METHODOLOGICAL PERSPECTIVES ON THE USE OF COMPUTER LINGUO-DIDACTICS IN TEACHER PROFESSIONAL DEVELOPMENT

Baxtibaeva Nawbaxar
2nd-year Master's student in Astana International University
Faculty of Two foreign languages, English language
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Abstract

The digitalization of education has significantly transformed the professional development of foreign language teachers, requiring methodological innovations that integrate computer linguo-didactics. This paper explores methodological perspectives on employing digital linguo-didactic tools to enhance communicative and didactic competence in teacher training. Drawing on theoretical frameworks and empirical evidence from a small-scale survey of practicing teachers, the study analyzes the benefits, challenges, and methodological implications of using computer-based approaches in professional development. Findings demonstrate that the integration of digital resources fosters flexibility, learner-centered strategies, and intercultural awareness, while also raising concerns regarding methodological consistency and academic quality. The study concludes with recommendations for systematic incorporation of computer linguo-didactics into teacher education programs.

Introduction

Foreign language teachers today face new challenges arising from rapid technological progress and the globalization of communication. Professional development is no longer limited to mastering traditional methods; it increasingly depends on teachers' ability to effectively use computer-based resources and linguo-didactic technologies. This necessity has sparked growing interest in the methodological aspects of integrating computer linguo-didactics into teacher education.

The relevance of the topic lies in the fact that while numerous studies highlight the benefits of digital tools in language learning, relatively little attention has been given to methodological perspectives—how these tools should be systematically applied to ensure sustainable competence development. This study aims to examine methodological foundations for using computer linguo-didactics in the professional development of foreign language teachers, with particular focus on communicative and didactic skills.

The research objectives are:

1. To define the methodological role of computer linguo-didactics in teacher education.

2. To analyze strategies for integrating digital tools into professional development programs.

3. To evaluate teachers' perceptions of the effectiveness of such methods.

Theoretical Background

Professional development of teachers is grounded in methodological principles that ensure coherence between theory and practice. The competence-based approach, widely discussed by Hymes Canale & Swain , and Byram , emphasizes communicative and intercultural competence as key outcomes. In recent decades, pedagogical scholarship has also embraced digital methodologies, reflecting the influence of computer-assisted language learning (CALL) and computer linguo-didactics.

Computer linguo-didactics can be defined as a methodological field that studies how digital technologies facilitate the teaching and learning of languages through systematic application of linguo-didactic principles. Scholars such as Levy & Stockwell and Warschauer underline that digital platforms support authentic communication, learner autonomy, and multimodal input, all of which contribute to competence development

However, methodological challenges persist. These include the risk of excessive technological focus at the expense of pedagogical goals, difficulties in assessing learning outcomes in digital environments, and the need for teacher training programs to balance innovation with didactic rigor. Thus, the integration of computer linguo-didactics into teacher professional development requires careful methodological design. Current theoretical discussions highlight several key principles relevant to teacher professional development:

- **Constructivist orientation** – digital tools support interactive and collaborative learning environments where teachers act as facilitators rather than transmitters of knowledge.

- **Competence-based methodology** – the focus is on practical skills such as communication, problem-solving, and intercultural awareness rather than rote knowledge.

- **Blended learning model** – combining face-to-face training with online platforms provides teachers with both flexibility and methodological diversity.

- **Reflective practice** – teachers must not only use digital tools but also critically evaluate their methodological effectiveness.

Thus, the theoretical background suggests that computer linguo-didactics offers a methodological framework that aligns with modern educational priorities: learner-centeredness, intercultural dialogue, and digital literacy.

Methodology

This study employed a mixed-method design, combining theoretical analysis with a small-scale empirical survey.

1. Theoretical analysis

Relevant literature on computer linguo-didactics, teacher training methodologies, and CALL was systematically reviewed. Sources included foundational works in communicative competence (Hymes, Canale & Swain), intercultural competence (Byram), and methodological studies on digital language pedagogy (Chapelle, Levy & Stockwell, Warschauer). The purpose was to identify recurring methodological principles and trends.

2. Empirical survey

- **Participants**: 12 English language teachers (7 from secondary schools, 5 from universities). Teaching experience ranged from 2 to 15 years.

- **Instrument**: A structured questionnaire with 15 questions divided into three blocks: (1) awareness and use of computer linguo-didactic tools, (2) perceived benefits for professional development, (3) methodological challenges. Semi-structured interviews were also conducted with 4 participants to gather deeper insights.

- **Procedure**: The survey was distributed online via Google Forms, and interviews were conducted on Zoom. Participation was voluntary.

- **Data analysis**: Quantitative responses were processed using descriptive statistics (percentages, frequency counts), while qualitative responses were thematically analyzed to identify methodological patterns.

3.Research focus

The methodological perspective was central: rather than testing the efficiency of specific digital tools, the study explored *how* teachers perceive, integrate, and evaluate these tools in their professional development. This methodological lens provides insights into both opportunities and gaps.
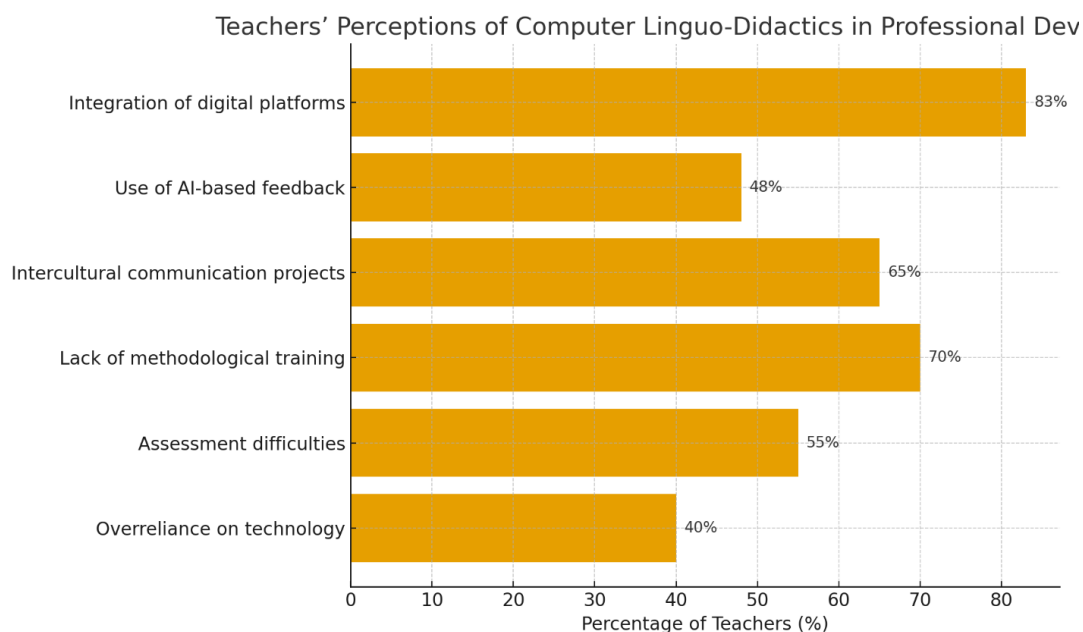
Results

The findings revealed several methodological trends and implications:

Positive methodological outcomes:

• **Integration of digital platforms**: 83% of teachers reported using platforms like Moodle, Google Classroom, or MS Teams not only as organizational tools but also as didactic environments where they practiced designing tasks aligned with communicative methodology.

• **AI-based feedback**: Nearly half of the participants experimented with AI-powered tools such as automated writing evaluators or chatbots. Teachers emphasized that these tools enhanced their methodological repertoire, enabling them to provide individualized, immediate feedback—an essential element of effective didactic practice.

• **Intercultural communication**: Teachers noted that online exchanges (e.g., email projects, collaborative forums with international peers) were particularly valuable for developing intercultural competence, as predicted by Byram's model.

Methodological challenges identified:

• **Lack of methodological training**: 70% of teachers admitted they had no formal training in computer linguo-didactics. They often learned to use tools through trial and error, leading to inconsistencies in methodology.

• **Assessment difficulties**: Several teachers expressed uncertainty about evaluating communicative outcomes in online contexts. Traditional tests seemed insufficient to capture digital learning progress.

• **Overreliance on technology**: Some participants warned against "technological determinism," where teachers equate tool usage with methodological effectiveness, neglecting pedagogical aims.

Teachers' Perceptions of Computer Linguo-Didactics in Professional Dev

Discussion:

The results confirm that computer linguo-didactics provides a powerful methodological resource for teacher professional development, but its potential is not fully realized due to the absence of systematic frameworks. Teachers who combine digital tools with established didactic strategies demonstrate higher levels of creativity and competence. However, without structured methodological guidance, teachers risk either underusing or misusing technology.

This aligns with Chapelle's warning that CALL should not be treated as a technological fix but as a pedagogical approach requiring theoretical grounding. The findings also echo Safonova, who stressed the importance of methodological reflection in intercultural contexts.

Overall, the discussion suggests that future professional development programs must address these gaps by offering targeted training in computer linguo-didactics, developing clear assessment tools for digital environments, and promoting reflective methodological practice.

Conclusion

The study demonstrates that computer linguo-didactics represents a vital methodological direction in the professional development of foreign language teachers. Its application supports the enhancement of communicative competence, didactic creativity, and intercultural awareness, making teacher education more relevant to the realities of digital communication.

At the same time, the findings reveal methodological gaps. Teachers often rely on personal experimentation rather than structured methodological frameworks, which can lead to inconsistency in outcomes. To address this, teacher education programs should:

- Incorporate formal training in computer linguo-didactic methodology.
- Develop clear guidelines for integrating digital tools into professional development.
- Encourage reflective practice and collaboration among teachers to share digital teaching strategies.

Future research should expand the scope of participants, employ mixed methods, and test specific methodological models of integrating computer linguo-didactics in diverse educational contexts. By systematizing the methodological use of digital resources, teacher training can ensure sustainable competence development in an era of rapid technological change.

Adabiyotlar, References, Литературы:

1.   Hymes D. On Communicative Competence. – London: Penguin, 1972. – 269 p.
2.   Canale M., Swain M. Theoretical Bases of Communicative Approaches to Second Language Teaching and Testing // Applied Linguistics. – 1980. – Vol. 1. – P. 1–47.
3.   Byram M. Teaching and Assessing Intercultural Communicative Competence. – Clevedon: Multilingual Matters, 1997. – 124 p.
4.   Safonova V. V. Learning Languages of International Communication in the Context of Dialogue of Cultures and Civilizations. – Voronezh: Voronezh University Press, 1996. – 237 p.
5.   Zimnia I. A. Lingvokulturnaya kompetenciya kak novoe kachestvo rezultata obrazovaniya // Inostrannye yazyki v shkole. – 2004. – № 5. – S. 3–9.
6.   Warschauer M. Technology and Social Inclusion: Rethinking the Digital Divide. – Cambridge, MA: MIT Press, 2003. – 284 p.
7.   Levy M., Stockwell G. CALL Dimensions: Options and Issues in Computer-Assisted Language Learning. – Mahwah, NJ: Lawrence Erlbaum, 2006. – 320 p.
8.   Chapelle C. A. Computer Applications in Second Language Acquisition. – Cambridge: Cambridge University Press, 2001. – 232 p.