

Using Digital Tools and Smart Technologies in The Methodological Training of The Linguist-Teacher

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Abstract: The rapid development of digital technologies and artificial intelligence is transforming the professional requirements placed on contemporary language teachers. The linguist-teacher is increasingly expected to combine linguistic and pedagogical knowledge with digital competence, reflective practice, autonomous professional learning and the ability to critically evaluate emerging technologies. This article investigates the role of digital tools and Smart technologies in the methodological preparation of future English language teachers and examines their potential to establish continuity between pre-service teacher education and Continuous Professional Development (CPD). Particular attention is paid to artificial intelligence, digital learning environments, online collaboration, digital assessment, electronic portfolios and reflective technologies. The study employs a qualitative analytical approach based on recent research and international frameworks of teacher digital competence, together with an analysis of the PRESETT experience in Uzbekistan. The findings indicate that purposeful integration of Smart technologies can support lesson planning, microteaching, assessment, reflection, collaboration and autonomous professional learning. The study also highlights the relevance of the PRESETT reform experience and the professional-development perspective associated with Rod Bolitho, particularly in relation to reflective practice, teacher participation and curriculum-based professional development. The article proposes a conceptual model linking PRESETT, digital methodological competence and CPD. The model positions digital technologies not as an end in themselves but as instruments for developing teachers' methodological autonomy and lifelong professional learning.

Keywords: Digital technologies; Smart technologies; linguist-teacher; methodological competence; digital competence; artificial intelligence; PRESETT; CPD; English language teaching; teacher education.

1. Introduction: The digital transformation of education has significantly changed the knowledge, skills and professional dispositions required of contemporary teachers. In English language education, this transformation is particularly visible because language teaching increasingly takes place across physical, virtual and hybrid learning environments. Learning management systems, interactive platforms, digital corpora, multimedia resources, online assessment systems and generative artificial intelligence (AI) have become increasingly accessible to both teachers and learners. Consequently, the methodological preparation of future linguist-teachers needs to respond not only to developments in language

pedagogy but also to the changing technological environment in which teaching takes place. The European Framework for the Digital Competence of Educators (DigCompEdu) provides an important conceptual basis for understanding this transformation. The framework identifies 22 competences organised into six areas: professional engagement, digital resources, teaching and learning, assessment, empowering learners, and facilitating learners' digital competence. Importantly, DigCompEdu does not conceptualise digital competence as purely technical proficiency; it emphasises the pedagogical use of technologies to enhance and innovate education. The development of digital competence is closely connected

with Continuous Professional Development (CPD).

In contemporary teacher education, CPD should be understood as an ongoing process through which teachers analyse their professional practice, identify developmental needs, acquire new knowledge, experiment with innovative approaches and reflect on the results. Digital environments significantly expand the opportunities available for such professional learning. Teachers can participate in webinars, online communities of practice, digital courses, collaborative projects and self-directed learning activities without being restricted by geographical or institutional boundaries. This relationship between initial teacher education and CPD is especially relevant to the experience of English language teacher education in Uzbekistan. The earlier PRESETT curriculum reform was introduced in the institutions responsible for preparing English language teachers and was designed to strengthen the quality of future teachers' language and methodological preparation. The British Council reports that the PRESETT curriculum was adopted across the relevant universities from 2013 and was accompanied by teacher training, curriculum development, assessment reform and professional-development activities. The longer-term significance of the reform was not limited to the students studying on the programme. The professional development of university teachers involved in implementing the curriculum was also regarded as an important condition for creating a culture of career-long CPD among future teachers. These developments demonstrate that the integration of digital technologies into teacher education is not an isolated technological issue. It is part of a wider transformation involving curriculum reform, methodological competence, reflection and professional development. At the same time, an important research gap remains. Much of the discussion surrounding educational technology focuses on the effectiveness of particular applications or on students' learning outcomes. Less attention has been paid to how digital and Smart technologies can be systematically integrated into the methodological preparation of the linguist-teacher as a foundation for subsequent CPD. This issue becomes particularly important in the context of generative AI.

Recent research confirms that language teachers require explicit preparation for responsible and

pedagogically meaningful use of AI. An intervention study involving pre-service language teachers found that an 11-week course focused on generative AI improved several dimensions of professional GenAI competence, particularly pedagogical competence and critical awareness. Other research has found differences between beginning and first-year language teachers in their readiness to use generative AI, indicating that teacher education and professional development need to address AI competence systematically rather than assuming that teachers will acquire it independently.

Therefore, the present study addresses the following research questions:

1. How can digital and Smart technologies contribute to the methodological preparation of future linguist-teachers?
2. What methodological competences can be developed through purposeful integration of digital technologies and AI?
3. How can digital methodological preparation establish continuity between PRESETT and CPD?
4. What principles should guide the responsible and pedagogically justified use of Smart technologies in English language teacher education?

2. THEORETICAL FRAMEWORK

2.1. Digital competence as a component of methodological competence

Digital competence should not be considered an independent technological addition to teacher competence. For the linguist-teacher, it intersects with language knowledge, pedagogical knowledge, assessment competence, classroom management and reflective practice. DigCompEdu explicitly distinguishes between the ability to use digital tools and the ability to use them pedagogically. Its framework includes digital resource selection, digital teaching, collaborative learning, assessment, differentiation, self-regulated learning and digital Continuous Professional Development. This approach is particularly relevant to language teacher education. A future English teacher does not simply need to know how to operate a presentation platform or AI application. The teacher needs to decide:

- whether a digital resource is appropriate for a

particular learning objective;

- whether it corresponds to learners' proficiency levels;
- whether it promotes communication rather than passive consumption;
- how it can be integrated into a lesson sequence;
- how learning outcomes can be assessed;
- how the technology affects learner autonomy and interaction.

Thus, digital methodological competence can be defined as the ability to select, adapt, integrate, evaluate and reflect upon digital technologies in accordance with linguistic, pedagogical and contextual objectives.

2.2. CPD and reflective professional learning

The CPD perspective provides the second theoretical dimension of the study. Professional development should not be reduced to participation in formal training. It involves an ongoing cycle of identifying professional needs, acquiring knowledge, applying new practices, evaluating their effectiveness and modifying future practice. Digital technologies can facilitate each stage of this cycle. A teacher can identify professional needs through self-assessment, obtain resources through online professional communities, experiment with new digital approaches, collect evidence of classroom performance and reflect on the results through a digital portfolio. The implication for digital education is significant: curriculum innovation can become a vehicle for teacher development when teachers are not merely instructed to implement new technologies but are involved in analysing, adapting and reflecting upon new practices.

3. METHODOLOGY

The study employed a qualitative conceptual-analysis design. It examined recent academic research, international frameworks and professional-development documentation concerning digital competence, artificial intelligence, language teacher education, PRESETT and CPD. The source base included international frameworks of educator digital competence, recent studies of AI in language teacher education and research on beginning and pre-service teachers' readiness for generative AI.

The analysis was organised around five methodological

functions of digital technologies:

1. planning and instructional design;
2. teaching and microteaching;
3. assessment and feedback;
4. reflection and professional self-development;
5. collaboration and CPD.

The purpose was not to measure the effectiveness of one particular digital platform but to develop a conceptual model explaining how different categories of technologies can contribute to the methodological preparation of linguist-teachers.

4. RESULTS

4.1. Digital technologies in lesson planning

The first area in which digital technologies can strengthen methodological preparation is instructional planning. Future teachers can use digital libraries, online corpora, authentic multimedia resources, electronic textbooks and AI-assisted applications to identify and adapt language material. Such activities can be incorporated into methodology courses through practical assignments in which students must justify why a particular digital resource is appropriate for a particular group of learners.

For example, instead of simply asking student-teachers to create a vocabulary lesson, a methodology instructor can require them to:

1. identify a learning objective;
2. select an appropriate digital resource;
3. evaluate its linguistic and pedagogical suitability;
4. adapt the material to a specified CEFR level;
5. design learner interaction;
6. create formative assessment;
7. reflect on possible limitations.

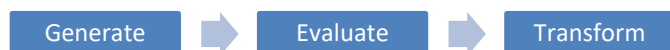
This process transforms technology use into methodological decision-making.

4.2. Artificial intelligence and teacher preparation

Generative AI represents a particularly important new dimension of methodological training. AI can assist future teachers in generating lesson ideas, adapting texts, creating vocabulary activities, developing differentiated tasks and producing preliminary

assessment materials. However, these possibilities also create a need for critical evaluation. Research on pre-service language teachers demonstrates that explicit instruction can improve teachers' professional GenAI competence, although some dimensions—such as the ability to guide learners towards effective and responsible AI use—may require additional training.

Therefore, AI-related teacher preparation should involve three interconnected stages:



The student-teacher first uses AI to generate a preliminary resource. The second stage involves critically evaluating its linguistic accuracy, level appropriateness, cultural relevance, originality and pedagogical value. The third stage requires transforming the material into a teacher-designed activity aligned with specific learning outcomes. This process prevents AI from replacing methodological thinking and instead makes it an object of methodological analysis.

4.3. Digital microteaching and reflective practice

Digital recording can significantly strengthen microteaching. Student-teachers can record short teaching sessions and analyse their own performance with the help of structured observation criteria.

They may examine:

- teacher talk;
- questioning techniques;
- instructions;
- wait time;
- learner participation;
- interaction patterns;
- use of target language;
- feedback;
- use of digital resources.

Peer feedback can then be incorporated through

collaborative digital platforms. This approach is consistent with the reflective dimension of DigCompEdu, which emphasises the critical assessment and development of teachers' own digital pedagogical practice.

4.4. Smart assessment and learning analytics

Smart technologies can also transform the preparation of teachers for assessment. Interactive quizzes, electronic portfolios, automated feedback systems and learning analytics allow student-teachers to examine evidence of learning and make subsequent instructional decisions. For example, a future teacher may analyse the results of an online vocabulary test and determine that learners have difficulty distinguishing between collocations rather than individual lexical items. The teacher can then redesign the following lesson around contextualised collocation practice. In this model, technology does not replace teacher judgement. Instead, it provides additional evidence on which methodological decisions can be based.

4.5. Digital portfolios as a mechanism for CPD

A particularly promising instrument is the digital professional portfolio. At the pre-service stage, the portfolio can contain:

- lesson plans;
- teaching materials;
- microteaching recordings;
- reflective journals;
- peer feedback;
- assessment tasks;
- classroom research;
- certificates from online courses;
- evidence of participation in professional communities.

After graduation, the same portfolio can be extended with classroom observations, action research, CPD activities and evidence of methodological innovation.

This creates a continuous professional trajectory:



4.6. Online collaboration and communities of practice

Digital technologies also make professional collaboration more accessible. Online communities of practice can connect student-teachers, university instructors, school teachers and international experts. This development is particularly important because professional learning becomes more sustainable when teachers can exchange experience rather than depend exclusively on formal training events.

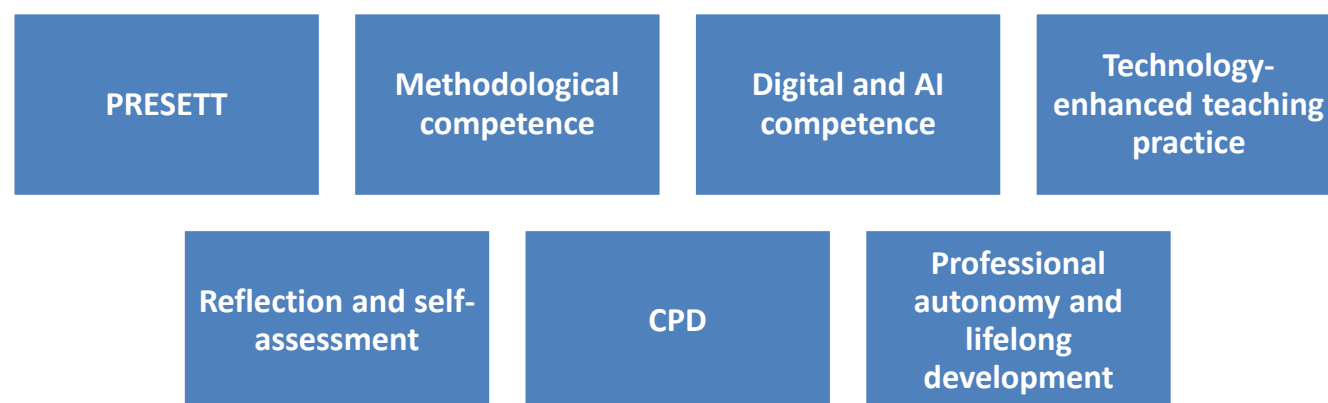
5. DISCUSSION

The results indicate that digitalization of teacher education should be approached as a methodological transformation rather than a technological upgrade. Simply providing future teachers with access to digital platforms does not guarantee the development of digital methodological competence. The central issue is the quality of pedagogical decision-making surrounding technology. This distinction becomes particularly

important with generative AI. Research involving teacher educators has shown that AI is expected to influence initial language teacher education, including curriculum, instruction and assessment, while teacher educators themselves may require additional confidence and competence to address these changes. Therefore, teacher education institutions need to develop not only students' digital competence but also the digital competence of teacher educators.

The role of the teacher consequently changes from being primarily a transmitter of information to becoming a designer, evaluator, facilitator and reflective user of technology. This development can be understood through the relationship among PRESETT, digital competence and CPD.

Proposed conceptual model



This model suggests that digital competence should be developed from the earliest stages of teacher preparation and subsequently reinforced through CPD.

The model also provides a contemporary interpretation of the professional-development logic associated with the Uzbekistan PRESETT experience and Rod Bolitho's contribution to curriculum-based professional development. Curriculum innovation becomes

sustainable when teachers develop the capacity to reflect on and adapt innovation rather than simply implement externally designed procedures.

Scientific Novelty

The study identifies three major gaps in existing approaches. First, digital competence is often treated as a separate competence rather than as a component of methodological competence. Second, research on AI

frequently focuses on learner outcomes or individual applications, while less attention is given to the systematic preparation of language teachers to make pedagogically justified decisions about AI. Third, the relationship between pre-service teacher education, digital competence and CPD remains insufficiently conceptualised in the context of English language teacher education in Uzbekistan. The scientific novelty of the present study is therefore the proposed conceptual integration of these dimensions. The article introduces the concept of digital methodological

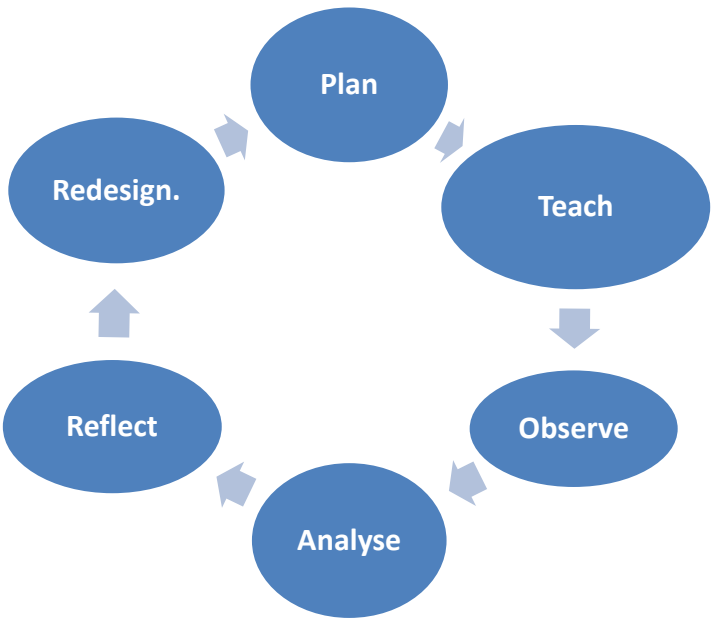
competence of the linguist-teacher, understood as the capacity to integrate digital and Smart technologies into language teaching through informed pedagogical decision-making, critical evaluation, reflection and continuous professional learning.

7. PRACTICAL IMPLICATIONS

The proposed model can be implemented in methodology courses for future English language teachers through a sequence of technology-enhanced activities.

Methodological area	Digital/Smart technology	Competence developed
Lesson planning	AI, digital repositories, online corpora	Instructional design
Microteaching	Video recording, digital observation	Reflective competence
Assessment	Interactive quizzes, analytics	Assessment competence
Materials development	AI and multimedia tools	Creative methodological competence
Collaboration	Online communities, shared platforms	Professional collaboration
Reflection	Digital portfolios, self-assessment	Autonomous development
CPD	Webinars, MOOCs, professional networks	Lifelong learning
Research	Digital data collection and analysis	Research competence

Teacher educators can therefore redesign methodology courses so that students repeatedly move through the cycle:



Digital technologies can be integrated at every stage of this cycle.

8. ETHICAL AND METHODOLOGICAL CONSIDERATIONS

The integration of AI and other Smart technologies also requires attention to ethical issues. UNESCO emphasises a human-centred approach to generative AI in education, including concerns related to privacy, safety, equity, ethical validation and pedagogical design.

Future teachers should therefore be prepared to consider:

- reliability of AI-generated information;
- protection of personal data;
- copyright and attribution;
- academic integrity;
- bias and cultural representation;
- learner dependence on automated tools;
- unequal access to advanced technologies.

These issues demonstrate why technological competence cannot be separated from professional responsibility. A digitally competent linguist-teacher should be able to ask not only “Can I use this tool?” but also “Should I use it, for what purpose, and how will it influence learning?”

9. CONCLUSION

The integration of digital tools and Smart technologies into the methodological preparation of linguist-teachers is becoming an essential dimension of contemporary English language teacher education. The increasing availability of AI, digital learning environments, online collaboration platforms, digital assessment and multimedia resources creates new opportunities for developing teachers' methodological, reflective and professional competences.

The analysis demonstrates that the most productive approach is not technology-centred but pedagogy-centred technology integration. Future teachers should learn to select, adapt, evaluate and critically use technologies according to learning objectives, learner needs and educational context. The relationship between PRESETT and CPD is particularly significant in this process. The Uzbekistan experience demonstrates how curriculum reform can contribute to teacher development and create conditions for longer-term

professional learning. The current AELLCA programme further strengthens this connection by explicitly linking PRESETT modernisation with CPD, reflection, professional communities and digital innovation. The contribution associated with Rod Bolitho and the documented Uzbekistan curriculum-reform experience provides an important professional-development perspective: sustainable innovation depends not only on changing curricula but also on developing teachers who can reflect on, adapt and extend those innovations.

The ultimate objective is not to produce teachers who simply know how to use more digital tools. It is to prepare reflective, autonomous and digitally competent linguist-teachers who can make informed methodological decisions and continue developing professionally throughout their careers.

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