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ENGLISH LANGUAGE EDUCATORS' EXPERIENCES AND PERCEIVED SUPPORT FOR AI TOOLS IN LANGUAGE TEACHING

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Abstract:

The study investigates the experiences and perceived support needed by English language educators in Malaysia when integrating AI tools into teaching practices across three instructional phases. Adopting a convergent parallel mixed-methods approach, quantitative data were gathered from 69 English educators via questionnaires and qualitative insights were obtained through semi-structured interviews with four purposefully selected educators. Guided by Abdous's (2011) Process-Oriented Framework, the findings reveal that while educators predominantly use AI tools for lesson planning (89.9%), AI use declines substantially in the after-lesson phase (59.4%), largely due to technical challenges, insufficient training, and inconsistent institutional support. Notably, the study challenges earlier literature that characterised AI use as exploratory during lessons, instead revealing a robust in-class adoption rate of 78.3%, suggesting growing pedagogical confidence. A support-practice paradox was identified: despite perceived institutional encouragement, the absence of clear policy guidelines and inadequate infrastructure constrain meaningful AI integration. The study underscores the urgent need for comprehensive, subject-specific professional development, improved technological infrastructure, and clearer institutional guidelines to support effective and reflective AI integration across the full instructional lifecycle in Malaysian English Language Teaching.

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Keyword:

Artificial Intelligence; English Language Teaching; Institutional Support; Process-Oriented Framework; Professional Development

Introduction

English language educators in Malaysia are increasingly turning to Artificial Intelligence (AI) tools to navigate the demands of a Common European Framework of Reference (CEFR) aligned curriculum, yet the conditions needed to support this shift remain structurally inadequate (Mahusin et al., 2024; Zhang & Aslan, 2021). While generative tools such as ChatGPT and Gemini have been rapidly adopted to facilitate lesson planning, real-time instruction, and post-lesson feedback (Akbarani, 2023; Gayed, 2025; Shamsuddinova et al., 2024), the lived experiences of the educators navigating this transition remain largely absent from the research literature. Most studies celebrate AI's affordances or document student outcomes, yet few examine how teachers actually experience AI across the full instructional lifecycle and what institutional support, or lack thereof, shapes those experiences (Holmes et al., 2023; Zawacki-Richter et al., 2019). This gap is not merely academic; in a context where infrastructure is uneven, training is inconsistent, and policy guidance is sparse, understanding educators' experiences is a prerequisite for any meaningful AI integration agenda.

AI tools do offer genuine affordances for English Language Teaching (ELT). They personalise learning experiences to meet individual student needs (Rukiati et al., 2023), allow for the customisation of instructional materials (Crompton et al., 2024), and platforms like Grammarly provide immediate corrective feedback. The automation of administrative tasks such as grading and assignment distribution further frees educators to engage in more meaningful teacher-student interactions (Idham et al., 2024). Yet these benefits remain unevenly realised in practice.

The reasons for this unevenness are well documented. Most research focuses narrowly on AI integration for lesson planning (Mohammadi et al., 2024; Yilmaz & Durmus, 2024), while application during active instruction remains underexplored (Holstein et al., 2019). Literature addressing educators' experiences across the complete instructional lifecycle, before, during, and after lessons, remains conspicuously absent (Holmes et al., 2023; Zawacki-Richter et al., 2019). Implementation is further complicated by inconsistencies in practice (Shamsuddinova et al., 2024), mixed attitudes regarding academic integrity (Mehdaoui & Bessaid, 2024), varying levels of AI literacy (Ayanwale et al., 2024), inadequate infrastructure (Sayari, 2025), and a lack of clear pedagogical frameworks (Qayyum et al., 2025; Semwaiko et al., 2024). This fragmentation constitutes the central gap this study addresses.

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By adopting Abdous's (2011) Process-Oriented Framework, this study provides a systematic exploration of how English language educators act and reflect through the three phases of instruction. This fuller understanding of AI's impact on lesson planning, classroom practice, and post-lesson feedback (Al-Zahrani, 2024) offers practical guidance for educators and critical insights for policymakers seeking to inform clearer AI guidelines and improved professional development (Crompton et al., 2024). Specifically, this study aims to:

1. Explore English language educators' experiences with using AI tools before, during, and after lessons.
2. Investigate the perceived institutional support English language educators receive when integrating AI tools into their teaching practices.

Literature Review

Artificial Intelligence (AI) in English Language Teaching (ELT)

In Malaysia, the English language curriculum is fundamentally structured by the CEFR, which provides a global benchmark for language proficiency and dictates the parameters for instruction and assessment across educational tiers (Ahmad Afip et al., 2019). The integration of AI into ELT has expanded rapidly within this context, presenting a dual landscape of unprecedented pedagogical opportunities and systemic complexities (Jose & Jose, 2024; Holmes & Tuomi., 2022).

AI tools offer significant affordances for language instruction by facilitating personalised learning trajectories that cater to individual student proficiencies. Platforms powered by AI analyse student performance to tailor instructional content (Rukiati et al., 2023), while technologies such as Grammarly provide instantaneous linguistic feedback (Idham et al., 2024). Beyond direct instruction, AI streamlines administrative burdens including automated grading and assignment distribution, thereby liberating educators to engage in more nuanced teacher-student interactions (Idham et al., 2024).

Despite the surge in research surrounding AI in ELT, existing literature remains significantly fragmented. Current research predominantly emphasises the 'Before' phase of instruction, specifically AI-assisted lesson planning and content generation (Mohammadi et al., 2024; Yilmaz & Durmus, 2024). Conversely, 'After-lesson' applications such as data-driven reflective practice and automated assessment are frequently treated as peripheral administrative tasks rather than core pedagogical components (Boubker, 2024; Wulandari & Purnamaningwulan, 2024). This fragmentation constitutes a critical research gap in ELT, there is a need for a holistic understanding of how an educator's AI-assisted design phase directly informs real-time classroom orchestration and subsequent reflective evaluation (Holmes et al., 2023; Zawacki-Richter et al., 2019). Furthermore, while technical barriers in rural contexts are well-documented (Kamarullah et al., 2024; Roshan et al., 2024), there is a profound lack of evidence regarding how perceived institutional support influences educators' decision-making across this entire instructional lifecycle. This study directly addresses this gap.

Theoretical Lens: Process-Oriented Framework

The theoretical foundation of this study is Abdous's (2011) Process-Oriented Framework, which conceptualises technology integration as a multidimensional construct requiring diverse

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competencies throughout a cyclical lifecycle. This framework is structured around three sequential yet non-linear phases: (1) Before, involving preparation, planning, and design; (2) During, focusing on facilitation, interaction, and the gathering of feedback; and (3) After, dedicated to reflection and the consideration of lessons learned. By moving beyond a static perception of technology adoption, this framework provides a systemic understanding of the shifting roles and competencies required of educators as they navigate digital environments (Figure 1).

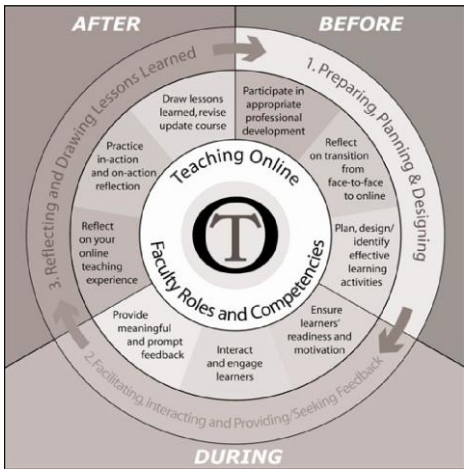

Figure 1: Process-Oriented Framework

Source: Abdous, 2011

In the before-lesson phase, educators plan lessons, curate content, and select teaching tools, including AI-generated materials tailored to students' proficiency levels (Mishra & Koehler, 2006). The during-lesson phase focuses on implementing AI in classroom activities and understanding its influence on student learning (Zhu et al., 2025). In the after-lesson phase, educators reflect on the lesson, evaluate outcomes, and plan future improvements while utilising AI-generated insights for professional growth (Zhu et al., 2025). Critically for this study, the framework also highlights perceived support needs at each phase: professional development and technical assistance before teaching (Holmes et al., 2023), peer networks and troubleshooting support during lessons (Venkatesh et al., 2016), and guidance on evaluating AI's impact after teaching (Tay, 2024).

The framework has demonstrated its capacity to map the complexities of instructional practice within the Malaysian educational landscape. Izhar et al. (2021) adapted this framework to identify critical challenges faced by educators during the sudden transition to online teaching, revealing that different instructional phases demand distinct competencies and unique barriers. Izhar et al. (2022) further utilised this lens to categorise intrinsic and extrinsic barriers, highlighting that while extrinsic factors like infrastructure are highly visible, intrinsic factors such as educator confidence and lesson planning are the most significant hurdles to instructional readiness. In the context of AI integration, Zhu et al. (2025) applied the framework to evaluate the integration of the DeepSeek model in higher education, finding that while AI offers support across the entire instructional arc, its transformative potential is most pronounced in the 'Before' phase. Unlike knowledge-centric models such as TPACK, which primarily categorise what educators know, the Process-Oriented Framework examines how educators act as active mediators of technology, making it particularly well-suited for the present study.

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Applying the Process-Oriented Framework to AI Integration in ELT

The contemporary shift in ELT is increasingly defined by the integration of AI across all three instructional stages identified by Abdous (2011). Within the *Before* phase, AI is transforming the educator's role from a consumer of materials to a designer of adaptive content. Yeh (2024) highlights that AI supports the creation of interactive and personalised resources, while generative tools like ChatGPT facilitate time-saving lesson planning and content sequencing (Boubker, 2024; Wulandari & Purnamaningwulan, 2024). However, a critical tension exists: the effective use of these tools is fundamentally predicated on robust infrastructure, and the digital divide in rural areas acts as a significant barrier to these preparatory practices (Kamarullah et al., 2024).

Within the *During* phase, Zainuddin (2024) highlights AI's capacity to enhance classroom interactivity and student motivation. AI's ability to provide real-time feedback and immediate instructional support is cited as a primary driver of learner autonomy (Huang et al., 2024; Tiwari, 2024). Yet a pedagogical paradox emerges while tools like virtual tutors offer individualised practice, there are growing concerns that such reliance may disrupt classroom flow or erode traditional teacher-student rapport, risking a superficial learning environment if not anchored in sound pedagogical judgment.

In the *After* phase, AI tools play a pivotal role in assessment and reflective practice. Post-lesson applications, such as customised assessment through platforms like Quizizz, demonstrate AI's potential to streamline grading and reduce workload (Wulandari & Purnamaningwulan, 2024; Boubker, 2024). However, educators have expressed caution that automated grading systems may lack the human discernment required for accurate linguistic assessment, potentially introducing bias or failing to capture the depth of student progress (Özkan et al., 2024). Across all three phases, a consistent pattern emerges: the successful integration of AI is constrained by gaps in educators' technical literacy, a lack of targeted training (Ghiasvand et al., 2024; Hago Elmahdi et al., 2024), and ethical anxieties regarding academic integrity (Mabuan, 2024). These challenges point to a support-practice gap that this study empirically investigates.

Perceived Support for AI Integration in Instructional Practice

As AI technologies continue to evolve in education, institutional support emerges as a key determinant of effective implementation. Roshan et al. (2024) found a statistically significant correlation between participation in AI-related training and increased teacher confidence, while also revealing that 70% of teachers had not received any form of AI-specific professional development, highlighting a critical support gap. Moy and Feldstein (2024) described a novel approach through "AI Institutes" in which educators are provided with hands-on experiences modelling appropriate ways to teach and learn with generative AI tools. Such subject-specific initiatives are essential for ensuring meaningful and ethical AI integration (Karki & Karki, 2025; Kohnke et al., 2023).

Infrastructure factors also play a vital role. Roshan et al. (2024) reported that 40% of educators cited insufficient resources as a barrier to AI implementation, a finding supported by Kumar (2024) who highlighted that poor internet connectivity and inadequate infrastructure disproportionately hinder progress in rural and under-resourced areas. The freemium model of many AI tools further creates financial barriers that limit equitable access (Blahopoulou &

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Ortiz-Bonnin, 2025). Without institutional support to address these constraints, meaningful AI integration is likely to remain uneven.

Clear institutional policies are equally critical. Bakhadirov and Alasgarova (2024) suggested that schools develop clear policies and frameworks to address both the technical and pedagogical aspects of AI adoption. Chan (2023) introduced a comprehensive AI Ecological Education Policy Framework addressing the pedagogical, governance, and operational dimensions of AI integration. Leadership support has also emerged as an important factor: Zeng et al. (2025) highlighted the role of digital leadership in mitigating teacher barriers such as lack of training and limited resource access, while Sanders and Mukhari (2024) identified administrative backing as critical for successful AI integration. Collectively, these studies emphasise that integrated institutional measures encompassing training, infrastructure, policy, and leadership are essential prerequisites for effective AI implementation in education.

Methodology

This study employed a convergent parallel mixed-methods design (Creswell & Plano Clark, 2018) to investigate English language educators' experiences with AI tools, guided by Abdous's (2011) Process-Oriented Framework, and their perceived support. In this design, equal weight is given to both quantitative and qualitative inquiry (Figure 2). Quantitative data capturing the breadth of patterns in AI use and support were collected via questionnaire, while qualitative data capturing the depth of educators' experiences were gathered through semi-structured interviews and open-ended questionnaire items. The two data strands were collected concurrently, analysed independently, and then merged at the interpretation phase for comparison and integration (Creswell & Plano Clark, 2018).

The framework guides instrument design, data collection, coding categories, data analysis, and interpretation. To enhance trustworthiness, multiple triangulation strategies were employed. First, data triangulation was achieved by comparing and integrating findings from the semi-structured interviews with both Likert-scale and open-ended survey responses. Second, analyst triangulation was ensured through independent coding by two researchers, with discrepancies resolved through discussion. Third, member checking was conducted to verify the accuracy of interview transcripts and preliminary interpretations with participants (Creswell & Poth, 2018). Content analysis with frequency counts was applied to open-ended responses to support quantitative interpretation of emerging patterns.

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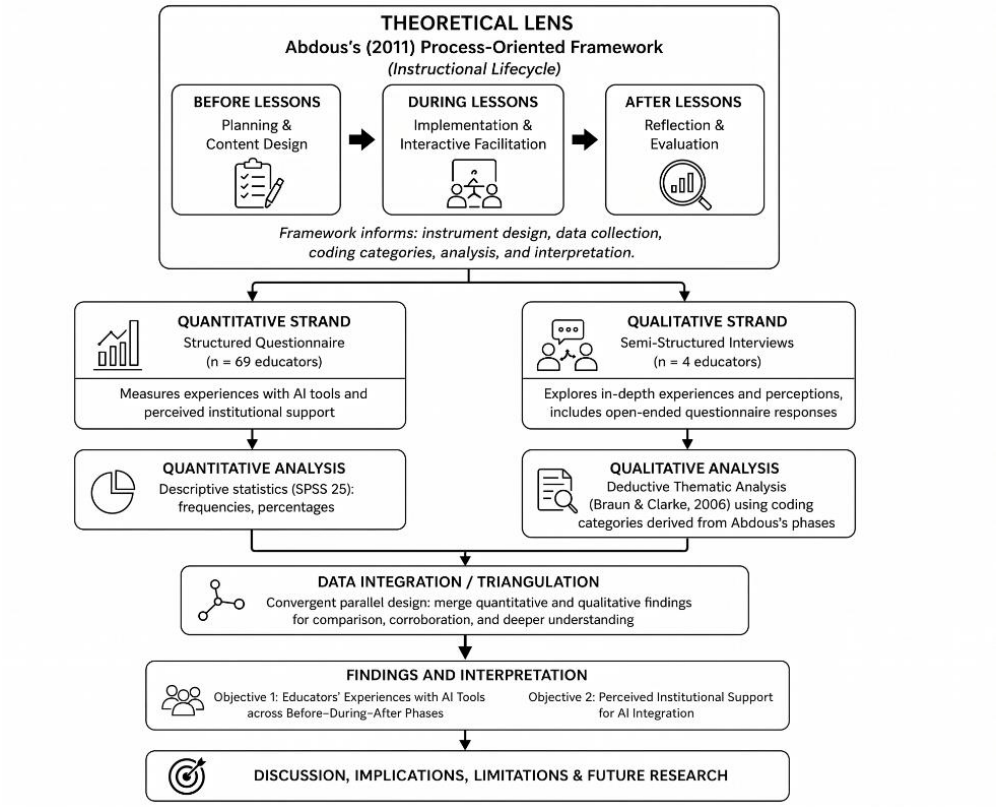

Figure 2: Flowchart of Convergent Parallel Mixed-Methods Design Implemented in This Study

Sampling

A total of 69 English language educators (R1–R69) participated in the quantitative phase by voluntarily completing the questionnaire. Convenience sampling was employed to efficiently access participants across various educational institutions. Respondents were fully informed of the study's purpose, their rights, and the voluntary nature of their participation prior to completing the questionnaire (Creswell & Poth, 2018).

Four educators were purposefully selected for the qualitative phase based on three criteria: (1) currently teaching English, (2) prior experience using AI tools in instruction, and (3) willingness to share their experiences in depth. A small purposeful sample is methodologically appropriate in phenomenologically oriented qualitative inquiry, where the goal is depth of understanding rather than statistical representation (Creswell & Poth, 2018). Consistent with the principle of informational redundancy, Guest et al. (2006) demonstrated that thematic saturation is commonly achieved within four to six interviews when the research focus is narrow and participants are homogeneous, conditions that are met in the present study. For confidentiality, informants were pseudonymously coded as EE1 to EE4 (Table 1).

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Table 1: Informants' Demographic Background

No.	Pseudonym	Gender	Teaching Experience	Institution
1	EE1	Female	21 years	Primary School
2	EE2	Male	12 years	Primary School
3	EE3	Male	10 years	University
4	EE4	Female	16 years	University

Data Collection

The questionnaire was adapted from Gayed (2025) and Ng et al. (2024) and comprised Likert-scale items, multiple-choice questions, and open-ended items. These components measured the frequency and perceived usefulness of AI use and gathered contextual insights into challenges faced at each instructional phase, addressing both research objectives. Semi-structured interviews explored educators' experiences with AI tools across the three instructional phases and their perceptions of institutional support. Interviews were conducted individually at times selected and agreed upon by informants, lasting 20–25 minutes each, and were audio-recorded with informed consent (Creswell & Creswell, 2018). Both the questionnaire and interview protocol were validated by two experts in English education and educational technology with 10–13 years of research experience. The reliability of the questionnaire was assessed using Cronbach's alpha (α = .903), indicating high internal consistency (Taber, 2018). Ethical considerations were central to the study, with informed consent obtained from all participants prior to data collection.

Data Analysis

Quantitative data from questionnaires were analysed using SPSS to generate descriptive statistics including means, standard deviations, frequencies, and percentages. Qualitative interview data were analysed deductively using a coding scheme aligned with the three phases of Abdous's (2011) Process-Oriented Framework and pre-established themes from the literature (Fereday & Muir-Cochrane, 2006). Two researchers independently coded the transcripts; discrepancies were resolved through discussion and mutual agreement (Braun & Clarke, 2006). Open-ended survey responses were analysed through content analysis, with frequency counts used to identify and quantify recurring patterns.

Findings

Respondent Profiles

Of the 69 questionnaire respondents, 78.3% (n = 54) were female and 20.3% (n = 14) were male, and one (1.4%) preferred not to disclose their gender. This female-dominant distribution is characteristic of the Malaysian English language teaching workforce as shown in Figure 3.

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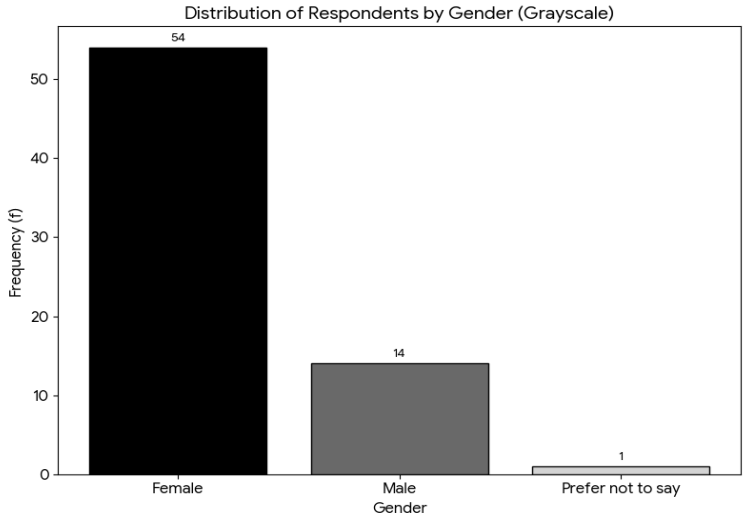

Figure 3: Gender Distribution of Respondents

In terms of educational background, respondents were evenly distributed between Bachelor's degree holders (n = 34, 49.3%) and Master's degree holders (n = 34, 49.3%), with one doctoral graduate (1.4%), reflecting a highly qualified participant pool as summarised in Figure 4.

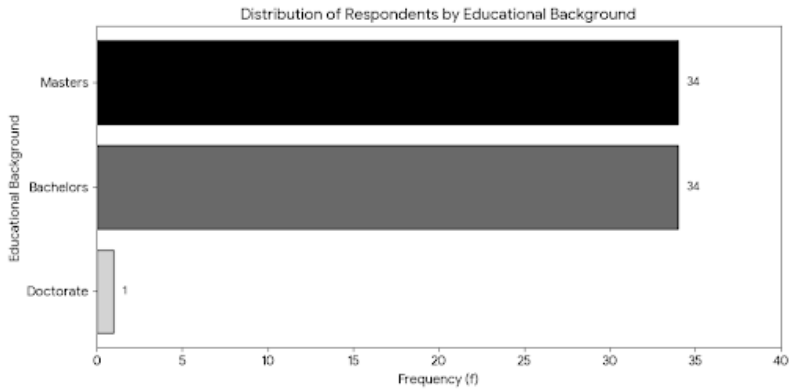

Figure 4: Educational Background of Respondents

Regarding institutional affiliation, the largest group was from universities or colleges (n = 27, 39.1%), followed by primary schools (n = 23, 33.3%) and secondary schools (n = 18, 26.1%), ensuring representation across educational levels illustrated in Figure 5.

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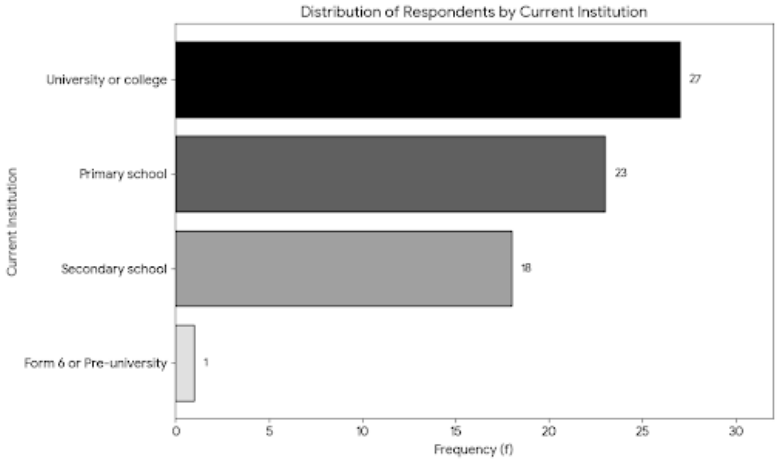

Figure 5: Institutional Distribution of Respondents

Teaching experience was concentrated in the mid-to-senior career range, with the largest cohort having 15–16 years of experience (n = 21, 30.4%) detailed in Figure 6.

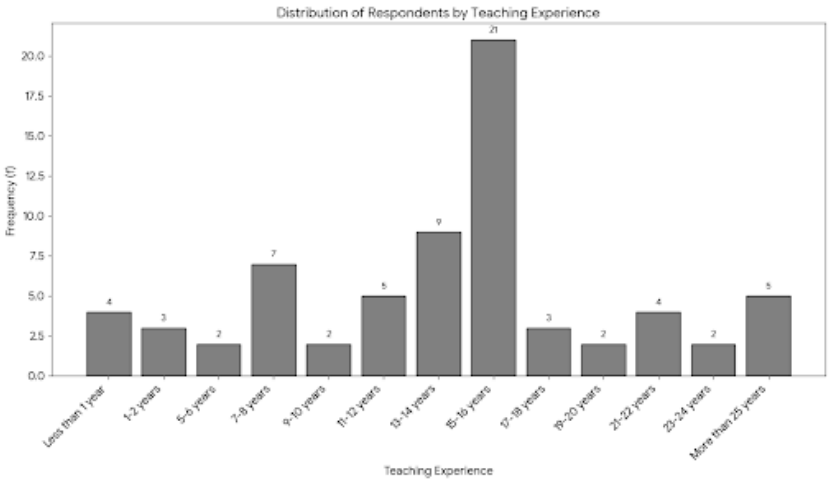

Figure 6: Teaching Experience of Respondents

English Language Educators' Experiences with AI Tools Before, During, and After Lessons

The study identified a high yet uneven level of AI adoption among English language educators. Quantitative data revealed that lesson preparation serves as the primary entry point for AI integration, with 89.9% (n = 62) of educators utilising these tools before teaching. Of these users, 35.5% rated the tools as "extremely helpful" and 56.5% as "moderately helpful." In-class implementation remained robust at 78.3% (n = 54), with 83.3% of in-class users reporting high perceived utility, a finding that notably challenges Holstein et al.'s (2019) characterisation of AI classroom use as exploratory. A significant decline was observed in the after-lesson phase, where usage dropped to 59.4% (n = 41). Qualitative insights corroborated these patterns, identifying ChatGPT as the dominant platform (used by over 75% of educators), followed by Canva (13%) and specialised tools such as SpeechAce, Grammarly, and Gemini.

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Before Lessons: Planning and Content Design

Consistent with the Before phase of Abdous's (2011) framework, the findings reveal a clear transition among educators from traditional lesson execution to active AI-assisted design. Educators' primary motivation for AI adoption in this phase was efficiency: as EE1 noted, tools *"save me time by automatically generating lesson plans."* EE2 similarly described AI as a regular component of practice, stating *"when it comes to lesson planning, basically I use AI quite a bit."* Beyond efficiency, educators valued the comprehensiveness of AI-assisted planning; EE3 highlighted that *"when it comes to AI, it will consider all angles,"* suggesting a shift from procedural task management to a more holistic, design-oriented pedagogical stance. Content creation emerged as a critical function, with 77.7% of educators using AI to develop instructional materials and 75.8% using it to generate examples. EE4 elaborated: *"I also use ChatGPT to generate materials for my lessons… it actually allows me to create more interesting content."* EE3 described a sophisticated prompting process, providing ChatGPT with detailed parameters including activity type, timing, and student proficiency level to generate highly tailored lesson resources. This mirrors the preparatory design competencies emphasised by Abdous (2011) and reflects the growing role of prompt literacy as an instructional skill in AI-mediated education. This finding extends Abdous's (2011) conceptualisation of the *Before* phase by suggesting that AI-mediated lesson planning requires not only traditional design competencies but also prompt literacy, whereby educators strategically formulate and refine prompts to generate pedagogically appropriate instructional materials.

During Lessons: Real-Time Interaction and Scaffolding

Consistent with the During phase of Abdous's (2011) framework, which centres on facilitation and interaction, AI served to transform classrooms into more dynamic and responsive environments. EE2 described AI as transformative for student engagement: *"the use of AI tools in my classroom really enhances my lesson and actually attracts their attention."* This interactivity was reflected in the 63% of educators who utilised AI for engaging classroom activities. The provision of real-time feedback was a pivotal application (used by 42.6%): EE4 described using SpeechAce *"to give students real-time feedback on their pronunciation,"* while EE2 noted that Grammarly *"really gives you the immediate feedback of what the students have to do."*

On-the-spot instructional support was another key function. EE2 described a practice of allowing students to access Siri or ChatGPT for *"quick answers related to grammar, comprehension, or pronunciation during class activities,"* a strategy supported by 61.2% of educators. Most educators reported high confidence in guiding students during this phase, with 37.7% agreeing and 21.7% strongly agreeing that they feel confident facilitating AI-supported activities. Taken together, these patterns suggest that educators are not merely tolerating AI in the classroom but are actively leveraging it as a scaffold for real-time language development.

After Lessons: Assessment and Reflective Growth

The after-lesson phase, corresponding to Abdous's (2011) reflection and evaluation stage, showed the lowest adoption rate, yet revealed emerging practices in personalised feedback and data-driven professional growth. EE3 described how SpeechAce provides performance feedback aligned with CEFR bands, enabling students to *"identify their weaknesses and work*

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on improving them." This aligns with survey data where 73.2% of educators used AI for personalised post-lesson feedback. Progress tracking was utilised by 48.8% of educators: EE1 remarked, *"They help me to track how students are doing overall and give me detailed data on which areas need more attention. This helps me adjust my future lessons."* Additionally, EE1 described leveraging AI data for professional reflection: *"I can reflect on the lesson using AI data to see what worked and what did not, which helps me improve every time."* Despite these benefits, the high missing data rate (43.5%) in this phase indicates that many educators remain exploratory in their post-lesson AI use, suggesting that the full potential of AI as a reflective partner, as envisaged by Abdous's framework, is yet to be realised.

Challenges and Mitigation Strategies Across Instructional Phases

Pedagogical and Technical Hurdles Before Lessons

During the planning and preparation phase, the most significant challenge was the accuracy and relevance of AI-generated content (38.8%). Educators frequently encountered suggestions misaligned with diverse student backgrounds and proficiency levels. R17 noted: *"Sometimes the activities provided are too easy or too difficult. I will have to manage the activities according to students' proficiency."* A related challenge was prompt refinement (34.3%), where educators struggled to elicit desirable outputs. R11 addressed this by iteratively *"giving more specific prompts,"* while EE3 corroborated that ChatGPT and DeepSeek work *"more effectively based on specific prompts."* Technical and access barriers (17.9%) also posed preparatory disruptions, including unstable internet connections (R7) and subscription limitations (R19). A smaller group (9.0%) cited a lack of personal AI proficiency as a primary barrier. Table 2 presents the coded themes with frequencies.

Table 2. Challenges in the Before-Lesson Phase and Strategies for Overcoming Them

Responses From Open-Ended Item	Coded Themes	Frequency (f)	Percentage (%)
'Sometimes the activities provided are too easy or too difficult. I will have to manage the activities according to students' proficiency.' (R17)	Accuracy Issues Materials not suitable for students/Diverse background	26	38.8
'The responses are not as accurate as intended and need a little change to suit the lesson of the day.' (R32)	Need for Human Oversight		

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'Sometimes,I received answers /suggestions not as what I expected in terms of format, not CEFR-aligned and too general. What I did is by giving more specific prompts.' (R11) 'So far I often find the need to figure out good prompts for desirable output is a bit challenging.' (R61)	Prompt Refinement Challenges - Specificity and Clarity - Iteration and Experimentation	23	34.3
'Internet connection since my school is currently having trouble with the unstable connection. Therefore I had to use my own mobile data to use the internet.' (R7) 'Limitation of credits, need to subscribe monthly/yearly for more special features. To overcome this, create a few accounts or register as official educators.' (R19)	Technical and Access Barriers - Internet Connection Issues - Subscription. Access Limitations - Technical Support/ Infrastructure	12	17.9
'Not proficient in AI.' (R6)	Lack of AI Proficiency	6	9.0
Total		67	100

Real-Time Orchestration Challenges During Lessons

During active instruction, technology and infrastructure limitations emerged as the dominant barrier (44.7%). Educators often faced device scarcity and facility limitations that disrupted AI-supported lessons. R14 noted that *"The Internet coverage and the facilities provided are not enough,"* leading some educators to use personal devices as substitutes. EE2 described lending personal phones and tablets to students for grammar activities. Student-related challenges (26.3%) also emerged, particularly around over-reliance and misuse. R30 observed that *"Pupils misuse it and provide vague responses,"* while R32 expressed concern that students *"become overly reliant on the tool and have a difficult time brainstorming by themselves."* Instructional efficiency and output unpredictability (21.1%) were further concerns, with R58 noting that identical prompts often produced different results, generating student confusion. Table 3 presents these findings with frequencies.

Table 3: Challenges in the During-Lesson Phase and Strategies for Overcoming Them

Responses From Open-Ended Item	Coded Themes	Frequency (f)	Percentage (%)
'The Internet coverage and the facilities provided are not enough. Using my own equipment and try to	Technology and Infrastructure Limitations	17	44.7

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provide as much as I could to pupils.' (R14)	- Device Scarcity - Internet Issues - Facility Limitations		
'Pupils misuse it and provide vague responses. Set rubrics for assignments.' (R30) 'Some pupils are not familiar with ChatGPT and some of them need help in writing the intended & specific prompt.' (R10) 'The students become overly reliant on the tool and having a difficult time brainstorming by themselves without it.' (R32)	Student-Related Challenges - Over-Reliance on AI - Lack of AI Skills - Misuse of AI	10	26.3
'My students are still lacking the basic skills to use the computer, so it's time consuming to use this during lesson because I had to guide my students personally.' (R7) 'Sometimes it is hard to get what exactly we want for the lessons. It wastes our time. So it is better to prepare earlier.' (R17) 'It's unpredictability in the results even when the same prompts are used. It creates series of queries from students asking explanations on differences of the results.' (R58)	Efficiency & Output Quality - Time-Consuming Use - Inefficiency / unpredictability of the output	8	21.1
'Lack of focus on students' part. Specify tasks and time frame accordingly based on tasks with / without AI use.' (R37)	Lesson Management - Student Distraction/Excitement - AI Making Tasks Too Easy	3	7.9
Total		38	100

Reliability and Assessment Dilemmas After Lessons

The after-lesson phase was predominantly defined by skepticism regarding AI feedback and assessment reliability (71.4%). Educators expressed profound doubt regarding the depth of AI evaluations. R65 stated: "I will still manually grade because AI hasn't given me accurate grading of student's work thus far." R17 noted that AI focuses narrowly on grammatical errors

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and fails to generate rubric-aligned comments, necessitating continued human evaluation. Implementation and access hurdles (17.9%) also persisted post-lesson, including limited access to AI tools (R26) and uncertainty about applying AI to handwritten tasks (R48). Student-related challenges (10.7%) included non-completion of AI-mediated tasks. Table 4 presents these findings.

Table 4: Challenges in the After-Lesson Phase and Strategies for Overcoming Them

Responses From Open-Ended Item	Coded Themes	Frequency (f)	Percentage (%)
'As for essays, it's time saving in the sense where we can let chatgpt check the essay. But I will still manually grade because AI hasn't given me accurate grading of student's work thus far.' (R65) 'Sometimes AI doesn't really provide personalised feedback. It focuses more on grammatical errors. I still have to read and come up with my own comments based on the rubric.' (R17) 'The data generated using Al may not be accurate to assess pupils' performance. In order to overcome this, teacher to integrate AI with 'human touch' assessment as well.' (R45)	AI Feedback and Assessment Inaccurate/ Inappropriate Feedback Efficiency Concerns Reliability of AI Assessment Efficiency Concerns	20	71.4
'Limited access to AI tools.' (R26) 'I have not explored on using AI tools grade students' essay though i know it would help me a lot.' (R9) 'I'm not sure how they can help with handwritten tasks.' (R48) 'To get the data after class, will take sometimes, so I usually set the time.' (R66)	Implementation and Access Limited Resources Lack of Knowledge/ Exploration Time Constraints	5	17.9
'Students do not do their tasks because they struggle with AI.' (R39 & R69) 'Some students didn't complete the tasks I've given.' (R7)	Student-Related Challenges Student Task Completion Student struggle	3	10.7
Total		28	100

Perceived Institutional Support and Training Needs

Perceived Institutional Support for AI Integration

Perceptions of institutional support revealed a polarised trend between general encouragement and specific practical guidance (Table 5). Educators felt most strongly that their institutions encourage and support AI integration (M = 4.00, SD = .857) and reported feeling confident in their AI use due to this perceived backing (M = 3.77, SD = .860). However, the provision of

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clear guidelines for classroom AI use received the lowest mean score (M = 3.14, SD = .974), indicating a deficit in institutional policy that leaves educators without clear direction. Furthermore, 49.3% of educators perceived that their institutions "supported but did not formally reward" innovative teaching practices, while 34.8% indicated that innovation was left largely to individual initiative. Despite these gaps, a majority (56.5%) expressed an optimistic outlook on AI's future role in their teaching.

Table 5: Perceived Institutional Support for Integrating AI into Teaching Practices (N = 69)

Item	M (SD)	Strongly Disagree (%)	Disagree (%)	Neutral (%)	Agree (%)	Strongly Agree (%)
I feel confident using AI in class because of the support from my institution.	3.77 (.860)	0	5 (7.2)	20 (29)	30 (43.5)	14 (20.3)
My institution encourages and supports the integration of AI in my teaching practice.	4.00 (.857)	0	4 (5.8)	13 (18.8)	31 (44.9)	21 (30.4)
My institution offers training on how to use AI in education.	3.68 (.978)	3 (4.3)	4 (5.8)	17 (24.6)	33 (47.8)	12 (17.4)
My institution gives clear guidelines for using AI in the classrooms.	3.14 (.974)	5 (7.2)	9 (13)	30 (43.5)	21 (30.4)	4 (5.8)
My institution supports new and creative ways of using AI in teaching.	3.80 (.850)	0	5 (7.2)	18 (26.1)	32 (46.4)	14 (20.3)

Professional Development and Support for AI Integration

Quantitative and qualitative data identified a significant gap in professional development for AI. Only 49.3% of educators had attended professional development courses on AI, while 50.7% had not. A strong demand for training was expressed by 59% (n = 36) of educators, with EE1 suggesting that support should be organised at higher administrative levels: "It would be great if my school could offer more training… it can also be from the PPD or JPN." Educators exhibited a specific preference for subject-specific training, with EE4 emphasising the need for "focus training on AI apps for teachers, for English language teaching."

Table 6 presents educators ranked preferences for AI training topics. AI-based digital assistants (tutors) emerged as the most preferred topic (M = 1.93, SD = 1.375), followed by AI agents in the smart classroom (M = 2.83, SD = 1.175). AI in education: ethical frameworks was ranked the least preferred (M = 3.54), though its high standard deviation (SD = 1.410) indicates polarisation in views on the immediate relevance of ethical training. Additionally, EE3 expressed hope for school-funded access to premium AI platforms to utilise more advanced features beyond free-tier limitations.

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Table 6: Prospective Topics of AI Training Desired by Educators

No	Items	Mean	Std. Deviation
1	AI-based digital assistants (tutors) and their application to education	1.93	1.375
2	AI-based learning analytics	3.33	1.314
3	AI in school management systems	3.38	1.189
4	AI agents in the smart classroom	2.83	1.175
5	AI in education: ethical frameworks	3.54	1.410

Discussion

The integration of AI into English language pedagogy in Malaysia represents a significant shift from traditional instructional methods toward a technology-mediated, design-based approach. When interpreted through Abdous's (2011) Process-Oriented Framework, the findings illuminate both the promise and the systemic constraints of this transformation, revealing a consistent pattern across all three phases: educators are actively adopting AI tools, yet full integration across the instructional lifecycle remains hampered by what this study terms a *support-practice paradox.*

The Dominance of Preparatory Design and the Post-Lesson Void

The findings confirm that the Before phase, encompassing planning and content creation, serves as the primary anchor for AI integration among Malaysian ELT educators. This pattern is consistent with the Process-Oriented Framework's emphasis on preparatory design as the foundation of instructional coherence (Abdous, 2011) and aligns with broader findings in the literature: Zhu et al. (2025) similarly observed that AI's transformative impact is most pronounced in preparatory efficiency, while Wulandari and Purnamaningwulan (2024) and Boubker (2024) documented strong AI uptake in lesson planning and content generation.

Importantly, however, the present study advances beyond mere documentation of AI use in the Before phase. The finding that educators describe AI as considering "all angles" in planning suggests a qualitative shift in pedagogical design-thinking: AI is functioning not merely as a shortcut but as a cognitive partner in constructing comprehensive lesson architecture. This aligns with the competency development emphasis of Abdous's (2011) framework and represents a more sophisticated form of human-AI collaboration than has been reported in prior Malaysian ELT research. From a theoretical perspective, this finding extends Abdous's (2011) conceptualisation of the Before phase by suggesting that AI-mediated lesson planning requires not only traditional design competencies but also prompt literacy, whereby educators strategically formulate and refine prompts to generate pedagogically appropriate instructional materials.

In contrast, the significant decline in AI use in the After phase, from 78.3% during lessons to 59.4% post-lesson, reveals what this study terms a post-lesson void. This finding extends Holstein et al.'s (2019) observation that educators remain exploratory in classroom orchestration by demonstrating that the gap is most acute not during instruction, but in the

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reflective and evaluative stage that Abdous (2011) identifies as essential for long-term professional growth. The persistent reluctance to use AI for post-lesson assessment is driven not by disinterest, but by well-founded skepticism: educators' concerns about inaccurate grading and lack of nuanced linguistic feedback align with Özkan et al.'s (2024) findings that AI tools cannot yet fully replicate the reflective judgment required for authentic language assessment. This cautious stance represents the exercise of professional agency, not technological aversion.

The Support-Practice Paradox and Infrastructure Disparities

A critical contribution of this study is the identification and naming of the *support-practice paradox*: educators perceive high levels of institutional encouragement (M = 4.00) yet simultaneously lack the clear policy guidelines (M = 3.14) and reliable infrastructure needed for consistent implementation. This paradox constitutes a structural contradiction: institutions signal support in principle while failing to provide the operational conditions necessary for that support to be enacted in practice. This mirrors the infrastructure challenges documented by Izhar et al. (2021) during Malaysia's transition to online teaching, where technological access remained the most prevalent hurdle despite institutional intent.

The necessity for educators to use personal mobile data and devices reinforces the digital divide highlighted by Kamarullah (2024) and Kumar (2024), suggesting that AI integration currently functions as an *urban privilege*: educators in under-resourced or rural areas must perform additional invisible labour to compensate for systemic infrastructure failures. This has equity implications that extend beyond individual teaching quality to the structural fairness of technology-mediated education in Malaysia. Addressing this paradox requires institutions to move from declarative encouragement to operational support, including the formulation of explicit classroom AI policies, investment in connectivity, and the provision of institutional device access.

Educator Agency: The Necessity of the Human-in-the-Loop

Despite the efficiency promised by AI, the findings reveal a robust sense of educator agency among Malaysian teachers. The skepticism regarding AI-driven grading, the preference for "human touch" assessment, and the practice of iteratively refining AI outputs indicate that educators are not passive adopters of technology. Rather, they act as active mediators who strategically filter and adapt AI suggestions to meet the diverse proficiency levels and curriculum requirements of the CEFR context. This aligns with Abdous's (2011) framing of the educator as a competent mediator of technology, rather than a subordinate to it.

This cautious stance resonates with Özkan et al.'s (2024) argument that AI tools should enhance teaching efficiency without displacing the nuanced linguistic judgment only a human practitioner can provide. The persistent concern regarding student over-reliance and the erosion of critical thinking skills also aligns with the ethical anxieties documented by Mabuan (2024). By maintaining evaluative authority, educators preserve the human dimensions of language learning that automated algorithms cannot replicate, reflecting what Biesta (2009) terms the "messiness" of genuine human-led inquiry.

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Educators' strong preference for subject-specific AI training, particularly AI-based digital tutors and smart classroom agents, signals a prioritisation of immediate classroom utility over policy literacy (Karki & Karki, 2025). While this is pragmatically understandable, it also represents a significant risk. Without formal grounding in the ethical and policy dimensions of AI (Chan, 2023), implementation remains reactive and potentially inequitable. As Kohnke et al. (2023) argue, sustainable AI integration in language education requires not only technical training but the cultivation of critical AI literacy, defined as the capacity to evaluate, adapt, and challenge AI-generated content within specific socio-educational contexts.

Findings suggest that while educators are increasingly engaging with AI, consistent and confident use across all stages of teaching remains limited, particularly in the after-lesson phase. Educators tend to rely on a small range of familiar tools, using them primarily for content generation and basic task automation, reflecting what Vera (2023) describes as the need for a more receptive and adaptive stance toward AI's broader possibilities. Roshan et al. (2024) found that the absence of targeted professional development directly constrains educators' readiness to adopt AI beyond familiar functions. Institutional support, where it exists, remains inconsistent and often too generic to address the specific pedagogical challenges educators face, creating discrepancies in how and when AI is meaningfully incorporated into teaching practice (Alqahtani & Wafula, 2025).

The divergence around ethical training, reflected in its high standard deviation, further suggests a divide between educators who recognise the urgency of AI ethics and those who regard it as secondary. To address this, professional development frameworks must be redesigned to integrate ethical reasoning as a practical competency woven throughout subject-specific training, rather than as an abstract standalone topic. Institutions should also formalise peer-sharing networks and reward mechanisms for innovative AI use (Alqahtani & Wafula, 2025), thereby creating the enabling conditions for educators to transition from surface-level AI experimentation to systematic, evidence-informed AI integration across the full instructional lifecycle (Kohnke et al., 2023).

Conclusion

This study reveals a theoretically meaningful pattern in how Malaysian English language educators integrate AI across the instructional lifecycle: adoption is strongest in the Before phase, present but contingent in the During phase, and constrained by scepticism and infrastructure gaps in the After phase. Critically, these findings expose a structural support-practice paradox in which institutional encouragement consistently outpaces operational provision, leaving educators to navigate AI integration largely through individual initiative rather than systemic enablement.

The implications of this disconnect demand coordinated action across multiple levels of the educational system. At the policy level, vague institutional endorsement must give way to explicit, phase-specific AI integration frameworks that are grounded in CEFR goals and ethical standards (Chan, 2023). At the leadership level, declarative support must be translated into tangible operational commitments, including sustained investment in technological infrastructure, institutional funding for premium AI platforms, and formal recognition of innovative teaching practices (Alqahtani & Wafula, 2025; Zeng et al., 2025). At the

professional development level, the finding that half of all participating educators had received no AI-specific training highlights the urgency of replacing isolated, one-off workshops with sustained, subject-specific, and ethically grounded learning communities (Roshan et al., 2024; Kohnke et al., 2023).

This study contributes to the field by offering an empirically grounded, phase-differentiated account of AI integration in Malaysian ELT, a context that has been underrepresented in international AI-in-education research. The identification of the support-practice paradox and the post-lesson void as specific, named phenomena offers conceptual tools for future research and policy design. Several limitations warrant acknowledgment. The reliance on self-reported data, the small qualitative sample (n = 4), and the predominantly female, Malaysian participant pool constrain transferability. Future research should prioritise longitudinal designs, classroom observations, and broader sampling across regional and gender lines. As generative AI tools continue to evolve at pace (Zhu et al., 2025), the field urgently requires ethical implementation frameworks that centre educator agency as indispensable to meaningful, humane language teaching.

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