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Original Research

Exploring Educators' Perspectives and Practices of Utilizing ChatGPT in EFL Materials Development

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Abstract

This study explores EFL educators' perspectives and practices of using ChatGPT for materials development in higher education. The research was conducted with 60 faculty members from Sultan Qaboos University using a mixed-methods design. Guided by Rogers' Diffusion of Innovations theory, the study examined relative advantage, compatibility, complexity, trialability, and observability of ChatGPT's affordances and inadequacies in materials development. Data were collected using a structured questionnaire with Likert-scale items and open-ended questions, designed to capture both quantitative trends and qualitative insights. Descriptive statistics were used to analyze survey responses, while thematic coding was applied to open-text data, ensuring alignment with the study's theoretical framework. Results show that teachers view ChatGPT as efficient, flexible, and supportive of curriculum alignment. They valued its ability to save time and generate adaptable content. However, concerns about accuracy, cultural relevance, and policy clarity were common. Faculty reported revising outputs to fit learners' needs and stressed the importance of institutional support and training. The findings highlight opportunities for responsible integration of ChatGPT in ELT, while also noting risks of over-reliance. This study contributes to understanding how AI can reshape materials development and offers guidance for teacher training and policymaking in emerging educational contexts.

Keywords: ChatGPT; Curriculum; Higher Education; Materials Development.

1. Introduction

Education has undergone a relatively significant transformation because of the digital age. The educational field now uses multiple technological tools, which have transformed teaching methods (Zhang et al., 2024). Accordingly, educational institutions are now increasingly relying on technology through interactive whiteboards, online learning management systems, mobile apps, and virtual reality to improve teaching quality (Grönlund & Islam, 2010). The most recent technological innovation in education is the introduction of artificial intelligence (AI). OpenAI's ChatGPT and similar tools provide educational institutions with new ways to automate processes (Zaiarna et al., 2024).

The adoption of AI in English Language Teaching (ELT) has been driven by the objective of developing communicative competence through interactive and learner-focused methodologies (Chen, 2024). As stated, "if we take a deeper look at what GenAI can currently offer teachers and learners, there is almost no end to the list" (Cogo et al., 2024: 374). They believe that GenAI tools can foster English as a second language (ESL) learners' autonomy. It also helps teachers develop materials and provide feedback. However, AI tools can also pose challenges for both students and teachers. Stockwell (2024) points to the dangers of hallucination and false information as the main challenges for teachers. Moreover, since students might not have a clear picture of what the rules regarding AI use are, they may end up breaching academic integrity lines.

The implementation of AI tools in ELT practices has led to both theoretical and practical changes in educational theories. Connectivism has theoretically highlighted how learners should take control of their learning process while developing digital skills (Kim & Sim, 2024). It also focuses on how students can create knowledge with the help of technology (Kim & Sim, 2024). From a practical perspective, educators are now encountering increasing demands to adopt new teaching methods to meet diverse student needs. As a result, the workload related to content creation is a growing concern (Grubaugh et al., 2023). In line with these developments, the English as a foreign language (EFL) educational landscape has been revolutionized with ChatGPT and similar AI tools (Mabuan, 2024). These tools enable the rapid generation of texts and quizzes. By doing so, they can significantly reduce teachers' preparation time and enhance curriculum quality (Varghese et al., 2025). ChatGPT can specifically be used to support content creation. It allows teachers to adjust the complexity of instructional materials without having to start from scratch (Allaithy & Zaki, 2025). However, the effectiveness of these applications depends heavily on some external factors, like teachers' digital literacy and the ability to adapt AI outputs to teaching goals. (Li et al., 2025).

While AI use in education is growing, gaps persist in the current literature on its use in materials development and content creation. Most studies on AI in education look at its benefits, drawbacks, and uses both inside and outside the classroom (Alammari, 2024; Chen & Liu, 2024; Kasneci et al., 2023; Zapata-Rivera et al., 2024). They tend to focus on how it affects students' learning outcomes. Only a few, however, have examined how teachers view and integrate AI when developing teaching materials (Wangdi & Rigdel, 2025; Zapata-Rivera et al., 2024). Particularly, empirical data on university faculty perspectives on using ChatGPT in ELT in emerging economies like the Gulf region, which are investing in ELT abundantly, are limited (Alammari, 2024). Filling these gaps is important for developing strong models of AI in EFL higher education. In particular, lecturers' perceptions can show the challenges they encounter and the support they require. To this end, this study tries to bridge this gap by inspecting teachers' perceptions and practices of using ChatGPT for materials development. Against this backdrop, this study will address the following questions.

1. What are EFL educators' perceived strengths and weaknesses of using ChatGPT for materials development?
2. How do higher education faculty members integrate and adapt ChatGPT in materials development?
3. What are the implications for the future of instructional materials development in ELT?

2. Literature Review

2.1. Advent of Technology in Materials Development

Following the communicative language teaching approaches' guidelines for teacher involvement in adapting teaching and learning materials, teachers were thrilled to take on this role; however, they soon realized that materials development was their most challenging responsibility, mainly due to time limitations and text difficulty (Razmjoo & Mavaddat, 2016). Materials developers should often be highly cautious of elements like sentence structure, readability, and cultural sensitivity (Xin, 2024), bearing the learning needs and institutional expectations in mind. Technology, as a new solution to address these concerns, began to emerge in the late 1990s and has continued to be used to this today. Approaches like Computer-Assisted Language Learning (CALL) played a foundational role in materials development. These approaches helped with both developing and delivering the materials, aimed to support grammar practice, vocabulary drills, and reading comprehension through interactive and computer-based programs (Warschauer & Healey, 1998). This marked an important shift from paper-based learning materials. It introduced elements of automation and learner control to ELT (Chapelle, 2010).

Early CALL materials were often criticized for being mechanical and lacking context, which focused heavily on accuracy rather than fluency. Learners often engaged in isolated language tasks that had little resemblance to real-world usage (Heift & Schulze, 2015). CALL materials were not adaptable and could not support collaboration or meaningful interaction. Studies also noted that many of these programs just turned traditional worksheets into digital form (White & Reinders, 2010). They did not revise the teaching approach behind them (Heift & Schulze, 2015). Furthermore, in contexts that lacked enough resources, access, and teacher training remained uneven (Chapelle, 2010). Still, CALL paved the way for future progress by shaping the evolution of digital materials today (Chapelle, 2010).

2.2. The Emergence of AI in Materials Development

The rise of large language models has caused a boom in the use of AI in developing ELT materials (Chen & Liu, 2024). Early applications focused on generating texts and quizzes for different proficiency levels and giving automated feedback (Govindarajan & Christuraj, 2023), promising faster and more personalized content creation. AI has been used to draft lesson plans and suggest classroom activities (Omidvar & Meihami, 2025) that reduce teachers' workload and open new ways to create materials (Allaithy & Zaki, 2025).

Several studies warn that AI-generated content can sometimes lack pedagogical depth, overlook cultural relevance, or not match the intended learning goals (Costa, 2025). AI models can produce content that is grammatically correct but teaches poorly or gets the facts wrong. This can confuse learners or cause misconceptions (Zapata-Rivera et al., 2024). Another challenge is that most AI tools still overlook important context-specific factors. These include the learner's background, curriculum goals, and classroom dynamics (Uzun & Kahraman, 2024). Moreover, many teachers have not been trained to use AI effectively (Omidvar & Meihami, 2025). Concerns about ethics, content reliability, and over-reliance on automation are also still major issues (Wangdi & Rigdel, 2025). Despite these challenges, the first wave of AI in materials development has opened exciting new possibilities. It is helping educators rethink how language content is created based on the needs of individual learners (Omidvar & Meihami, 2025).

2.3. ChatGPT in ELT Materials Development

The launch of ChatGPT marked a new chapter in language materials development. It gave teachers and content creators powerful tools for instant content creation and activity design (Baidoo-Anu & Ansah, 2023). ChatGPT can quickly generate explanations and tasks (Omidvar & Meihami, 2025). Teachers have used it to brainstorm lesson ideas and create materials for different proficiency levels (Octavio et al., 2024). Its language generation abilities help with creating a wide range of content effortlessly. In particular, its easy access and conversational style appeal to educators with limited technical experience (Wangdi & Rigdel, 2025). This allows them to focus on making the content appropriate for their own specific curriculum and context (Choi, 2025).

This shift is illustrated in recent studies examining how teachers engage with GenAI tools. Xin (2024) offers a detailed examination of EFL teachers using ChatPDF for reading materials development. Teachers employed a clear "D-R-E-A-M" model. This included determining needs, rendering prompts, evaluating AI suggestions, adjusting inputs, and making final decisions. The study emphasizes how teachers rely on their pedagogical knowledge to shape the materials. AI tools effectively support text adjustment and task design. However, educators often accept the outputs only partially. They believed AI-generated texts had to be revised to be appropriate for the local context and learner needs.

In another study, Zaiarna et al. (2024) observed that AI-generated test items were grammatically accurate. However, they often lacked depth and contextual accuracy. Therefore, teachers should be more careful when using AI to produce materials. They must review and edit outputs, include local references, and align tasks with learning outcomes. As Kalra (2024) warns, educators must act as content validators. They need to ensure that AI serves as a tool, but not a replacement, for materials development (Kalra, 2024). The results of these studies show that the quality of AI-generated materials is inconsistent. Content is sometimes factually incorrect or culturally inappropriate (Zapata-Rivera et al., 2024). This highlights the need for responsible use of AI in EFL materials development.

One major concern is ChatGPT's tendency to produce inaccurate content. This is especially true for grammar explanations or cultural references (Chen & Liu, 2024). In these cases, mistakes can easily mislead learners (Zapata-Rivera et al., 2024). Without careful human editing, it may fail to match curricular goals or learners' needs. Another issue is data bias and the lack of localization. This can lead to materials that are culturally irrelevant or lack inclusivity. (Kasneci et al., 2023). ChatGPT presents new possibilities for language teaching. However, to use it well, teachers must know its pros and cons.

AI tools like ChatGPT are transforming EFL material design. Yet, there still exist concerns about accuracy, culture, and ethics. Teachers play a key role in adapting AI outputs for lessons and students. Having reviewed the literature, we realized that most research focuses on AI in education in general, while little has explored teachers' views and real uses of it for materials development, especially in the EFL higher education context. This study fills this gap by exploring how university faculty in Oman see and use ChatGPT to create EFL materials.

2.4. Empirical Studies on Educators' Use of ChatGPT in EFL Materials Development

While much of the literature has explored AI's theoretical potential in education, a growing number of empirical studies have begun to examine how EFL educators are using tools like ChatGPT in classroom practice and materials development. For instance, Mabuan (2024) conducted a qualitative study exploring how Filipino EFL instructors integrate ChatGPT in their lesson planning, finding that most participants used it for generating vocabulary tasks and reading texts but expressed concerns over factual reliability. Similarly, Xin (2024) documented how teachers applied a "D-R-E-A-M" approach (Determine–Render–Evaluate–Adjust–Make) when using ChatPDF for reading material creation, emphasizing the role of pedagogical judgment in refining AI outputs.

Other studies, such as Zaiarna et al. (2024) and Kalra (2024), have highlighted that while teachers appreciate AI's speed and convenience, they remain cautious about cultural misalignment and the risk of over-reliance. Wangdi and Rigdel (2025) investigated ChatGPT use among Bhutanese EFL teachers and found that although most respondents were enthusiastic, only a few had received formal training in prompt design, limiting their ability to fully utilize the tool. Meanwhile, Govindarajan and Christuraj (2023) examined educators' adoption of ChatGPT in Oman, reporting similar findings regarding both enthusiasm and concerns over quality and ethics. Despite these valuable contributions, few empirical studies have focused specifically on higher education faculty in emerging economies where ELT is expanding rapidly and digital transformation is underway. Moreover, much of the existing research tends to generalize AI use in education, without zooming in on the nuances of materials development as a distinct pedagogical task.

2.5. Theoretical Framework

This study uses Rogers' (2003) Diffusion of Innovations (DoI) theory, which centers on how new technologies and ideas spread through social systems. It focuses on five key factors: relative advantage (how useful the technology is), compatibility (how well it fits with current practices), complexity (how easy it is to use), trialability (whether it can be tested), and observability (if results are visible) that shape how quickly people adopt innovations (Rogers, 2003). In education, it helps explain why teachers incorporate certain tools like ChatGPT into their practices, among which materials development stands at the top of the list (Mestari & Djafri, 2025). Moreover, Mestari and Djafri (2025) add that innovation in ELT materials depends on three things: trialability, compatibility, and teachers' readiness to try new tools.

DoI guided both the design of the research instruments and the analysis. The study focused on five key factors from the framework: relative advantage, compatibility, complexity, trialability, and observability. DoI has been used widely in educational technology research (Kamau, 2014; Keengwe & Kidd, 2010) as well as EFL and ELT studies (Jwaifell & Gasaymeh, 2013; Lee, 2014), justifying its suitability for studying how AI is adopted in EFL settings.

3. Methodology

3.1. Research Design

This study adopted a convergent parallel mixed-methods design, which allowed for the simultaneous collection and analysis of both quantitative and qualitative data to gain a more comprehensive understanding of EFL educators' perceptions regarding the use of ChatGPT in ELT materials development (Creswell & Plano Clark, 2011). In this design, both data strands were treated with equal priority, and findings were integrated during the interpretation phase to enrich the overall analysis. The rationale for choosing this approach was to capture not only broad trends through survey responses but also nuanced perspectives through open-ended reflections. Triangulating these complementary data sources enhanced the internal validity of the findings and allowed for a more holistic interpretation of participants' experiences. This design was particularly suited to the exploratory nature of the study, as it enabled the researcher to validate and expand upon emerging patterns from multiple angles.

3.2. Instrumentation

3.2.1. Questionnaire

The quantitative tool was a researcher-designed questionnaire consisting of 32 items across three main sections. The first section gathered demographic information. The second included Likert-scale items on ChatGPT use in materials development. Each DoI construct was measured with 4 to 6 items. A 5-point Likert scale was used, from "Strongly

Disagree” (1) to “Strongly Agree” (5), to show how participants felt about each statement. Eight EFL instructors piloted the questionnaire. Their feedback led to minor changes in wording and the order of items to improve it. The third section, Intentions and Recommendations, examined the prospects of using ChatGPT and explored the educational support educators need to use ChatGPT for materials development. By including these items, this study tries to evaluate adoption factors and anticipate future trends.

Content validity of the questionnaire was checked by two senior faculty members at SQU. They had expertise in language education and educational technology. They reviewed the items to ensure relevance and clarity. Reliability analysis showed acceptable internal consistency. Cronbach’s alpha for the whole questionnaire was 0.997. All subscales also showed sufficient reliability. To analyze the Likert-scale responses, descriptive statistics were used. The mean shows the average tendency, and the standard deviation (SD) shows the variability in responses. Items were grouped under the five main DoI constructs. This helped show patterns in how teachers viewed and used ChatGPT.

3.2.2. Open-ended Questions

Alongside the survey, three open-ended questions collected qualitative data. This helped align the results with the quantitative findings. These questions asked educators to reflect on their personal experiences with ChatGPT. The goal was to gather narrative insights about using AI in materials development. The questions focused on strengths, challenges, classroom use, and support needs in ChatGPT-based materials development. Participants wrote their open-ended responses directly in the survey. This allowed for flexible, low-pressure reflection. The questions were optional but encouraged to gain deeper insights. Two experts reviewed the items to check face validity. They suggested wording changes to make the questions clearer.

Qualitative responses were analyzed using a dual-phase coding approach (Richards, 2003). First, deductive codes were based on the five DoI attributes, like compatibility and complexity. This kept the analysis grounded in theory. In the second phase, inductive coding was used to capture new themes. These included ideas like cultural fit and institutional readiness. The coding was done by the authors, who have expertise in AI in education and qualitative research. Any differences in coding were discussed and resolved together. Inter-rater reliability was calculated using Krippendorff’s alpha. The result was $\alpha = 0.804$, which is above the accepted threshold of 0.667 (Krippendorff, 2004).

3.3. Participants and Settings

The participants included 60 EFL educators from SQU in Oman. Out of 90 teachers who received the questionnaire, 60 responded. SQU was selected because it supports Oman Vision 2040 and leads in educational reform. The university offers a valuable setting for exploring how technological innovation is unfolding in Omani higher education.

The 60 participants (24 males and 36 females), forty-nine aged 35–54, three 25–34, and eight over 55, had varying teaching experience: 3 had less than 2 years, 7 had 2–5 years, 12 had 6–10 years, and 38 had over a decade of experience. The participants included 42 with master’s degrees and 18 with doctorates in ELT and Applied Linguistics. All 60 participants had prior training in AI platforms, indicating their familiarity with the topic of the current study. They all reported using ChatGPT often for materials development.

3.4. Data Collection Procedures

Data were collected using an online questionnaire administered via Google Forms. Prior to participation, all respondents were provided with a detailed summary of the study’s aims and procedures, along with an informed consent form. Participation was entirely voluntary, with no incentives or compensation offered. To proceed, participants were required to indicate their informed consent by checking a mandatory consent box before accessing the questionnaire. This ensured ethical compliance and participant autonomy. The digital format allowed the survey to be easily accessed on various devices, offering participants the flexibility to complete it at their convenience and in their preferred environment. The questionnaire remained accessible for a period of two weeks, during which participants could respond at any time.

4. Results

The findings are grouped using the DoI framework: Relative Advantage, Compatibility, Complexity, Trialability, and Observability. The additional construct, Intentions and Recommendations, is also included. For each construct, the quantitative findings are presented first. These are followed by qualitative insights based on a thematic analysis of the open-ended survey responses. Joint display tables align quantitative and qualitative insights for each construct. Finally, emergent themes are presented that capture additional insights from participants' experiences with ChatGPT in EFL materials development.

4.1. Relative Advantage

The Relative Advantage construct items examined users' views on ChatGPT's efficiency, time use, quality, student-centeredness, and customization in EFL materials. Table 1 indicates that the highest mean score was that of time saving benefits ($M = 4.10$, $SD = 1.037$), while the lowest was for quality and reliability ($M = 3.63$, $SD = 1.314$). This shows the participants had strong agreement that ChatGPT can save time, but more moderate views on the quality of its output. Other items received positive scores, as shown in Table 1.

Table 1. *Relative Advantage Findings*

Item	Thematic Focus	Mean	SD	Representative Quotes
1	Efficiency	4.07	0.972	"The first thing that I really like about ChatGPT is that I can create materials with less effort." (Participant 4)
2	Time-saving benefits	4.10	1.037	"It can help save so much time. I can prepare a whole lesson in a few minutes." (Participant 34)
3	Quality and reliability	3.63	1.314	"I think the ideas are good, but I have to check everything because the quality is not always consistent." (Participant 12)
4	Student-centeredness	4.00	1.074	"The activities that I create with its help can put students at the center of learning." (Participant 24)
5	Customizability	4.05	1.048	"I can easily adjust the same text for learners with different levels." (Participant 7)

Qualitative responses supported the view that ChatGPT saves time. A participant mentioned that ChatGPT can "prepare a week's worth of materials in hours instead of days." They believed that ChatGPT could reduce their workload. Respondents also appreciated its ability to quickly generate reading passages and vocabulary lists. This further supported the speed and convenience highlighted in the quantitative results. However, qualitative accounts also shed light on the lower quality score. Some educators explained they could create materials quickly; however, the results often needed "heavy editing." Others mentioned that there were inaccuracies in the content. This reduced their trust in the tool. For example, one teacher shared, "The reading text had a historical date wrong, which I had to fix before using it in class." Another participant explained, "Sometimes the grammar explanations are completely wrong, so I have to double-check everything."

4.2. Compatibility

The Compatibility construct measured how well ChatGPT fits educators' practices, workflow, goals, and the Omani EFL context (Table 2). The highest mean was for curriculum fit ($M = 4.23$, $SD = 0.909$). Next was appropriateness for the local context ($M = 4.15$, $SD = 0.988$). The lowest one was alignment with materials development approaches ($M = 3.98$, $SD = 1.081$). Overall, the data show that teachers believe ChatGPT is largely in line with their practices.

Table 2. *Compatibility Findings*

Item	Thematic Focus	Mean	SD	Representative Quotes
6	Alignment with materials development approaches	3.98	1.081	"I don't have to be looking for new ways to create materials. It matches the way I already create lesson plans." (Participant 55)
7	Workflow fit	4.03	1.119	"Using it feels natural. I don't feel it adds any extra work." (Participant 2)

8	Students' learning needs	4.13	0.982	"From what I have observed, I can say most of the materials meet various students' needs." (Participant 29)
9	Alignment with curriculum objectives	4.23	0.909	"I can quickly adjust its output to match our syllabus requirements." (Participant 41)
10	Appropriateness for the local Omani EFL context	4.15	0.988	"Sometimes it's perfect for our context, but other times I have to replace inappropriate examples." (Participant 51)

Qualitative responses showed strong support for ChatGPT's adaptability to curriculum and students' needs. Several participants mentioned that they could "match activities to course themes." They could also adjust the text for different proficiency levels. At the same time, they expressed some cultural and contextual concerns. One participant noted, "It sometimes uses examples that don't make sense to our students' background." Educators accepted that the tool is flexible, but they also stressed the need for careful localization.

4.3. Complexity

The Complexity construct assessed how easily participants could use ChatGPT for EFL materials. The highest mean score was for AI capabilities ($M = 4.10$, $SD = 1.020$), and the lowest was for the support ($M = 3.57$, $SD = 1.430$) (See Table 3). Usability and learnability scored positively. This shows that the tool is user-friendly in general, although some respondents were less confident about using it without support.

Table 3. *Complexity Findings*

Item	Thematic Focus	Mean	SD	Representative Quotes
11	Usability	4.07	0.989	"Even with my limited tech background, I find it easy to use." (Participant 11)
12	Confidence in crafting prompts	3.68	1.372	"I'm still figuring out how to write prompts that get exactly what I want. It can become complicated." (Participant 37)
13	Learnability	4.05	1.096	"I learned the basics fast and started making lessons." (Participant 12)
14	Training support	3.57	1.43	"I would prefer some guidance in the form of workshops before using it all by myself." (Participant 15)
15	Capabilities	4.10	1.02	"ChatGPT is a real time-saver. Using it leaves me with more time to focus on my students." (Participant 5)

Participants supported the view that ChatGPT is easy to use. One teacher described it as "simple enough even for people with limited tech skills." This is in line with the quantitative scores for ease of use and learning. The need for training produced mixed results, which is consistent with the lowest quantitative score. There are some educators who feel they could use ChatGPT independently, whereas others need more guidance for prompt creation and quality control.

4.4. Trialability

The Trialability construct examined participants' use of ChatGPT for lessons, activities, and feedback. Sharing materials with colleagues had the highest mean score ($M = 4.12$, $SD = 1.106$), and using ChatGPT to explore new types of materials ($M = 3.98$, $SD = 1.127$) had the lowest (See Table 4). Other items also received positive scores, suggesting teachers had positive experiences trying the tool.

Table 4. *Trialability Findings*

Item	Thematic Focus	Mean	SD	Representative Quotes
16	Experimenting with ChatGPT	4.03	1.057	"I decided to try it for a few lessons just to see how it could change my routine and found it to be really useful." (Participant 3)
17	Exploring new lesson designs	3.98	1.127	"I experimented with it to create a role-play activity. My students liked it very much, and it was a hit." (Participant 44)
18	Sharing materials for feedback	4.12	1.106	"I sent my generated reading tasks to some colleagues, and they suggested great improvements. This can improve the quality of the materials I create." (Participant 59)

19	Institutional encouragement	4.05	1.141	“Our center is constantly encouraging us to try new AI tools like ChatGPT for material creation. To promote them further, we’ve also had so many helpful workshops.” (Participant 34)
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Several participants described how they used ChatGPT to try out new lesson formats. One teacher pointed out, “I experimented with it to create a new activity, and it was successful.” However, some educators said they lacked time or were unsure which prompts to use. This may explain why this item scored the lowest. Teachers also shared their outputs for peer feedback. One respondent put it: “I sent my generated reading tasks to a colleague, and she suggested great improvements.”

4.5. Observability

The Observability construct looked at how ChatGPT affected engagement, lesson organization, and feedback. Positive feedback had the highest mean ($M = 4.10$, $SD = 1.069$), while novelty in materials design had the lowest ($M = 3.97$, $SD = 1.089$). Student engagement had a mean score of 4.03 ($SD = 1.073$) (Table 5). This indicates a positive view of the tool’s observable impact.

Table 5. *Observability Findings*

Item	Description	Mean	SD	Representative Quotes
20	Improvements in student engagement	4.03	1.073	“ChatGPT really helps with student involvement. For example, the role-play scripts I used got even my shy students to speak up.” (Participant 1)
21	Novelty in lesson design	3.97	1.089	“It gave me new ways to present and structure the lesson content.” (Participant 41)
22	Positive feedback	4.10	1.069	“My colleagues gave me great feedback. They liked the variety in the reading activities I created with ChatGPT.” (Participant 48)

Several educators reported noticeable increases in student participation when using AI-generated content. One teacher noted, “The role-play scripts I used got even my shy students to speak up.” Positive colleague feedback was common, matching the top-rated item. One participant noted, “My peers liked the variety in the reading activities I created with ChatGPT.”

4.6. Intentions and Recommendations

The Intentions and Recommendations measured plans for ChatGPT use, its future, training interest, and institutional support. The highest rating was for willingness to develop guidelines ($M = 4.12$, $SD = 1.106$) (See Table 6). This was followed by institutional support ($M = 4.08$, $SD = 1.139$). The other two items scored 3.97 ($SD = 1.19$).

Table 6. *Intentions And Recommendations Findings*

Item	Description	Mean	SD	Representative Quotes
23	Continued use of ChatGPT	3.97	1.193	“I think I will probably keep using it, but I want to see improvements in accuracy first.” (Participant 11)
24	ChatGPT as a standard EFL tool	3.97	1.193	“It could become standard if policies and training are in place, because once teachers know how to use it properly, it can become part of their daily tools.” (Participant 8)
25	Institutional support for ChatGPT use	4.08	1.139	“If the institution supports it more, I’ll be more confident to use it widely. I think it would also motivate more teachers to try it.” (Participant 50)
26	Willingness for ChatGPT training	4.02	1.049	“I’m keen to sign up for a training workshop on using ChatGPT for lesson design. Those workshops are always really useful.” (Participant 53)
27	Willingness to help create ChatGPT frameworks	4.12	1.106	“I’d be happy to help with guidelines, so everyone uses it effectively. I believe sharing ideas would help us to use it better.” (Participant 31)

Many participants expressed a clear need for stronger institutional support when using ChatGPT. They also highlighted that AI literacy training would make them feel more confident. This echoed the high rating for institutional support. Many educators were eager to take part in shaping policies and frameworks, which matched the highest-rated item. One said, "I'd be happy to help draft guidelines, so everyone uses them effectively." However, lower scores for continued use and standardization suggest uncertainty about long-term adoption. This was often tied to concerns about accuracy, cultural fit, and unclear policies.

4.7. Emergent Themes

Qualitative analysis revealed themes beyond the Diffusion of Innovations (DoI) framework. These themes show extra factors in adopting and integrating ChatGPT for EFL materials.

4.7.1. Over-Reliance Risk

Some respondents feared ChatGPT could reduce teacher creativity or student engagement without careful planning. As stated by an instructor, "It's tempting to just copy-paste, which I think could make me lazy as a teacher." This highlights the need for training on balancing AI use with active teacher involvement.

4.7.2. Policy Clarity

Educators noted unclear AI policies for materials development. Without clear guidelines, they hesitated, especially over authorship and plagiarism. A teacher commented, "I'm not sure if I'm breaking any policy when I use it for lesson prep." This highlights the need for policies that define acceptable use and address intellectual property.

4.7.3. Advanced AI Capabilities

Some participants were curious about ChatGPT's advanced features, like multimodal tools and plugins. These are the features they had not yet tried. One teacher mentioned, "I've heard it can do more than text. I want to learn about those features." This shows interest in using AI beyond text to diversify teaching materials.

4.7.4. Reduced Cognitive Load

Several educators said ChatGPT was more than a tool for saving time. It improved their mood and helped with the mental load of material development. One participant noted, "It's such a relief not to have to start from nothing." Another added, "Sometimes I just need a push, and it gives me that starting point." Here, ChatGPT acts like mental scaffolding for materials development. It helps teachers save their creative energy and feel less stressed about preparing lessons by offering ideas on where to begin and how to approach the task of developing materials.

4.7.5. Peer-to-Peer AI Literacy Building

One surprise was the way teachers picked up AI skills by sharing tips with each other. As one teacher put it, "I learned more from my colleague's prompts than from any guide online." Instead of relying only on formal training, teachers built a culture of sharing. They swapped prompts and editing tips that actually worked. Teachers try sharing prompts they created for explanations and exercises to improve them with the help of their colleagues. They found that exchanges of ideas could directly improve the quality of their materials.

4.7.6. Trust Calibration Over Time

Participants said their relationship with the materials created with ChatGPT changed as they got more used to it. One educator explained, "At first, I didn't trust anything it gave me. Now, I know when I can doubt or trust it." This gradual adjustment of trust goes beyond the familiar concern over accuracy. It is about learning with the help of experience. Over time, teachers learn when to trust the materials and when to intervene. In other words, this practice effect helps them to realize when AI-generated texts or exercises are ready and when they need careful revision to fit learners' needs.

4.7.7. *Multilingual Potential*

A group of participants used ChatGPT in multiple languages to support EFL learning. One educator shared, “It helped me prepare some materials in Arabic to explain tricky grammar points.” This capability, rarely discussed in the literature, opens new opportunities for AI to connect L1 and L2. It can scaffold understanding and promote inclusivity, helping meet the needs of diverse learners.

5. Discussion

This study examined how EFL faculty at a higher education institution in Oman perceive and use ChatGPT for materials development and was guided by Rogers' Diffusion of Innovations theory. The findings reveal a nuanced picture where educators appreciate ChatGPT's efficiency, flexibility, and compatibility with their workflow. However, they also remain cautious about issues such as accuracy, cultural fit, and ethical use. This discussion examines how teachers adapt and integrate AI outputs, emphasizing both the enabling conditions for sustainable use and the associated concerns. It also explores broader implications for policy, teacher training, and the future of ELT materials development.

5.1. Strengths and Weaknesses of ChatGPT

The findings show a mixed view of how ChatGPT supports EFL materials development. Educators found that ChatGPT helped them save time. This finding aligns with earlier studies suggesting that AI can help ease teachers' workload (Omidvar & Meihami, 2025; Varghese et al., 2025). The second feature that they referred to was flexibility. Many found it easy to adjust materials for different proficiency levels or course objectives. This is in line with Xin's (2024) findings that teachers see ChatGPT as a flexible assistant rather than a mere template provider. Another strength is the accessibility and ease of use, even for teachers with limited technical skills. This finding reflects Rogers' Diffusion of Innovations theory, especially trialability and compatibility (Rogers, 2003). Teachers could add ChatGPT to their workflow without much change. At the same time, they noted that writing good prompts was a challenge. This highlights the need for digital literacy and training (Omidvar & Meihami, 2025).

However, teachers noted that ChatGPT created the materials quickly, but they often required revision. Teachers had to revise the materials because of factual inaccuracies, misleading explanations, or culturally irrelevant examples. This can also be seen in earlier research about the risks of hallucinations in AI-generated materials (Stockwell, 2024; Zapata-Rivera et al., 2024). Such limitations suggest that ChatGPT is not yet capable of independent material creation; instead, it functions best as a draft generator that requires strong teacher oversight. Cultural and contextual fit was more complicated. Teachers were concerned about examples that lacked local relevance. This points to a concern discussed in the literature (Costa, 2025; Kasneci et al., 2023). To help with this problem, we will need both improved AI design and teacher intervention.

Overall, the findings suggest ChatGPT helps most by saving time and effort. It allows teachers to spend more energy on pedagogy instead of formatting. Yet, there are some limits, such as accuracy and cultural fit. Simply put, ChatGPT cannot yet substitute teachers as material developers, and its usefulness depends on teachers' skills and clear policy.

5.2. Integration and Adaptation of ChatGPT in Materials Development

The findings show that higher education faculty adapt ChatGPT and selectively integrate its output into their teaching materials. Educators described ChatGPT as blending into their workflow and supporting materials development. This reflects Xin's (2024) “D-R-E-A-M” model, where teachers determine needs, render prompts, evaluate suggestions, adjust inputs, and make final decisions. Similarly, participants in this study emphasized that they often partially accepted outputs, reshaping them to fit local contexts and curricular objectives. This suggests that ChatGPT is added to current ELT materials development in ways that preserve teacher choice and control.

A key integration strategy involves adjusting materials to be appropriate for different proficiency levels and course requirements. Teachers reported that ChatGPT outputs could match course themes and be adapted for learners' abilities. This adaptability supports Rogers' (2003) constructs of compatibility and trialability. Teachers were able to try out the tool in real classrooms without having to change their teaching approaches, confirming Choi (2025) and Octavio et al.'s (2024) observations. A big part of adapting was making sure it was appropriate for the culture. Faculty contended

that they often replace examples that were irrelevant or inappropriate for the Omani context. This process mirrors findings from Zaiarna et al. (2024), who observed that educators frequently edit AI outputs to improve contextual accuracy. Such revisions highlight that meaningful integration requires balancing efficiency with sensitivity to cultural and institutional realities. AI content can easily conflict with students' backgrounds or the institution's policies without this step. An important part of the adaptation is collaboration. Participants reported sharing their materials with colleagues for feedback and improvement. This peer-to-peer exchange reflects a popular form of AI literacy building. Using this approach, educators co-construct knowledge on effective prompt design and editing. Similar findings have been reported in Kalra (2024), suggesting that integration is not just technical but also social.

Nevertheless, some faculty struggled with prompt design and said they needed training. This supports Omidvar and Meihami's (2025) point that using AI well in education takes more than just access to the tools. It also requires focused professional development. Moreover, because policies varied, many teachers felt a level of uncertainty. They often did not know how far they could depend on AI when preparing lessons. Overall, the findings show that integration happens by adapting. Teachers adjust material created with ChatGPT to fit students and the curriculum. There is no question that ChatGPT can make work more efficient and creative, but success depends on teachers having guidance and support from their institutions.

6. Conclusion

The study explored faculty views on ChatGPT, its strengths, limits, and what it means for ELT. The findings show that faculty value ChatGPT for efficiency and flexibility but worry about accuracy and over-reliance. Teachers do not use the tool blindly. They adapt and refine its outputs, often with colleagues, to fit the context. The study shows that teachers adopt AI when it is easy to try and fits their work. It also shows that teacher choice and collaboration shape how AI is used. The results also show the need for training in how to write good prompts. They point to clear policies and frameworks that guide ethical use and balance speed with careful thinking. These insights suggest that technology alone will not shape the future of ELT materials. It will depend on how teachers and institutions decide to use it. With the right training and support, ChatGPT can make materials more dynamic, inclusive, and teacher-driven.

Building on these findings, the results suggest that faculty see ChatGPT as useful now and important for shaping future ELT materials. ChatGPT could become a standard tool in language education if accuracy, culture, and support are ensured. Many participants wanted training and clear policies, and some were ready to help write the guidelines. This shows that AI use cannot stay unplanned. It needs training and strong support from institutions (Woo et al., 2024). At the pedagogical level, the results show a shift toward more teamwork in developing materials. Teachers viewed ChatGPT as easing the workload so they could spend more energy on instruction. This vision reflects connectivism, where technology is used to build knowledge, not just pass it on (Kim & Sim, 2024). The practical implication is that ELT materials may increasingly be created by teachers and AI working together.

The study also highlights future challenges. Participants worried that relying on ChatGPT could limit their creativity and student engagement. This supports Stockwell's (2024) warning that generative AI should help teachers, not replace their ideas. For the future of ELT, teacher training must help teachers review and adjust AI-generated content. Institutions also need clearer policy guidance. Concerns about ethics show why institutional guidelines are needed. Without these frameworks, AI use may become inconsistent and misused. According to Pesce and Blanco (2024), AI policies should be built on ethics to support both teachers and students. In Oman and similar contexts, digital transformation is a key part of education strategies. In these settings, institutional readiness will strongly shape how AI can help with materials development (Govindarajan & Christuraj, 2023). In other words, institutional readiness means having the infrastructure, policies, and training available, without which the use of AI in materials development can end up patchy and depend too much on individual teachers.

The findings also point to future opportunities. Faculty showed interest in multimodal AI, peer-to-peer literacy sharing, and multilingual uses. This suggests future ELT materials may become more inclusive, flexible, and responsive to learners. Instead of fixed textbooks, materials could be flexible and adaptive. They may be co-created by teachers, learners, and AI tools. Overall, the impact is bigger than just efficiency gains. The future of ELT materials depends on balancing innovation with responsibility (Rahayu et al., 2025). AI must be used within teacher expertise, supported by

institutions, and guided by ethics. If used well, ChatGPT could make materials more personal, inclusive, and collaborative.

This study is limited because it was done at one site in Oman and relied on self-reports. While the findings offer valuable insights into how faculty use and perceive ChatGPT in EFL materials development, they may not reflect the experiences of educators in different institutions or cultural contexts. All participants had some familiarity with AI tools, which may not be the case in other teaching environments. Broader and more diverse studies across regions and teaching groups are required to see if these patterns recur. Including perspectives from educators in different countries, institutions with varying levels of technological infrastructure, and teachers with different degrees of digital literacy would provide a more complete picture. Future research should study how policy, readiness, and professional development shape sustainable AI use in ELT materials development. It should also explore how students respond to AI-generated materials and whether long-term use of tools like ChatGPT leads to changes in teaching practices.

Author Contributions

This project was a fully collaborative effort. Namdar Namdari, Mahsan Ghayedi Karimi, and Saleh Arizavi worked together on developing the ideas, carrying out the analysis, and writing and revising the manuscript. All authors reviewed and approved the final version of the paper.

Conflict of Interest

The authors confirm that they have no conflicts of interest.

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Appendix: Questionnaire

Section A: Demographic Information

Please indicate your responses by ticking (✓) the appropriate box.

1. Gender:

Male Female

2. Age:

25–34 35–44 45–54 55+

3. Years of Teaching Experience:

Less than 2 2–5 6–10 More than 10

4. Academic Qualification:

Master's (MA) Doctorate (PhD) Other: _____

5. Have you received training in digital tools or AI?

Yes No

6. How often do you use ChatGPT for instructional materials development?

Never Rarely Occasionally Often Very Often

Section B1: Perceptions and Practices

Please indicate your level of agreement with each statement using the 5-point Likert scale below.

(1) Strongly Disagree (2) Disagree (3) Neutral (4) Agree (5) Strongly Agree

Relative Advantage

1. ChatGPT helps me develop instructional materials more efficiently.
2. Using ChatGPT reduces the time I spend on preparing EFL teaching materials.
3. The quality of ChatGPT-generated learning materials meets my expectations.
4. ChatGPT allows me to create student-centered content for materials development.
5. ChatGPT supports customization of EFL materials to meet varying student levels.

Compatibility

6. ChatGPT aligns with how I typically approach materials development.
7. Using ChatGPT fits well into my workflow for preparing instructional materials.
8. ChatGPT-generated materials suit my students' learning needs.
9. ChatGPT outputs can be easily adapted to match my curriculum objectives.
10. The content generated by ChatGPT is appropriate for the Omani EFL context.

Complexity

11. I find ChatGPT easy to use for creating EFL materials.
12. I feel confident in using prompts to generate appropriate teaching materials.
13. It was easy for me to learn how to use ChatGPT for content creation.
14. I feel confident using ChatGPT for material design without needing additional support or training.
15. The wide range of AI capabilities supports my focus on materials development using ChatGPT.

Trialability

16. I've had opportunities to experiment with ChatGPT for lesson material preparation.
17. I have used ChatGPT to explore new types of activities and learning materials.
18. I've shared ChatGPT-generated materials with colleagues for feedback or improvement.
19. My institution supports trying out AI tools specifically for instructional content creation.

Observability

20. I have seen improvements in student engagement when using ChatGPT-generated materials.
21. ChatGPT has helped me visualize and organize lesson materials in new ways.
22. I've received positive responses from peers or students about AI-assisted materials.

Section B2: Intentions and Recommendations

23. I plan to continue using ChatGPT for instructional materials development.
 24. I believe ChatGPT will become a standard tool for developing materials in EFL education.
 25. Institutional support for material-focused AI use would increase my confidence and adoption.
-

36. I would attend a teacher training course on using ChatGPT for lesson material design.
27. I am willing to contribute to frameworks and guidelines for using ChatGPT in EFL material creation.

Section C: Open-Ended Questions

Please respond briefly and honestly. Your reflections are valuable.

28. What do you see as the biggest strength and biggest limitation of using ChatGPT in EFL materials development?
29. Can you describe a specific example where you used ChatGPT to develop classroom materials? What worked or didn't work?
30. What institutional support or training programs would improve how you use ChatGPT in creating lesson content?



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