

EFL PRE-SERVICE TEACHERS' FEEDBACK ON THE USE OF A CUSTOM GPT IN LESSON PLANNING

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<https://doi.org/10.63506/jilc.1002.487>

(Received: 16/05/2026; Revised: 20/07/2026; Accepted: 10/08/2026)

Abstract: Amid the rapid growth of AI integration in education, developing tailored AI systems has opened new opportunities to support teaching and learning. In that context, custom GPTs allow users to create their own chatbots to facilitate teaching activities. This study explores third-year EFL pre-service teachers' feedback on LessonMate, a custom GPT designed to support lesson planning. Using a mixed-methods approach, data were collected from 100 students via a survey and semi-structured interviews with ten participants at a public university in central Vietnam. Findings showed that participants actively and flexibly used LessonMate for generating ideas, creating questions and quizzes, and designing teaching activities. The tool received high ratings for usefulness, ease of use, and performance, notably in improving the perceived effectiveness of lesson planning and saving time. The study highlights the importance of developing pre-service teachers' AI literacy and critical engagement to effectively use customized AI tools in lesson planning.

Keywords: Custom GPTs; LessonMate; lesson planning; pre-service teachers

PHẢN HỒI CỦA SINH VIÊN SƯ PHẠM TIẾNG ANH VỀ VIỆC SỬ DỤNG CHATBOT GPT TÙY CHỈNH TRONG QUÁ TRÌNH SOẠN GIÁO ÁN

Tóm tắt: Trong bối cảnh AI ngày càng được tích hợp rộng rãi vào giáo dục, việc phát triển các hệ thống AI tùy chỉnh đã mở ra những cơ hội mới trong hỗ trợ dạy và học. Trong bối cảnh đó, GPT tùy chỉnh cho phép người dùng tự tạo chatbot để hỗ trợ hoạt động giảng dạy. Nghiên cứu này tìm hiểu phản hồi của sinh viên sư phạm tiếng Anh năm thứ ba về LessonMate, một GPT tùy chỉnh được thiết kế để hỗ trợ soạn kế hoạch bài dạy. Nghiên cứu sử dụng phương pháp hỗn hợp, thu thập dữ liệu thông qua khảo sát với 100 sinh viên và phỏng vấn bán cấu trúc với 10 sinh viên tại một trường đại học công lập ở miền Trung Việt Nam. Kết quả cho thấy sinh viên đã sử dụng LessonMate một cách chủ động và linh hoạt trong việc tạo ý tưởng, xây dựng câu hỏi, bài kiểm tra và thiết kế hoạt động dạy học. Công cụ được đánh giá cao về tính hữu ích, tính dễ sử dụng và hiệu quả hoạt động, đặc biệt trong việc hỗ trợ soạn kế hoạch bài dạy và tiết kiệm thời gian. Nghiên cứu nhấn mạnh tầm quan trọng của việc phát triển năng lực sử dụng AI và khả năng sử dụng AI một cách phản biện của sinh viên sư phạm nhằm khai thác hiệu quả các công cụ AI tùy chỉnh trong quá trình soạn kế hoạch bài dạy.

Từ khóa: GPT tùy chỉnh; LessonMate; soạn kế hoạch bài dạy; sinh viên sư phạm

1. Introduction

Artificial Intelligence (AI) and more recently, Generative Artificial Intelligence (GenAI) have become increasingly familiar concepts in many fields, particularly in education. The rapid development of these technologies has contributed to the transformation of teaching and learning practices by providing personalized and differentiated learning support for learners of diverse proficiency levels regardless of learning spaces and times (Grassini, 2023). However, AI has also raised concerns regarding ethics, responsibility, and fairness in education due to its capacity to rapidly generate content (Sullivan et al., 2023). Therefore, it is believed that effective AI integration in education requires collaboration among teachers, students, and AI systems, with human agency at the center. This highlights the need for teachers to continuously develop the skills necessary for the appropriate and effective use of AI in teaching and learning.

In Vietnam, the Ministry of Education and Training has promoted the development of AI literacy among teachers and students through the Pilot Content Framework for introducing AI into the general education curriculum (Decision No. 3439/QĐ-BGDĐT) and the implementation guidelines emphasizing creative thinking, digital skills, and ethical AI use for students (Official Dispatch No. 8334/BGDĐT-GDPT). These recent policy developments indicate increasing attention to AI integration in education. Through an analysis of 44 studies published in reputable journals, Celik et al. (2022) demonstrated that GenAI supports teachers in content selection, lesson design, teaching enhancement, and assessment practices.

Among various GenAI tools, ChatGPT has emerged as a prominent platform due to its accessibility and numerous advantages. Studies by Karpouzis et al. (2024), Lee and Zhai (2024), and Binh (2025) have shown that ChatGPT serves as an effective instructional support assistant that helps save time and optimize teaching strategies. Nevertheless, the tool still presents several limitations, including issues related to output accuracy (Gurl et al., 2025) as well as limited depth and personalization (Korucu-Kış & Bakla, 2026). Since its release, ChatGPT has continuously evolved with several new features, particularly the custom GPT function, which enables users to design chatbots tailored to specific needs and contexts (OpenAI, 2023).

For pre-service teachers (PSTs), lesson planning is essential yet challenging due to limited professional experience, workload pressure, and limited access to regular guidance. AI tools, particularly custom GPTs, may help address these challenges; however, research on the use of custom GPTs to support PSTs' lesson planning remains limited. Therefore, this study investigated third-year EFL PSTs' use and evaluation of LessonMate, a custom GPT designed to support lesson planning. The study contributes to the literature on AI applications in English language teaching and provides insights into the potential use of customized AI tools in pre-service teacher education.

2. Literature review

2.1 Lesson planning

Lesson planning is an essential professional skill for teachers, especially PSTs. Lesson plans help systematize and operationalize teaching methods and classroom instruction and guide the teaching and learning process through methods aligned with curriculum aims and requirements (Corpuz & Salandanan, 2013). According to Ndiokubwayo et al. (2022), a complete lesson plan includes lesson objectives, teaching resources and materials, learning

activities, assessment methods, and reflection. These components contribute to effective teaching practices and help address learners' needs.

Developing an effective lesson plan requires teachers' creativity, attention to contextual relevance, and pedagogical competence (Corpuz & Salandanan, 2013; Hammer & Ufer, 2023), enabling them to design flexible, meaningful learning experiences aligned with students' needs, interests, and social contexts. Given these demands, lesson planning can be challenging and time-consuming for teachers. Recent technological developments, particularly in GenAI, have created new opportunities to support teachers in this process.

2.2 Generative Artificial Intelligence (GenAI)

2.2.1 Roles and practices of GenAI in education

GenAI has been widely used in education. For learners, these tools support learning through rapid feedback, personalized content, and self-directed learning by generating self-assessment questions, examples, and explanations on demand (Jaboob et al., 2025). For teachers, GenAI can support the selection of teaching methods, lesson design, content adaptation and automation of repetitive tasks, thereby potentially reducing lesson preparation time and workload (Kohnke et al., 2023).

2.2.2 ChatGPT in language teaching

ChatGPT, launched by OpenAI in 2022, is a generative AI chatbot powered by large language models (LLMs). In education, it supports content creation, critical thinking, idea generation, essay scoring, and learning assessment (Cooper, 2023; Kasneci et al., 2023). Its simple and user-friendly interface also enables it to function as a virtual assistant for answering questions, personalizing learning, and supporting out-of-class learning (Ruiz-Rojas et al., 2023).

For teachers, ChatGPT can support lesson planning, material development, learning activity design (Arefian et al., 2024), and differentiated instruction (Bonner et al., 2023). More specifically, Karpouzis et al. (2024) reported that ChatGPT could generate lesson plans based on users' requirements, potentially reducing planning time and supporting adaptation to learners' needs. Lee and Zhai (2024) also found that ChatGPT-assisted lesson plans were of relatively high quality, particularly in terms of teaching methods and technology integration.

However, the use of ChatGPT also presents several limitations. Overreliance on AI may limit PSTs' independent engagement in lesson planning (Lee & Zhai, 2024). In addition, responses by ChatGPT may sometimes be inaccurate or lack sufficient depth, contextual relevance (Al-Zahrani, 2024; Korucu-Kış & Bakla, 2026), as well as suitability for learners' cultural contexts or proficiency levels. Gurl et al. (2025) also reported that ChatGPT occasionally generated lesson plans that were more teacher-centered than learner-centered. Therefore, effective use of ChatGPT for lesson planning requires users to critically evaluate and adapt AI-generated content based on pedagogical and contextual considerations.

2.2.3 Customized AI Chatbots

OpenAI introduced a function for creating custom GPTs for specific tasks. Users can provide instructions, prompts, and materials as a knowledge base and customized the chatbot's responses to

specific needs. Custom GPTs can therefore support various educational purposes, including virtual learning, skill practice, automated grading, and lesson planning.

Custom GPTs may offer several advantages of ChatGPT while providing greater personalization, enhanced learning interaction, and reduced teacher workload (Ruiz-Rojas et al., 2023). However, custom GPTs also have several limitations, including information overload, user overreliance, and insufficient depth in generated responses. Furthermore, the quality and relevance of responses may depend on the quality of the uploaded data and the way users design prompts (Kang & Lee, 2026).

In this study, LessonMate, a custom GPT developed on the ChatGPT platform, was designed to support PSTs in lesson planning.

2.3 Theoretical framework

This study adopts the Technology Acceptance Model (TAM) as the theoretical foundation for evaluating pre-service teachers' perceptions of LessonMate as an AI-assisted lesson planning tool. Proposed by Davis et al. (1989), TAM explains technology acceptance through two core constructs: Perceived Usefulness (PU) and Perceived Ease of Use (PEOU). PU refers to the extent to which users believe that using a technological tool can enhance the effectiveness of their work, whereas PEOU refers to the extent to which they perceive the tool as convenient, easy to operate with little effort. In this study, PU focuses on the perceived usefulness of LessonMate for the lesson planning while PEOU concerns the convenience, ease of use, and effort required to operate the tool. In addition to these TAM constructs, the study examines participants' perceived performance of LessonMate as an additional evaluative dimension, focusing on its perceived effectiveness, time-saving benefits, workload reduction, and effectiveness as a teaching assistant.

2.4 Previous studies

A growing number of studies have focused on ChatGPT due to its prominence. Wen and Wen (2024) found that 16 preservice teachers actively adapted and refined ChatGPT-generated content when constructing unit plans, highlighting the continued importance of human judgment, creativity, and pedagogical expertise in lesson planning. In Vietnam, Binh (2025) surveyed 300 secondary school language teachers and found that ChatGPT was frequently used for lesson planning, material development, and assessment design, indicating its growing role in teachers' professional practices.

Building on the growing use of ChatGPT in education, recent studies have begun to explore the potential of customized GPTs for more specialized and context-sensitive educational purposes. For instance, Collins et al. (2024) developed AnatomyGPT to support anatomy students through interactive quizzes, explanations, and specialized content tailored to the discipline. The study showed that the tool operated through an iterative development process based on learner feedback and collaboration between educators and GenAI developers.

2.5 Research gaps and research questions

Although ChatGPT has been widely studied in education, research on custom GPTs remains relatively limited, particularly regarding their use to support PSTs' lesson planning in the Vietnamese EFL context. Therefore, this study investigated third-year EFL PSTs' use and evaluation of LessonMate, a custom GPT designed to support lesson planning. Specifically, the

study seeks to answer the following research questions:

- 1. How do EFL pre-service teachers use LessonMate in the lesson planning process?*
- 2. How do EFL pre-service teachers evaluate LessonMate in terms of perceived usefulness, perceived ease of use, and perceived performance?*

3. Research methodology

3.1 Research design

This study employed a mixed-methods design, combining quantitative and qualitative approaches to provide a more comprehensive understanding of the research problem (Creswell, 2014). Quantitative data were collected through a questionnaire, while qualitative data from semi-structured interviews were used to further explore participants' experiences and perspectives.

3.2 Research procedure

The study was conducted following a five-phase procedure:

PSTs' needs analysis → LessonMate design and customization → Introduction and user training
→ 30-day lesson planning implementation → Data collection

To develop LessonMate, the researchers used ChatGPT's custom GPT function. LessonMate was customized using instructions specifying its name, intended functions, preferred output style, and other features identified through the PSTs' needs analysis. Based on the PSTs' learning needs, LessonMate was designed to provide step-by-step guidance throughout the lesson planning process, including setting learning objectives, selecting teaching methods, designing classroom activities, developing assessment tasks, and reviewing lesson plans. It was designed to support planning lessons for English grammar, vocabulary, pronunciation, and the four language skills with appropriate pedagogical approaches and other established learning theories. The chatbot was configured to incorporate classroom management strategies and generate lesson plans aligned with the Tiếng Anh 10, 11, and 12 Global Success textbooks and the 2018 Vietnam National Curriculum for General Education.

3.3 Research setting and participants

The participants in this study consisted of 100 third-year PSTs majoring in English language teaching at a university in central Vietnam. This group was selected because the participants had begun taking a teaching methodology course that provided training in lesson planning, including developing learning objectives, selecting teaching methods, designing classroom activities, and preparing assessment tasks. Therefore, they had relevant pedagogical knowledge and initial experience in lesson planning to engage with and evaluate AI-generated suggestions provided by LessonMate. The participants voluntarily participated in the study, and were provided with basic guidance on the use of LessonMate.

3.4 Research instruments

3.4.1 Questionnaires

In this study, a questionnaire was used to investigate PSTs' use and evaluation of LessonMate for lesson planning. The questionnaire was developed based on the TAM framework and relevant previous studies. The questionnaire consisted of 29 items, including 17 Likert-scale statements, and was organised into the following four clusters:

Table 1

Categorization of the questions in the questionnaire

	Questions	Content
Cluster 1	Closed-ended multiple-choice questions (Q1-Q5)	PSTs' background information
Cluster 2	Closed-ended multiple-choice questions (Q6-Q8)	PSTs' use of LessonMate in lesson planning
Cluster 3	Statements with a 5-point Likert scale (S1-S17)	PSTs' evaluation of LessonMate in terms of perceived usefulness, perceived ease of use and perceived performance, as well as its perceived comparison with ChatGPT
Cluster 4	Open-ended questions (Q1-Q4)	PSTs' difficulties and suggestions regarding the use of LessonMate

3.4.2 Interviews

The interviews followed a semi-structured format consisting of 10 prepared questions designed to further explore and clarify participants' questionnaire responses. Specifically, the interviews focused on PSTs' experiences using LessonMate for lesson planning, their perceptions and evaluations of the chatbot and their suggestions for further improvement.

3.5 Data collection and analysis procedure

First, the questionnaire was piloted with 10 PSTs to examine its reliability. The questionnaire was then analyzed using SPSS, with a Cronbach's alpha coefficient of .910 (see Table 2). This indicated that the instrument was reliable and that the questionnaire items and the response format were relatively clear and understandable. After a one-month period of lesson planning practice with LessonMate, 100 questionnaires were directly distributed to and collected from the participants. All participants were informed of the research purposes and asked for consent before participating in the study.

Table 2

Questionnaire reliability

Cronbach's Alpha	Number of Items
0.910	17

The data collected throughout the study were analyzed using SPSS Statistics 27.0 for quantitative analysis. Descriptive statistics, including frequencies, percentages, means, and standard deviations, were used to summarize PSTs' use and evaluation of LessonMate.

After analyzing the questionnaire data, ten participants voluntarily joined interviews conducted in Vietnamese to ensure clear understanding. The interviews were recorded and

transcribed. The interview questions were organized into three broad categories, as shown in Table 3.

Table 3

Themes from the interview questions

	Theme	Questions
1	PSTs' use of LessonMate	1-4
2	PSTs' evaluation of LessonMate	5-7
3	Comparison between LessonMate and ChatGPT	8-10

The qualitative data analysis process was conducted through several systematic steps: transcribing raw data into written text, thoroughly reading the transcripts to identify initial ideas, coding data into sub-themes within the predetermined categories, and selecting representative quotes. The processed interview data were used to elaborate on and explain the numerical trends obtained from the questionnaire data, providing deeper insights into participants' experiences and evaluations.

4. Findings

4.1 PSTs' use of LessonMate in lesson planning

Before examining PSTs' use of LessonMate, participants' background information regarding lesson planning experience, prior use of ChatGPT, and purposes of lesson planning was examined.

Table 4

Participants' background information

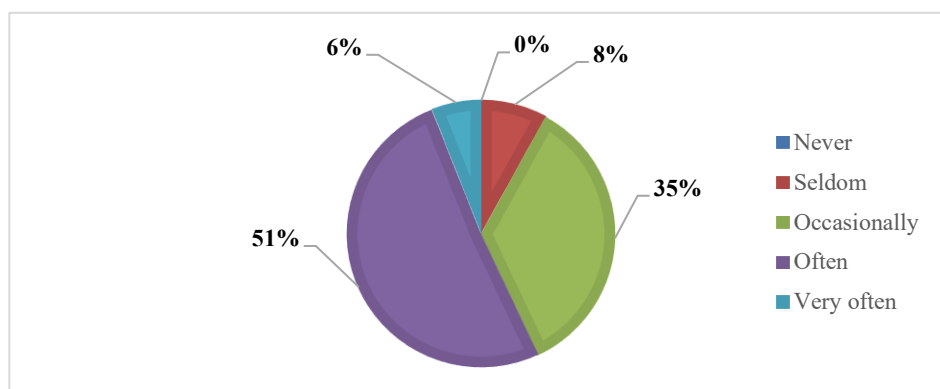
Participants' characteristics		Percentage (%)
Lesson planning experience	None	3
	Less than 6 months	15
	6–12 months	49
	> 1 year	33
Frequency of using ChatGPT	Never	0
	Seldom	6
	Occasionally	22
	Often	69
	Very often	3
Purposes of lesson planning	Microteaching	100
	Pedagogical internships	14
	Tutoring	33
	Formal teaching	7
	Lesson planning skill practice	20

Table 4 shows that most PSTs had some experience in lesson planning, with the largest proportion reporting 6-12 months of experience (49%). Most participants had previously used ChatGPT, with 69% reporting “often” and 22% “occasionally”. Regarding lesson planning purposes, all participants reported preparing lesson plans for microteaching activities, while some also prepared them for tutoring, lesson planning practice, pedagogical internships, and formal teaching.

Next, the process of using LessonMate, including the frequency of use, purposes of use, stages of use, and ways participants utilized the content generated by the chatbot is presented in the following section.

Figure 1

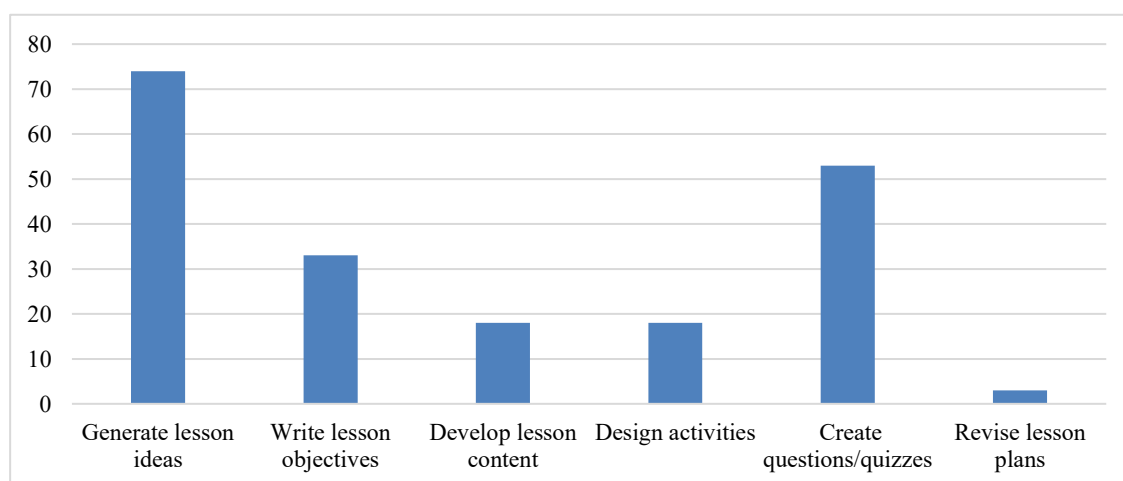
Frequency of LessonMate chatbot use in lesson planning by PSTs



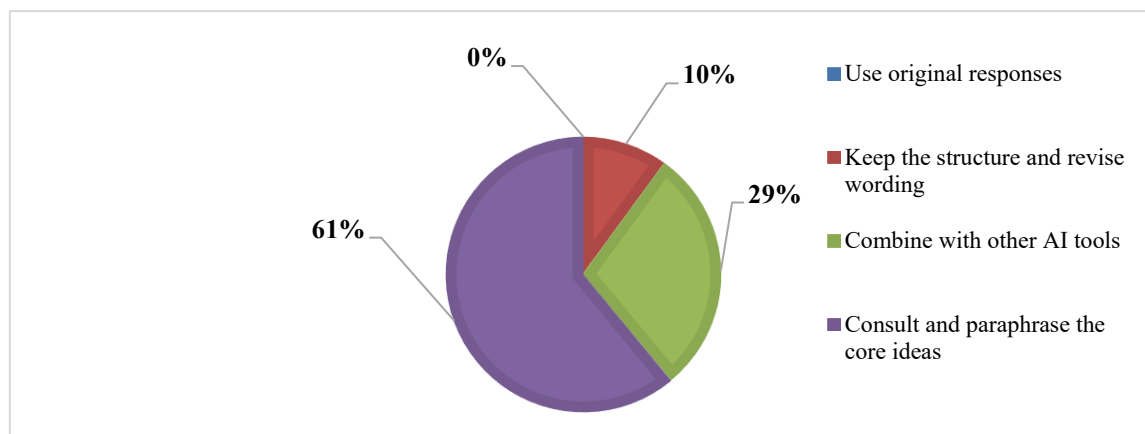
Regarding the frequency of using the LessonMate chatbot, Figure 1 shows that more than half of the participants (51%) reported frequently using the chatbot to support their lesson planning process. In contrast, a smaller proportion of students reported using the chatbot very frequently (6%) or rarely (8%).

Figure 2

Purposes of using LessonMate



Regarding purposes for using LessonMate, Figure 2 shows that it was used for various purposes throughout the lesson planning process. Specifically, 74% of PSTs reported using LessonMate to generate lesson ideas (74%), followed by creating questions and quizzes (53%). Meanwhile, 3% reported using LessonMate to revise their lesson plans.

Figure 3*Ways of using content generated by LessonMate*

The ways PSTs processed content generated by the LessonMate showed clear differences in the survey results. Specifically, the majority of PSTs (61%) reported that they used the chatbot mainly to obtain key ideas and then rewrote the content entirely in their own words. Notably, none of the participants shared that they directly copied the content without modification.

4.2 PSTs' evaluation of LessonMate

After examining how PSTs used LessonMate to support lesson planning, the study further explored their evaluation of LessonMate in terms of perceived usefulness, perceived ease of use, and perceived performance.

4.2.1 Perceived usefulness (PU)

The perceived usefulness of LessonMate in supporting lesson planning was investigated through a series of related statements, and the results are presented in the following table:

Table 5*PSTs' evaluation of the perceived usefulness of LessonMate*

	<i>N</i>	<i>M</i>	<i>SD</i>
1. LessonMate helps generate useful lesson ideas.	100	4.12	.624
2. LessonMate helps me select appropriate content/materials.	100	4.00	.816
3. LessonMate helps me design more effective activities.	100	4.17	.779
4. LessonMate helps me organize lesson plans more logically.	100	4.14	.697
5. LessonMate helps me present lesson plans in the required format.	100	3.90	.927
6. LessonMate helps me evaluate lesson plans.	100	4.06	.776
7. LessonMate helps me correct language errors (e.g., grammar, expression, etc.).	100	4.37	.661
8. LessonMate helps me anticipate potential teaching problems and suggest solutions.	100	3.64	.987
9. LessonMate helps answer my questions during the lesson planning process.	100	4.24	.621

As shown in Table 5, the mean scores ranged from 3.64 to 4.37, indicating that most students agreed with the statements regarding LessonMate's usefulness in supporting lesson planning. Specifically, the highest-rated items were LessonMate's support for correcting language errors ($M = 4.37$) and answering questions during the lesson planning process ($M = 4.24$). Notably, the item concerning LessonMate's support in anticipating potential problems and suggesting solutions received the lowest mean score and the highest standard deviation ($M = 3.64$; $SD = .987$).

4.2.2 Perceived ease of use (PEOU)

This section presents PSTs' evaluations of the perceived ease of use of LessonMate in order to examine the practicality of this tool in the lesson planning context.

Table 6

PSTs' evaluation of the perceived ease of use of LessonMate

	<i>N</i>	<i>M</i>	<i>SD</i>
10. I quickly became familiar with using LessonMate.	100	4.12	.608
11. I can easily express my requests when interacting with LessonMate.	100	4.06	.908
12. I can easily understand the responses provided by LessonMate.	100	4.16	.692
13. I can easily control and revise the content generated by LessonMate.	100	4.07	.573

Table 6 presents PSTs' evaluation across four criteria, with mean scores ranging from 4.06 to 4.16. These results indicate that PSTs consistently perceived LessonMate as user-friendly in lesson planning. Among the criteria, the chatbot's ability to provide clear and understandable responses received the highest mean score ($M = 4.16$), followed by its ability to help users quickly become familiar with its use for lesson planning ($M = 4.12$). The other two criteria also received relatively high ratings ($M = 4.06$ and 4.07). The item concerning participants' ability to express their requests when interacting with LessonMate showed the greatest variability in responses ($SD = .908$).

4.2.3 Perceived performance of LessonMate

To provide a more comprehensive evaluation of LessonMate, PSTs' perceptions of its performance were also examined based on several specific criteria and the results are presented as follows:

Table 7

PSTs' evaluation of the performance of LessonMate

	<i>N</i>	<i>M</i>	<i>SD</i>
14. LessonMate makes my lesson planning process more effective.	100	4.33	.604
15. LessonMate helps me save time when preparing lessons.	100	4.17	.757
16. LessonMate helps reduce my workload in lesson planning.	100	4.15	.725
17. LessonMate works effectively as a teaching assistant.	100	4.20	.679

Table 7 shows that LessonMate received high ratings in terms of its performance, with mean scores ranging from 4.15 to 4.33. The highest-rated statement was "*LessonMate makes my lesson planning process more effective*" ($M = 4.33$), indicating positive perceptions of LessonMate's contribution to PSTs' lesson planning process. The other items, including "*saving time*" ($M = 4.17$) and "*reducing workload*" ($M = 4.15$), and "*working effectively as a teaching assistant*" ($M = 4.20$), also received relatively high ratings.

4.2.4 Comparison of LessonMate and ChatGPT

LessonMate, developed on the ChatGPT platform, allows users to customize its functions and responses (OpenAI, 2023). Therefore, its effectiveness was compared with that of ChatGPT, as presented in the following table:

Table 8

Comparison between LessonMate and ChatGPT

	<i>N</i>	<i>M</i>	<i>SD</i>
1. LessonMate provides more accurate and reliable responses than ChatGPT.	100	3.98	.887
2. LessonMate provides responses that better match users' requests than ChatGPT.	100	4.05	.880
3. LessonMate helps me create lesson plans that better fit teaching contexts and learner characteristics.	100	4.09	.726
4. LessonMate helps me create lesson plans that are more culturally appropriate.	100	3.87	.837
5. LessonMate provides more in-depth responses than ChatGPT.	100	4.17	.766
6. LessonMate is easier to use than ChatGPT.	100	3.95	.796
7. LessonMate helps me save more time in lesson planning.	100	4.21	.782

Table 8 shows that PSTs generally expressed positive perceptions of LessonMate relative to ChatGPT, with mean scores ranging from 3.87 to 4.21. The highest rated items concerned saving time in lesson planning ($M = 4.21$) and providing more in-depth responses ($M = 4.17$). Interview data supported these findings, with participants highlighting LessonMate's ability to quickly generate lesson sequences, activities, worksheets, and assessment ideas.

Notably, the lowest mean scores were for response accuracy, ease of use, and cultural appropriateness ($M = 3.98$, 3.95 , and 3.87 respectively). This suggests that some PSTs did not perceive a clear difference between LessonMate and ChatGPT, particularly in terms of accuracy and contextual relevance.

5. Discussion and recommendations

5.1 LessonMate as a supportive tool in lesson planning

Based on the survey results across three aspects, namely frequency of use, purposes of use, and ways of processing generated content, it can be seen that LessonMate was relatively well integrated into students' lesson planning practices, although it mainly acted as a supportive tool rather than a replacement for users' active roles.

Specifically, most PSTs perceived LessonMate as a useful tool for supporting lesson planning, particularly during the initial stages, such as generating lesson ideas and creating questions. These uses of LessonMate reflect its supportive role in the planning process.

More importantly, the responses show that students were aware of their role in evaluating and adapting AI-generated content to fit their own needs. Most participants reported using key ideas generated by LessonMate and rewriting the content rather than directly copying it. This finding shows PSTs' active role in selecting and adapting AI-generated content for their lesson planning.

When compared with the study by Collins et al. (2024), which also focused on a customized GPT, it can be seen that despite differences in contexts, particularly between students in anatomical sciences and pre-service teachers, both customized GPTs, namely AnatomyGPT and LessonMate, fulfilled their intended functions of supporting users in the learning process. While AnatomyGPT supported students' self-directed learning through detailed explanations, interactive quizzes, and specialized learning resources, LessonMate supported PSTs during lesson planning by providing ideas, suggestions, and feedback. It can be claimed that although customized GPTs can provide relevant support and ideas, human users remain responsible for evaluating, interpreting, and adapting AI-generated content according to their specific needs and contexts.

5.2 Perceived usefulness, ease of use, and performance of LessonMate

The findings revealed that PSTs held positive perceptions of LessonMate's role in supporting lesson planning. The chatbot was considered useful for providing immediate and clear feedback, generating ideas, and supporting key lesson planning tasks. In most interviews, students also reported that LessonMate understood their prompts well and responded quickly, making the lesson planning process more efficient. However, its ability to anticipate potential teaching problems received relatively lower evaluations, as such tasks require a deeper understanding of teaching experience and specific classroom contexts. This limitation highlights why GenAI tools cannot fully replace teachers' pedagogical judgment and expertise. This finding is consistent with Wen and Wen (2024), who emphasized that effective lesson planning still requires critical thinking, creativity, contextual judgment, professional knowledge, and other human qualities that current GenAI tools do not fully possess.

In terms of ease of use, PSTs consistently perceived LessonMate as user-friendly in lesson planning. The chatbot not only delivered understandable information but also had a convenient interface and interaction process that required little time to learn. However, effective use of the chatbot still largely depended on users' prompting skills. When requests were unclear, the chatbot often gave general or irrelevant responses, and some PSTs had difficulty in expressing their ideas in English. Similarly, Klar (2025) found that GenAI tools such as ChatGPT were perceived as easy to use, especially when prompting guidance was provided. This finding highlights the important role of effective prompting skills, which should be emphasized and developed among users to support their use of customized GPTs in lesson planning.

Additionally, LessonMate was positively evaluated in terms of its perceived performance. PSTs perceived LessonMate as helping them save time and reduce workload during lesson planning. These findings suggest that the chatbot functioned as a supportive tool throughout the lesson planning process. These findings reinforce the assertion of Karpouzis et al. (2024) that GenAI tools can function as virtual assistants that effectively support teachers in lesson planning by providing relevant information, saving time, and addressing diverse learning needs.

5.3 Advantages and limitations of LessonMate compared with ChatGPT

The comparison results indicate that PSTs generally expressed positive perceptions of LessonMate relative to ChatGPT, particularly in terms of saving lesson planning time and providing more in-depth responses. These findings highlight potential advantages of custom GPTs such as LessonMate in addressing users' specific lesson planning needs. Notably, these user-perceived

advantages are generally consistent with the intended specialized functions of custom GPTs.

However, customization did not eliminate the limitations associated with large language models (LLMs). Although LessonMate was customized based on relevant theoretical background and users' requirements, participants reported several limitations in its responses. In particular, local cultural factors and contextual values were not fully reflected. Interview data further revealed participants' concerns about the chatbot's accuracy and contextual relevance. LessonMate sometimes provided information that sounded reasonable but was not necessarily accurate or fully aligned with requirements. Suggested objectives were sometimes not suitable for the lesson content, while suggested activities did not always match the required teaching methods.

The issue of cultural and contextual relevance was particularly noticeable in the Vietnamese teaching context. LessonMate often suggested Western cultural content such as Halloween or Christmas because these were common, while Vietnamese or local cultural elements were less represented. Similarly, some suggested activities were considered too complex for large classes in Vietnam and required modification to fit the context. These findings suggest that, despite being customized based on theoretical foundations and users' needs, the chatbot still appeared to reflect certain limitations commonly associated with large language models, including cultural bias, insufficient contextual sensitivity, and inconsistency in output quality. Similar limitations of AI chatbots have also been reported by Kang and Lee (2026). The findings therefore highlight the importance of users critically evaluating and adapting AI-generated content to specific teaching and cultural contexts.

6. Conclusion

Overall, LessonMate primarily served as a supportive tool while allowing PSTs to remain active decision-makers. It was perceived as useful, easy to use, and supportive of lesson planning. Although it was perceived to offer several advantages over ChatGPT, its customization could not fully overcome the limitations associated with LLMs.

Based on the findings of this study, it is recommended that PSTs use AI tools actively and responsibly as supportive resources rather than replacements for their pedagogical thinking, while developing effective prompting, reflective practice, and AI integration skills. Teacher educators should provide guidance on the responsible and critical use of GenAI and integrate customized chatbots into teacher education and professional development activities. At the institutional level, universities should provide appropriate AI-based tools and training, and opportunities for teachers and students to share experiences and explore pedagogically appropriate ways of integrating AI into teaching and learning.

This study has several limitations that should be acknowledged. First, it only explored PSTs' feedback on LessonMate and did not examine their actual use of the chatbot in depth through analyses of lesson plans or chat logs between PSTs and LessonMate. Second, the research was conducted within a limited scope and context, which may reduce the generalizability of the findings; therefore, future studies should examine LessonMate or similar customized GPTs across different contexts and participant groups. Finally, the period of experience with the tool was relatively short, so longitudinal research is needed to gain deeper insights into PSTs' experiences and the potential impact of LessonMate on lesson planning skills and professional development.

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