Empowering Pre-Service English Teachers Through AI-Based Lesson Design: A Case Study on Curipod

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Article information	Abstract
	This study investigates the use of Curipod, an AI-powered lesson design tool, in developing planning competence among pre-service English language teachers. Situated within the "Teachnology" training program in Uzbekistan, the study involved six trainees who used Curipod to design and deliver interactive 30-minute demo lessons. Drawing on lesson plan evaluations, reflections, and observer notes, the study found that Curipod enhanced the structural quality of lessons, reduced planning anxiety, and encouraged creative integration of multimodal elements. Trainees reported improved confidence in organizing content, timing tasks, and aligning objectives with classroom activities. However, challenges included overreliance on AI templates and occasional mismatches in content relevance. The findings highlight Curipod's role as a digital scaffold, supporting pedagogical thinking without replacing the teacher's role. Implications for teacher education include integrating reflective tasks on AI use, promoting critical digital literacy, and ensuring contextual and cultural adaptation of AI-generated content. The study contributes to growing research on AI in ELT, offering practical recommendations for using generative tools in teacher preparation programs.

INTRODUCTION

Lesson planning is a critical skill for pre-service English language teachers, but it presents challenges for novices (Cuñado & Abocejo, 2019; Rubiano & Granada, 2020). Effective lesson planning requires coherence in pedagogical reasoning, addressing students' needs and interests, and in accordance with educational policies (Choi, 2019; Rubiano & Granada, 2020). Engaging in lesson planning supports pre-service teachers in the development of their pedagogical content knowledge, in the development of critical reading skills, and in preparation for real classrooms (Choi, 2019; Cuñado & Abocejo, 2019). Some of the noted challenges are the the lack of readily available materials, poor student involvement, and mismatch between assessments and learning objectives (Cuñado & Abocejo, 2019). Pre-service teachers acknowledge the significance of planning but face challenges in planning-teaching (FaqeAbdulla, 2024). To address these challenges, eacher education programs need to give an effective orientation and instruction on lesson planning skills (FaqeAbdulla, 2024; Acosta Rubiano & Granada, 2020).

Despite its prominence in teacher education frameworks, lesson planning remains a persistent challenge for novice teachers (Sebullen, 2023; König et al., 2021). Common difficulties include aligning objectives with assessment, sequencing activities logically, adapting to learner needs, and managing time effectively (Sebullen, 2023; Cuñado & Abocejo, 2019). These challenges are often compounded by pre-service teachers' limited classroom experience, leading to planning that is either overly scripted or insufficiently responsive (Cuñado & Abocejo, 2019). Moreover, in the current educational climate shaped by rapid digital transformation, planning no longer refers solely to the arrangement of physical materials or textbook-based content. It increasingly involves the integration of interactive technologies, visual media, and digital engagement tools, placing additional demands on teacher competence (Cevikbas et al., 2023).

In response to these demands, AI-based educational platforms have been developed that are not just focused on enhancing teacher productivity but are tailored to help improve pedagogical capability. One such platform is Curipod, an AI tool in a web browser that allows teachers to co-create interactive, slide-based lessons that align with their lesson objectives. Curipod provides curated prompts by area of focus, leveled question prompts, and automatic activity recommendations based on sound learning science and instructional design. Unlike conventional presentation tools, Curipod is a tool for teaching and enables a seamless integration of polls, quizzes, open tasks, and content scaffolds that are in line with Communicative Language Teaching (CLT) principles in ELT.

For teacher competence frameworks like the European Profile for Language Teacher Education (Kelly et al., 2004) and Tuning Educational Structures in Europe, planning is described as a central methodological competence. Methodological skill is the ability to plan, do, and review effective lessons in the light of pedagogic aims and pupils' needs. Nevertheless, as suggested by Redecker and Punie (2017) in the European Framework for the Digital Competence of Educators, the digitalization of education requires the inclusion of new layers of competence – namely, digital resource curation, AI literacy, and pedagogical use of emerging technologies. AI-infused planning tools, such as Curipod, do not bring efficiency but also new ways for pre-service teachers to think and build lessons.

Existing research on concerning digital lesson planning tools offers some interesting findings, particularly within the scope of primary and secondary education. For example, research about Pear Deck and Nearpod has suggested that systems featuring automation and interactivity have the potential to provide aid in lesson organization, enhance student engagement, and promote pedagogical self-reflection (Ahmed et al., 2022; Stewart, 2021). This support allows teachers to see sequences of learning, incorporate formative assessment, and foster active learning–elements that are key to good lesson design. Yet, most research is classroom-based (in-service teachers), mainstream, or pre-vocational education, while not much is known about the teaching skills of pre-service language teachers in tertiary education. In addition, few studies have examined the extent to which AI tools impact planning cognition, pedagogical self-efficacy, or the application of theoretical knowledge to the practical design of lessons.

Recent studies explore the integration of generative AI tools in teacher education and lesson planning. These tools can enhance lesson quality, reduce planning time, and foster creativity (Kehoe, 2023; Seo et al., 2024; Lee & Kweon, 2023). Pre-service teachers recognize AI's potential for delivering subject content and developing innovative teaching strategies, while also acknowledging the need for digital literacy and critical thinking (Seo et al., 2024; Bae et al., 2024). AI tools like ChatGPT and MagicSchool AI can accelerate lesson planning, support differentiated instruction, and reduce workloads (Setyaningsih et al., 2024). However, challenges remain, including the need for teacher oversight, effective prompt-engineering skills, and adaptation to classroom dynamics (Setyaningsih et al., 2024). While AI shows promise in enhancing pedagogical creativity and reducing planning anxiety, it is viewed as a collaborative tool rather than a replacement for human expertise (Kehoe, 2023; Setyaningsih et al., 2024).

In spite of these encouraging findings, there still exists a void in the research of AI-based lesson planning tools on preservice teacher educators in EFL specialized pre-service teacher education programs. The impact these tools have on the development of planning skills of beginning English teachers, the extent to which they support the implementation of ELT methodologies, and the construction of a particular type of teacher agency and autonomy. Most of the research has centred on tool usability and classroom effects, and few studies have rigorously explored how AI-supported planning shapes the professional identity and instructional reasoning of early career teachers.

This study aims to address the gaps by exploring six pre-service English teachers' use of Curipod in the context of a focused teacher training program, teachnology, whose main goal was to develop both pedagogical and digital competences. The research is conducted through a mixed-methods classroom-based investigation that considers how (1) pre-service teachers interact with AI-generated lesson

suggestions, (2) the impact of the platform on their planning schema/and pedagogical decision-making, and (3) the challenges and benefits of using AI as part of their instructional design process.

The novelty of the research is that it focuses on the context-specific pre-service ELT planning competence, explores Curipod as a co-creative AI tool instead of a content delivery tool, and incorporates teacher reflection and experiential insights into the analysis. By framing Curipod as a scaffold for beginning planners and a lens for understanding the changing relation between digital tools and teacher education, this article contributes to a larger discussion about AI in education, technology-mediated language learning, and the futures of teacher education in digital times.

METHODS

This research is based on the technology training program, a month-long in-person professional development course at Malika Education in early 2025. It was a training program to improve pedagogical and ICT competency of new ELT teachers through organized workshops, practice, and ICT integration. This article is based on the two-week institute in the program, where the AI-assisted lesson planning component was implemented using the Curipod platform. All six of the pre-service English teachers (four females and two males) had 1 or 2 years of part-time or practicum teaching experience. All participants were English Education or other similar field undergraduate students who were in their last year of teacher training. The research was based on a qualitative exploratory study, the purpose of which was to investigate how the Curipod impacted participant planning, pedagogical judgments, and reflection.

Each participant completed and reflected on a 30-minute demo lesson over a two-week period, which each participant was required to plan, teach, and reflect upon using Curipod as their main action-planning tool and mechanism for sharing with their peers. Teachers created interactive slide lesson plans that incorporated: (i) an objective, (ii) warm-up, (iii) presentation of new language or content, (iv) practice (in pairs or individually), and (v) an exit ticket or formative check. Curipod's AI-generated recommendations were made accessible at any stage of the planning phase, but users were encouraged to adjust content according to the characteristics of their learners and their learning objectives.

To achieve recording of planning behavior and perceived benefits, after developing the lesson, the participants submitted a written planning reflection and filled out a post-lesson feedback survey. These written products comprised the core of the qualitative data set. The research team also observed all demo lessons in a non-participant role, collecting structured field notes based on instructional flow, interactivity, student engagement, and visual coherence. To support a structured review of effective planning, the researchers created an easy analytic rubric (coded from 1 to 5) for both lesson quality and metacognitive content which addressed three areas of lesson quality (clarity of objectives, sequence of lesson stages, and alignment between stated goals and the lesson) as well as stated objectives and related instructional activities. Each lesson was assessed according to this framework before and after the implementation of Curipod, which enabled a comparison of lesson planning quality with and without AI support. Two researchers worked together in coding and analysis to improve inter-rater reliability and to reduce subjectivity.

This multi-modal data collection—comprising lesson artifacts, reflections, surveys, and observations—allowed for a context-sensitive and triangulated exploration of how Curipod functions as a pedagogical support tool for novice English teachers. Ethical clearance was obtained from the program organizers, and informed consent was secured from all participants. Data were anonymized during reporting to protect confidentiality.

RESULT

The analysis revealed a marked improvement in both the organization and creativity of lesson plans following the integration of Curipod. Quantitative data based on the analytic rubric (1–5 scale) showed

that the average rating of lesson structure across the six participants increased from 2.6 before using Curipod to 4.3 after its implementation. This improvement was most pronounced in three key areas: (1) the fluidity of transitions between lesson stages, (2) the appropriate allocation of time for each task, and (3) the coherence between learning objectives and classroom activities.

Participants attributed this enhancement largely to Curipod's AI-powered visual structuring and pre-generated scaffolds, which enabled them to conceptualize their lessons more holistically. The platform's slide-based interface allowed teachers to map out lesson phases in a linear, yet flexible format, reducing cognitive overload during the planning process. On average, participants reported that lesson planning time decreased by approximately 30%, citing greater ease in generating warm-ups, eliciting vocabulary, and designing communicative practice tasks.

Several teachers emphasized that Curipod not only improved the technical execution of their plans but also encouraged creative experimentation. For example, multiple participants used the platform's brainstorming features to develop context-rich scenarios and adapted AI-suggested prompts to suit their teaching styles. As one trainee noted in their reflection: "Curipod gave me the skeleton I needed—I just had to fill in the flesh with my teaching style." Another commented: "I used to stress about slide design and transitions. Curipod did that for me, so I could focus on the students."

However, the findings also pointed to a potential drawback. Two participants expressed concern about the risk of over-reliance on default templates, which at times resulted in generic or context-mismatched content. This observation suggests that while Curipod is a powerful planning scaffold, it must be used critically and adaptively, with teachers retaining editorial control over content and sequencing.

Qualitative reflections indicated a noticeable increase in teacher confidence, task clarity, and satisfaction with the planning process. Participants described a shift from feeling overwhelmed by structural decisions to focusing more on learner engagement and instructional delivery. The platform appeared to reduce planning anxiety and reallocate cognitive resources toward pedagogical decision-making, a key indicator of developing methodological competence.

The overall findings suggest that Curipod supports novice teachers in internalizing the components of effective lesson planning while simultaneously freeing up mental bandwidth for instructional creativity and learner responsiveness. These insights underscore the platform's potential as both a productivity enhancer and a developmental scaffold within pre-service teacher education.

Below is a chart illustrating the change in average lesson structure ratings before and after Curipod use:
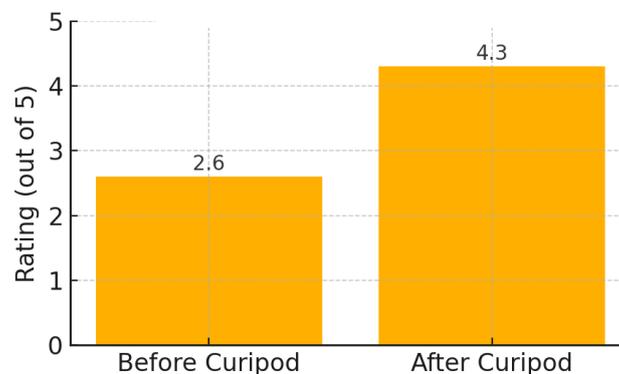

Figure 1. Average lesson structure ratings before and after using Curipod.

DISCUSSION

This study reinforces the current agreement regarding the potential of AI-based platforms such as Curipod to work as digital scaffolds in the initial training stages of teachers. These results indicate that Curipod enhances the ability of ESL beginners to design and sequence pedagogically sound lessons by

providing staged templates, visual analysis, and hierarchical activity suggestions. The platform does not disrupt the role of the teacher, but rather that the teacher is still a crucial and necessary element within the instructional frameworks, although it acts to "provide releave [sic] of cognitive demand" of the cognitive process of structuring lessons to free "mental space for thinking about instruction and students." This is consistent with Sweller's Cognitive Load Theory (1988) in suggesting that by eliminating extraneous cognitive workload, learners—and in such a case, beginning teachers—are able to concentrate on the essential elements of problem solving and decision-making.

This study has pedagogically shown that Curipod was useful in developing pre-service English teachers' lesson planning competency. Providing teacher and student prompts, creative input tools, and multimodal templates, the platform alleviates planning anxiety, promotes design thinking, and supports risk-taking with interactive instructional forms. These results agree with Hsu et al. (2024), who discovered that early exposure to generative AI in teacher education had a positive effect on comfort and perceived planning effectiveness. Furthermore, the sample in the present study demonstrated better pacing, cohesion, and questioning—mirroring Fan et al. (2024) also noted this trend in the novice teachers who worked with AI tools such as Lesson Planner. However, the findings also highlight the importance of critical digital literacy. Two participants noted that uncritical adoption of Curipod's default outputs sometimes led to generic or mismatched content. This reflects broader concerns about algorithmic limitations, where platforms offer visually engaging but pedagogically shallow materials. As such, pre-service teachers must be trained not only in how to use AI tools but also in how to evaluate and adapt their outputs, ensuring alignment with learning goals, learner profiles, and cultural context. This aligns with Redecker & Punie (2017) and the DigCompEdu framework, which emphasize that digital competence involves both technical operation and critical pedagogical reflection.

Indeed, the role of AI should be understood through the lens of Vygotsky's sociocultural theory, where tools like Curipod act as "more capable others," providing cognitive scaffolds within the teacher's Zone of Proximal Development (ZPD) (Vygotsky & Cole, 1978). Yet, as in any scaffolding process, teacher autonomy must ultimately increase, and the reliance on tools must decrease through reflection, experience, and internalization. This suggests that AI should support—not substitute—professional judgment, a point underscored by this study's emphasis on guided reflection and contextual adaptation (Al-Hamadi & Yousif, 2025).

A major contribution of this study was shedding light on Curipod's support for shifting lesson planning from an individual activity to a collaborative co-design process. The notion that pre-service teachers work collaboratively with AI to plan together suggests a larger shift in pedagogy—from technology as a tool to technology as an interlocutor. As Nyaaba et al. (2024) mentioned that many pre-service teachers now consider GenAI to be both a "learning buddy" and a "teaching assistant." Yet unmitigated dependence on AI induces pedagogical superficiality. Absent critical intervention, the content produced by AI may be perfectly produced, but be devoid of cultural resonance, of linguistic subtlety, or value for the adaptational needs of the learner.

This fear was manifested in the current study, where local idiomatic expressions in the classroom setting may have sometimes not been directly reflected in Curipod's outputs, according to the participants. Introducing reflective tasks to teacher education that invite students to critically analyze AI content, and its cultural underpinnings is vital (Abualrob, 2025). This kind of training helps teachers avoid being naïve followers of AI, instead leveraging AI as a starting point for contextualized lesson crafting.

Beyond pedagogical affordances, Curipod has potential as a mechanism for equity and access, especially in resource-constrained or mentor-deficient locations. In these less developed or underserved context areas, where experienced mentoring support and formal lesson plans are often limited or non-existent, AI tools can provide scalable and immediate support for planning. This is in line with the worldwide trend towards democratization of the resources for teachers and reducing instructional

inequalities (e.g., Abualrob, 2025). While not the focus of this study, initial responses indicate that Curipd may also help visual learners and assist teachers in working with students who need more scaffolding. Subsequent studies should investigate how such platforms can integrate inclusive design elements like adaptive content, accessibility tools, and captioning for learners with special needs (Fan et al., 2024).

The implications for the design of programs of teacher education are obvious. It may also be useful for institutions to incorporate practicum-based training that includes AI-supported planning tasks, which will allow students to compare traditional and AI-based planning. Furthermore, an emphasis on critical use of digital tools should be included in assessment rubrics, with AI being seen as not just a 'novelty', but an integrated aspect of critical practice for planning reflection.

In the future, this work shall pave the way to several critical research directions. Longitudinal studies are required to determine whether AI-supported planning contributes to different lesson qualities, teachers' confidence, and classroom enactment. Comparative scrutiny of different platforms like Curipod, Nearpod, and LessonPlanner could provide a new perspective on design cues that facilitate or prevent pedagogic agency. In addition, subsequent studies should probe how in-service teachers employ AI-based planning tools in day-to-day classroom practice, and if long-term adoptions help to foster professional development or reliance.

In summary, Curipod is a good candidate for the introduction of AI in pre-service teacher training. When situated in critical, reflexive, and culturally responsive frameworks of curriculum, AI tools such as Curipod ease lesson planning and encourage pedagogical imagination, decrease novice stress, and develop digital discernment. The aim of educating teachers should not be to create tool-bound doers, but to train future educators who can work as thoughtful agents with technology as though they were in cowboy country, and at the same time maintain professional agency with situational sensibilities. Through such preparation, preservice English teachers could position themselves as forward-thinking, flexible, and critically engaged practitioners prepared to make their way in today's fast-changing world of 21st-century language education.

CONCLUSION

This research finds that AI-supported systems such as Curipod contribute significantly to increasing the lesson planning efficacy of pre-service English teachers, by decreasing cognitive load, providing support for structural coherence, and fostering creative and student–centred instructional design. The results indicate that Curipod may serve as a potent scaffold for beginning teachers, yet the potency of the tool is contingent on critical use, reflective support, and cultural contextualisation. With careful integration into teacher-education programs, Curipod can save time on planning and provide digital confidence as well as greater teaching autonomy. Nevertheless, it is necessary, for impact, for teacher training to move beyond technical use to that which enables digital literacy, cultural awareness, and critical thinking. As AI tools gain more prominence in education, future studies of their long-term impact on teaching identity, lesson quality, and on differentiated instruction would be indicated, as long as we have the capacity for such AI tools to become enhancements rather than substitutions of our teaching, catalysts for pedagogical development and equity for English language learning.

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