatGPT content for younger pupils (e.g., Teacher C modifying exercises).	Teachers adapted ChatGPT's language to make it more suitable for pupils.

Teachers expressed concern that ChatGPT's responses are often too formal or complex for young learners. Teacher B noted the need to "adapt content for younger pupils," and Teacher G said examples must be "relatable to children's experiences." Observations confirmed that teachers simplified and rephrased AI-generated content during lessons, especially for lower primary levels.

Table 1.3 Efficiency and Creativity in Lesson Preparation

Theme	Sub-theme	Interview Findings	Classroom Observation Findings	Document Analysis Findings
1. Teachers' Application of ChatGPT in English Teaching	Balancing Efficiency with Creativity	Teachers emphasized efficiency in lesson prep but also creativity (e.g., Teacher D).	Teachers adapted ChatGPT resources to make lessons engaging (e.g., cultural references).	Teachers creatively modified ChatGPT content for better engagement and relevance.

ChatGPT accelerated lesson preparation by suggesting exercises and writing prompts. Teacher D stated it made “planning faster and more efficient.” However, teachers localized content to reflect Malaysian culture for example, replacing generic settings with familiar local contexts. For instance, Teacher D adapted ChatGPT’s generic passage ‘A trip to the park’ to ‘A visit to the Ramadan Bazaar,’ integrating familiar local contexts that resonated with pupils’ experiences and cultural background. This adaptation helped pupils connect emotionally with the lesson and improved comprehension.

Table 1.4 Enhancing Collaboration and Classroom Tasks

Theme	Sub-theme	Interview Findings	Classroom Observation Findings	Document Analysis Findings
1. Teachers' Application of ChatGPT in English Teaching	Enhancing Collaboration	Teachers used ChatGPT to generate collaborative tasks (e.g., Teacher D, Teacher H).	Pupils worked in groups, using ChatGPT for problem-solving and sentence creation.	Lesson plans incorporated ChatGPT in group activities to facilitate collaboration.

ChatGPT facilitated group-based vocabulary and writing activities. Teacher D used it to generate collaborative word tasks, while observations in Teacher H’s class showed pupils creating sentences in groups using AI-generated words. ChatGPT facilitated group-based vocabulary and writing activities. These collaborative activities encouraged communication, problem-solving, and teamwork among pupils.

Table 1.5 Personalised Learning

Theme	Sub-theme	Interview Findings	Classroom Observation Findings	Document Analysis Findings
1. Teachers' Application of ChatGPT in English Teaching	Personalized Learning	Teachers used ChatGPT to tailor tasks for different proficiency levels (e.g., Teacher I).	Tasks were adapted to suit pupils’ individual learning paces (e.g., differentiated grammar exercises).	Teachers adapted ChatGPT’s exercises to cater to varying proficiency levels.

Teachers used ChatGPT to differentiate tasks according to pupil proficiency. Teacher I explained that it allowed “exercises at the right level for each pupil.” Data showed teachers assigning simpler tasks to weaker pupils and extension work to advanced learners using AI-generated variations.

Research Question 2: What is the impact of ChatGPT on teaching practices and pupils' learning?

Theme 2: Effects of ChatGPT on Teaching and Learning

Theme	Sub-theme	Interview Findings	Classroom Observation Findings	Document Analysis Findings
Impact of ChatGPT on English Teaching and Pupils' Learning	Limitations in Creativity and Engagement	ChatGPT activities were seen as too generic, lacking pupil engagement (e.g., Teacher C).	Pupils showed less interest in repetitive tasks, but teachers added interactive elements to engage pupils.	Teachers modified ChatGPT materials to include personal, cultural, and creative elements.

Table 2.1 Creativity and Classroom Engagement

While ChatGPT provided structured materials, teachers found it limited in promoting creativity. Teacher C commented that it “doesn’t engage like a real conversation,” and Teacher E noted the lack of cultural relevance in storytelling suggestions. Observations showed greater engagement when teachers enhanced AI outputs with interactive discussions or real-life themes.

Table 2.2 Balancing AI with Traditional Teaching

Theme	Sub-theme	Interview Findings	Classroom Observation Findings	Document Analysis Findings
2. Impact of ChatGPT on English Teaching and Pupils' Learning	Balancing Technology and Traditional Methods	Concerns that ChatGPT reduces personal touch and creativity (e.g., Teacher B).	Over-reliance on technology led to decreased pupil engagement without teacher interaction.	Teachers maintained a balance between technology and traditional methods for effective teaching.

Teachers were cautious about over-reliance on AI. Teacher B stated that excessive use “reduces the personal touch,” and Teacher G highlighted oversimplification of problem-solving. Lessons dominated by AI-generated content saw lower engagement, whereas teacher-facilitated tasks encouraged participation.

Pupil Engagement and Learning

ChatGPT-supported lessons improved structure and pacing, but engagement depended on how teachers adapted materials. Teacher I combined AI-generated tasks with discussions and applications, leading to active participation. In contrast, unmodified content was seen as repetitive, as noted by Teacher G, who said “tweaked quizzes work better.”

DISCUSSION

This discussion interprets the findings through two main themes aligned with the research questions: (1) Teachers' Application of ChatGPT in English Teaching and (2) the Impact of ChatGPT on Teaching and Pupils' Learning. The results are connected to relevant literature to highlight both the affordances and limitations of ChatGPT in Malaysian primary school contexts.

Research Question 1: How do teachers apply ChatGPT in teaching English in Malaysian primary schools?

ChatGPT as a Grammar Support Tool

Teachers used ChatGPT to provide explanations, examples, and quick responses to grammar-related questions. This supported differentiated instruction, consistent with Nguyen and Nguyen (2022). However, teachers noted that the language was often too formal for younger pupils, requiring adaptation—echoing the need for pedagogical mediation highlighted by Spector et al. (2022).

Real-Time Assistance and Feedback

Teachers valued ChatGPT for its immediacy, particularly during grammar and vocabulary activities. The provision of instant answers helped sustain lesson flow and pupil engagement, supporting Wilson and Grossman's (2023) conclusions on feedback and language acquisition. Still, teachers expressed caution that quick responses may not guarantee deep understanding.

Lesson Planning and Content Customization

ChatGPT reduced teachers' planning time by generating draft materials and activity ideas. However, teachers consistently modified outputs to align with pupil age, cultural context, and curriculum requirements. This reinforces past findings that AI enhances efficiency but cannot replace teacher expertise (Jones & MacDonald, 2022).

Reducing Cognitive Load Through Adaptation

Teachers simplified AI-generated materials to ensure accessibility for younger learners. This reflects Sweller et al.'s (2019) cognitive load theory, emphasizing the need to adjust content to pupils' developmental levels. Without such adaptation, ChatGPT's complexity risked disengagement.

Supporting Collaboration and Interaction

Group tasks generated with ChatGPT promoted interactive learning and pupil collaboration. This aligns with Vygotskian perspectives on social learning and shifts towards more pupil-centred activities, as also noted in recent classroom AI research.

Research Question 2: What impact does ChatGPT have on English teaching and pupils' learning?

Efficiency with Limitations in Creativity

ChatGPT was effective for generating worksheets, exercises, and outlines, streamlining teacher workload. However, teachers found AI outputs lacked creativity, spontaneity, and cultural relevance, consistent with Yin and Wang (2021) and Zhang & Lee (2022). This was especially relevant in contexts requiring contextual storytelling or engagement-focused activities.

Teacher Adaptation as a Mediating Factor

Teachers played a crucial role in refining AI-generated materials to suit local needs and maintain engagement. Examples included adding cultural references, simplifying language, and incorporating interactive elements. This reflects Yunus et al. (2023), who emphasize teacher agency in educational technology use.

Classroom Engagement Requires Human Mediation

Observations confirmed that unmodified ChatGPT materials were less engaging. Teachers who supplemented AI content with discussions, real-life contexts, or active learning strategies achieved greater participation, aligning with Lim and Chan (2023) and Lee & Tan (2024).

Balancing Efficiency and Engagement

While ChatGPT enhanced planning efficiency, teachers reported that AI-generated activities were too structured and rigid to sustain interest, echoing Lin et al. (2023). Pupils responded better when teachers blended AI support with creative, dialogic teaching.

Caution Against Over-Reliance

Teachers expressed concern that excessive dependence on ChatGPT could weaken the relational aspects of teaching. This reflects Lim et al. (2023) and Ng et al. (2022), who caution that AI cannot replace human interaction, especially in language learning where emotional connection and responsiveness are critical.

CONCLUSION

This study provides meaningful insights into how ChatGPT is being integrated into English language teaching in Malaysian primary schools. The findings indicate that ChatGPT offers clear advantages, particularly in generating instructional materials, supporting lesson planning, and reducing teachers' administrative workload. These benefits align with broader shifts towards technology-enabled efficiency in education. However, the study also reveals several limitations. Teachers reported that AI-generated content often lacked contextual relevance, creativity, and age appropriateness, requiring substantial adaptation. Pupils' engagement depended heavily on how effectively teachers modified ChatGPT's outputs to suit classroom realities. The findings further suggest that excessive reliance on AI tools may diminish opportunities for personalised instruction and reduce the richness of teacher–pupil interaction—both of which are crucial in language learning.

Overall, the study underscores the importance of a balanced, teacher-mediated approach to AI integration. Rather than functioning as a replacement, ChatGPT should be positioned as a complementary tool that supports, but does not override, pedagogical judgment. Ongoing professional development is essential to help educators use AI meaningfully while preserving creativity, interaction, and cultural relevance in the classroom. Future research should examine the long-term impact of AI-assisted teaching on learning outcomes, teacher autonomy, and inclusivity. Attention should also be given to ethical use, contextual adaptation, and sustainable models of teacher–technology collaboration. Besides that, future research also probably can include multiple schools across urban and rural areas to enhance generalizability. Incorporating pupil perspectives will offer richer insights into engagement, motivation, and perceived learning outcomes.

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