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From Search Engine to Planning Partner: A Peer-Led Model for Developing EFL Teachers' Generative AI Competence in Under-Resourced Higher Education

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Abstract. Generative artificial intelligence (GenAI) is changing how language teachers prepare lessons, yet most guidance on teachers' AI competence assumes well-resourced systems with formal training and institutional policy. In many higher education contexts, teachers instead face large, mixed-ability classes, limited budgets and no institutional guidance on AI use. This practice-based paper describes and reflects on a peer-led professional development model for using GenAI in lesson preparation, developed and delivered by an English lecturer for colleagues in a university foreign languages department in Uzbekistan, a country with an ambitious national AI strategy but little institutional guidance. Grounded in the TPACK framework as reinterpreted for GenAI (Mishra et al., 2023) and the UNESCO AI Competency Framework for Teachers (Miao & Cukurova, 2024), the paper presents (a) four design principles for peer-led AI training, (b) a five-session workshop built around teachers' own lessons, and (c) a tool-independent Plan -Prompt – Check – Adapt – Reflect cycle for AI-assisted lesson preparation, illustrated with a model prompt and a quality-check list. Reflections from implementation suggest that the most valuable change for teachers is not speed but the move from using GenAI as a search engine to using it as a drafting partner under critical teacher control, especially when differentiating materials for mixed-ability groups. The paper discusses the conditions under which the model may transfer to other under-resourced contexts and outlines directions for empirical evaluation.

Keywords: generative AI; lesson planning; EFL teacher education; teacher professional development; peer-led training; AI competence; under-resourced contexts

1. Introduction

Lesson preparation is one of the most time-consuming parts of a language teacher's work. A single B1 reading lesson may require a text at the right level, pre-teaching vocabulary, comprehension questions, a speaking follow-up and a writing task, often in several versions for learners of different ability. Since the public release of ChatGPT in November 2022, generative AI (GenAI) has offered teachers a new way to produce such material in minutes rather than hours (Kohnke, Moorhouse, & Zou, 2023a).

Early research suggests that language teachers see the greatest value of GenAI in materials creation rather than in assessment or feedback. In a survey of 367 university language educators from 48 countries, most expected to use ChatGPT for creating materials but were less willing to use it for writing feedback or automated assessment, and hands-on users were more positive than non-

users (Alm & Ohashi, 2024). Studies in Indonesia (Setyaningsih et al., 2024), Kazakhstan (Fazilova & Kayip, 2025), Oman (Namdari et al., 2025) and Iran (Tafazoli & McCallum, 2025) report a similar pattern: teachers value speed and variety, but AI output rarely goes straight into the classroom without adaptation.

However, this evidence base is uneven. Much of the most-cited work on language teachers and GenAI comes from well-resourced systems, notably Hong Kong, where teachers have access to structured courses and institutional support (Kohnke, Moorhouse, & Zou, 2023; Moorhouse et al., 2024). UNESCO reports that as of 2022 only seven countries had developed an AI competency framework or professional development programme for teachers (Miao & Cukurova, 2024). In most systems, therefore, teachers are adopting GenAI without formal preparation, often while teaching large, mixed-ability classes with limited materials. How teachers in such contexts learn to use GenAI well, and what kind of support helps them, remains poorly understood.

Uzbekistan offers an instructive example of this wider situation. On 14 October 2024 the President approved the Strategy for the Development of Artificial Intelligence Technologies until 2030 (Resolution PQ-358), which names education among its priority sectors (Republic of Uzbekistan, 2024). Yet, as in many countries, national ambition has moved faster than institutional practice: English is compulsory in undergraduate programmes, groups are often mixed in ability, and many universities have no guidance on staff use of AI. Teachers therefore tend to learn about GenAI informally, from colleagues. This paper draws on one such case, in which the author, an English lecturer, designed and led a practical GenAI workshop for colleagues in her own department.

The aim of this practice-based paper is threefold:

1. to describe a peer-led model for developing EFL teachers' GenAI competence for lesson preparation, including its design principles and workshop structure;
2. to propose a tool-independent cycle for AI-assisted lesson preparation, illustrated with practical examples;
3. to reflect on implementation and discuss how the model may transfer to other under-resourced higher education contexts.

2. Literature review

2.1 GenAI as a tool for language teachers' preparation work

Kohnke, Moorhouse and Zou (2023a) describe ChatGPT's affordances for language teaching, including generating texts, dialogues, quizzes and level-adapted materials, and argue that teachers need specific digital competencies to use it ethically and effectively. Empirical studies since then confirm that preparation tasks are where teachers most readily adopt GenAI. University EFL teachers in Oman described ChatGPT as efficient, flexible and supportive of curriculum alignment, valuing its ability to save time and generate adaptable content (Namdari et al., 2025). Teachers in the Philippines likewise saw it as a resource for writing activities and skills practice, while raising concerns about accuracy and misuse (Mabuan, 2024).

Studies that focus specifically on lesson planning report a consistent tension between speed and quality. Setyaningsih et al. (2024) followed 38 Indonesian secondary EFL teachers using MagicSchool AI after a workshop. AI accelerated planning, supported differentiated instruction and encouraged creativity, but its output was rarely ready for immediate use and required prompt-writing skill, critical oversight and substantial adaptation. Kazakhstani EFL teachers held broadly positive attitudes to AI-generated lesson plans, but noted inflexibility, a lack of attention to specific learners' needs, and the risk of automation bias (Fazilova & Kayip, 2025). These findings suggest that the teacher's evaluative judgement, not the tool, determines the quality of the final lesson.

2.2 Teacher knowledge for GenAI: TPACK and AI competence

The Technological Pedagogical Content Knowledge (TPACK) framework describes good technology integration as the interaction of technological, pedagogical and content knowledge in a specific context (Mishra & Koehler, 2006). Mishra, Warr and Islam (2023) argue that GenAI shares some features with earlier digital tools, being protean, opaque and unstable, but is new in being generative and social: it produces original content on demand and interacts in a human-like way. Teachers therefore need not only to operate the tool but to judge, adapt and take responsibility for what it produces.

The UNESCO AI Competency Framework for Teachers (Miao & Cukurova, 2024) sets out 15 competencies across five dimensions: a human-centred mindset, ethics of AI, AI foundations and applications, AI pedagogy, and AI for professional learning. Each is described at three levels: Acquire, Deepen and Create. In language education specifically, Moorhouse et al. (2024) proposed a Professional GenAI Competence (P-GenAI-C) framework and showed that an 11-week course improved pre-service teachers' pedagogical competence and critical awareness of GenAI, though less so their ability to guide students' own AI use.

2.3 Professional development for AI use

Teachers' readiness depends heavily on familiarity. Interviews with twelve university English instructors in Hong Kong showed that confidence with AI tools, along with tailored institutional support and professional development, shaped their willingness to adopt them (Kohnke, Moorhouse, & Zou, 2023b). Moorhouse (2024) found that first-year teachers who had experimented with ChatGPT were far more ready to use it professionally than beginning teachers who had not. Pre-service teachers, for their part, report insufficient training and weak institutional support as the main barriers to developing AI literacy (Kohnke et al., 2025).

Most of this research comes from contexts where AI training is delivered through formal courses or by researchers. Peer-led professional development, in which a practising colleague shares classroom-tested routines, is well established in teacher education but has rarely been examined in relation to GenAI. It may be especially relevant where institutions lack AI policies and budgets for external training.

2.4 Research gap

Three gaps emerge. First, research on teachers' GenAI use is concentrated in well-resourced systems, and in-service university teachers working without institutional guidance are under-represented; Central Asia, including Uzbekistan, is almost absent from the literature. Second, few studies examine lesson preparation for mixed-ability groups, a common reality in many systems worldwide. Third, the effect of peer-led rather than expert-led AI training is largely unexplored. This paper responds to these gaps with a practice-based account of a peer-led model and a practical framework that other institutions can adapt and evaluate.

3. Context of practice

The model was developed in the Department of Foreign Languages at the Samarkand campus of a private university in Uzbekistan. The department teaches compulsory English courses (grammar and vocabulary, reading and writing, speaking and listening) to first-year undergraduates. Groups are mixed in ability, typically ranging from beginner to upper-intermediate within a nominal B1 course, and the university had no written policy on staff use of GenAI. As in many institutions, colleagues had encountered GenAI mainly through informal use, typically by asking short, general questions. These conditions (compulsory English, mixed-ability groups and no institutional AI policy) are shared by many higher education institutions beyond Uzbekistan.

4. A peer-led model for GenAI professional development

4.1 Design principles

The model rests on four principles, each linked to gaps identified in the literature.

1. **Teachers' own lessons, not generic demonstrations.** Every activity uses a lesson that the participant actually has to teach next. The output is immediately usable, so the time invested in learning pays off at once.

2. **Same syllabus, same students.** Because the trainer teaches the same courses, examples come from shared materials and familiar learner difficulties. This provides the tailored, context-specific support that university language instructors say they need (Kohnke, Moorhouse, & Zou, 2023b).

3. **Judgement before speed.** Every session treats AI output as a first draft and gives as much time to checking and adapting output as to generating it. This reflects the human-centred mindset and ethics dimensions of the UNESCO framework (Miao & Cukurova, 2024).

4. **Support beyond the sessions.** Prompts, examples and corrected outputs are shared between colleagues after the workshop, so learning continues as teachers meet new tasks.

4.2 Workshop structure

The workshop consists of five sessions. Each follows a "see it, try it, share it" pattern: a live demonstration on a real lesson from the syllabus, guided practice on participants' own upcoming lessons, and a short discussion of the results (Table 1).

Table 1. Structure of the peer-led workshop

Session	Focus	Example task
1	What GenAI can and cannot do; choosing a tool	Compare two tools' answers to the same request; spot an error
2	Writing effective prompts for lesson materials	Turn "make a reading text" into a prompt specifying CEFR level, topic, length, target vocabulary and task types
3	Differentiation for mixed-ability groups	Produce one text with tasks at different levels of support for the same group
4	Checking and adapting AI output	Edit an AI-generated worksheet for accuracy, naturalness and local cultural fit
5	Matching slides, worksheets and audio	Build a lesson whose slides match the printable worksheet, plus a scripted listening dialogue

The sessions are deliberately tool-independent: participants use whichever GenAI tool they can access, and the activities work with free versions.

5. The Plan – Prompt – Check – Adapt - Reflect cycle

At the centre of the model is a five-step cycle that teachers follow for each lesson. It keeps the teacher's pedagogical decisions first and last, with AI in the middle as a drafting tool.

1. **Plan.** Decide the lesson aim, the CEFR level, the skills and the needs of the weakest and strongest learners before opening any AI tool.

2. **Prompt.** Give the tool a clear role, the level, topic, length, target language and task types, and ask for differentiated versions.

3. **Check.** Verify facts, language level, naturalness, answer keys and cultural fit. Treat every output as a first draft.

4. **Adapt.** Localise names and contexts, align slides with worksheets, and add the teacher's own knowledge of the group.

5. **Reflect.** After teaching, note what worked and refine the prompt for next time, building a personal or departmental prompt library.

5.1 From a weak to a strong prompt

The Prompt step is where teacher knowledge becomes visible. A typical first request is short and general, for example: "Make a reading text about climate change for my students." A stronger prompt for the same lesson reads:

You are an experienced EFL materials writer. Write a 300-word reading text for first-year university students at CEFR B1 about how climate change affects farming in Central Asia. Use mostly B1 vocabulary but include these six target words: drought, irrigation, yield, sustainable, shortage, adapt. Then create: (1) five true/false questions; (2) a matching task for the target words; (3) three discussion questions in two versions, one with sentence starters for less confident learners and one open-ended for stronger learners. Use local names and places. Add an answer key.

Table 2 shows that each element of the strong prompt encodes a decision that only the teacher can make.

Table 2. Elements of an effective lesson-materials prompt and the teacher knowledge behind them

Prompt element	Example	Teacher knowledge drawn on
Role	"experienced EFL materials writer"	Awareness of how GenAI responds to framing
Learners and level	"first-year university students at CEFR B1"	Knowledge of the group and of the CEFR
Topic and context	"farming in Central Asia"	Learners' interests and local relevance
Length and genre	"300-word reading text"	Lesson timing and reading skills aims
Target language	six named words	Syllabus and vocabulary selection
Task types	true/false, matching, discussion	Task design and skills sequencing
Differentiation	two versions of discussion questions	Mixed-ability classroom management
Output format	"Add an answer key"	Practical classroom use

5.2 Checking AI output

The Check step uses a short list that teachers can apply in a few minutes (Table 3).

Table 3. Quality-check list for AI-generated lesson materials

Criterion	Questions to ask
Accuracy	Are facts, dates and names correct? Is the answer key right?
Level	Do vocabulary and grammar match the target level? Is new language chosen deliberately?
Naturalness	Does the language sound like real English, without awkward collocations?
Cultural fit	Are names, settings and references meaningful to these learners? Are there stereotypes?
Pedagogical fit	Do the tasks serve the lesson aim? Are instructions clear at the learners' level?
Consistency	Do slides, worksheet and audio script match each other?

6. Reflections from practice

6.1 From search engine to planning partner

In the author's experience of leading the workshop, the most visible change was in how colleagues wrote prompts. Early requests tended to be short and general; in later sessions, prompts

increasingly named the level, the target vocabulary and the task types. This is consistent with the argument that effective use of GenAI depends on combining technological skill with pedagogical and content knowledge (Mishra et al., 2023). A good prompt is, in effect, a compressed lesson plan: teachers who write better prompts are making explicit knowledge they already have as language teachers.

6.2 Differentiation as the main gain

Time savings are the benefit most often reported in the literature (Namdari et al., 2025; Setyaningsih et al., 2024). In a mixed-ability context, however, the greater gain may be **differentiation**. Preparing three versions of the same task by hand is rarely realistic for a teacher with several groups; with GenAI it becomes routine. This is a concrete way in which AI can make lessons more inclusive, not just faster to prepare.

6.3 The draft is never the final version

AI drafts produced during the workshop regularly needed correction. Typical problems included vocabulary above the target level, unnatural phrasing, errors in answer keys and settings unfamiliar to Uzbek learners. These are the same kinds of problems reported in other contexts (Fazilova & Kayip, 2025; Setyaningsih et al., 2024). Cultural mismatch deserves particular attention: default outputs tend to assume Western names and references, which may distance learners rather than engage them. For this reason, the Check and Adapt steps received as much workshop time as the Prompt step.

6.4 Challenges

Three challenges stood out. First, learning to prompt well takes time, and some colleagues were initially sceptical that the effort would pay off. Second, teachers raised concerns about becoming dependent on AI and about students using the same tools to complete their own work. Third, without an institutional policy, questions about acceptable use had to be answered informally. The peer-led format also has a limitation of its own: its quality depends heavily on the experience and availability of the lead teacher.

6.5 Transferability

The model is offered not as a proven solution but as a design that others can adapt. Three conditions seem central to its relevance. Where classes are large and mixed in ability, the main benefit of GenAI may be differentiation rather than speed alone. Where institutions have no AI policy, teachers' critical judgement becomes the main safeguard of quality, so training should prioritise checking and adapting over tool features. Where budgets for external training are limited, a peer-led model can build competence from within. These conditions are likely to be shared by many institutions in other regions, and the cycle's tool-independence means it should remain useful as specific GenAI products change.

7. Conclusion

This paper has described a peer-led model for developing EFL teachers' GenAI competence in a context without institutional AI policy or external expertise. Its core contribution is practical: four design principles, a five-session workshop and a Plan–Prompt–Check–Adapt–Reflect cycle supported by a model prompt and a quality-check list. For the many systems where national AI ambitions run ahead of teacher preparation, peer-led professional development offers a realistic, low-cost starting point.

As a practice-based account, the paper does not report systematic empirical data, and its reflections are those of the author as designer and trainer. Future research should evaluate the model empirically, for example through pre- and post-workshop surveys, comparison of AI drafts

with teacher-edited materials, and interviews across several institutions, and should examine its effects on learners.

Recommendations

- **For institutions and policymakers:** develop clear guidelines on staff and student use of GenAI, and recognise peer-led AI training as part of professional development.
- **For teacher educators:** include prompt writing, output evaluation and cultural adaptation of AI materials in pre-service and in-service programmes.
- **For teachers:** use a systematic, tool-independent cycle such as Plan–Prompt–Check–Adapt–Reflect, and share effective prompts with colleagues.
- **For researchers:** evaluate peer-led models across institutions and countries, compare them with expert-led training, and examine effects on learners' outcomes.

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