



Developing the media competence of future english language teachers through artificial intelligence tools

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Annotation. The rapid advancement of digital technologies and artificial intelligence (AI) has fundamentally transformed the educational landscape, particularly in the field of language teacher preparation. This article examines the role of artificial intelligence tools in developing media competence among future English language teachers in higher education institutions of Uzbekistan. The study draws on theoretical frameworks of media literacy, digital pedagogy, and competence-based education to analyze how AI-powered platforms – including ChatGPT, Grammarly, DeepL, and multimedia generation tools – can be systematically integrated into teacher training curricula. Using a mixed-methods approach encompassing surveys, lesson observations, and reflective journals from 120 pre-service English teachers at Fergana State University, the research identifies key dimensions of media competence and proposes a pedagogical model for its development. Findings indicate that AI tool integration significantly enhances students' ability to critically evaluate digital media content, produce multimodal teaching materials, and adapt authentic media resources for language learning contexts.

Keywords: media competence, artificial intelligence tools, English language teacher education, digital literacy, AI in education, multimodal literacy, pre-service teachers, media literacy development.

Развитие медиакомпетентности будущих учителей английского языка с помощью инструментов искусственного интеллекта

Аннотация. Стремительное развитие цифровых технологий и искусственного интеллекта (ИИ) кардинально трансформирует образовательную среду, особенно сферу подготовки учителей иностранных языков. В данной статье рассматривается роль инструментов искусственного интеллекта в развитии медиакомпетентности будущих учителей английского языка в высших учебных заведениях Узбекистана. Исследование опирается на теоретические основы медиаграмотности, цифровой педагогики и компетентностного подхода в образовании для анализа возможностей системной интеграции таких ИИ-платформ, как ChatGPT, Grammarly, DeepL и инструменты мультимедийного контент-мейкинга, в программы подготовки педагогических кадров. В исследовании использован смешанный метод, включающий анкетирование, наблюдение за учебными занятиями и анализ рефлексивных дневников 120

студентов – будущих учителей английского языка Ферганского государственного университета. На основе полученных данных определены ключевые компоненты медиакомпетентности и предложена педагогическая модель её развития.

Ключевые слова: медиакомпетентность, инструменты искусственного интеллекта, подготовка учителей английского языка, цифровая грамотность, искусственный интеллект в образовании.

Sun'iy intellekt vositalari yordamida bo'lajak ingliz tili o'qituvchilarining mediakompetentligini rivojlantirish

Annotatsiya. Raqamli texnologiyalar va sun'iy intellekt (SI)ning jadal rivojlanishi ta'lim tizimini, ayniqsa, til o'qituvchilarini tayyorlash sohasini tubdan o'zgartirmoqda. Ushbu maqolada O'zbekiston oliy ta'lim muassasalarida bo'lajak ingliz tili o'qituvchilarining mediakompetentligini rivojlantirishda sun'iy intellekt vositalarining o'rni tahlil qilinadi. Tadqiqot media savodxonlik, raqamli pedagogika va kompetensiyaviy ta'limning nazariy asoslariga tayangan holda, ChatGPT, Grammarly, DeepL hamda multimedia yaratish vositalari kabi SI platformalarini o'qituvchilar tayyorlash dasturlariga tizimli ravishda integratsiya qilish imkoniyatlarini o'rganadi. Tadqiqotda Farg'ona davlat universitetining 120 nafar bo'lajak ingliz tili o'qituvchilari ishtirokida o'tkazilgan so'rovnomalar, dars kuzatuvlari va reflektiv kundaliklar ma'lumotlari asosida aralash metodologiya qo'llanildi. Natijalar mediakompetentlikning asosiy tarkibiy qismlarini aniqlash hamda uni rivojlantirishga qaratilgan pedagogik modelni ishlab chiqish imkonini berdi. Tadqiqot natijalari sun'iy intellekt vositalaridan foydalanish talabalarining raqamli media kontentini tanqidiy baholash, multimodal o'quv materiallarini yaratish va autentik media resurslarini chet tilini o'qitish jarayoniga moslashtirish ko'nikmalarini sezilarli darajada rivojlantirishini ko'rsatdi.

Kalit so'zlar: mediakompetentlik, sun'iy intellekt vositalari, ingliz tili o'qituvchilarini tayyorlash, raqamli savodxonlik, ta'limda sun'iy intellekt, multimodal savodxonlik, bo'lajak o'qituvchilar, media savodxonligini rivojlantirish.

INTRODUCTION

The twenty-first century has ushered in an era defined by unprecedented access to digital information and media. In this context, media competence – the ability to access, analyze, evaluate, create, and communicate information across various media formats – has become an indispensable skill for educators, and particularly for language teachers [1]. English language teachers occupy a unique position in this digital ecosystem: they are simultaneously expected to teach linguistic proficiency and to model responsible, critical engagement with the media-saturated environments through which much contemporary communication occurs.

Uzbekistan, like many rapidly developing nations, has embraced the digitalization of education as a national priority. Presidential Decree No. PD-5953 and the National Strategy for Further Development of Education outline specific objectives for incorporating digital competences into teacher preparation. Within this national context, the integration of artificial intelligence tools into pedagogical training represents both an opportunity and an imperative. AI tools are increasingly accessible, sophisticated, and educationally relevant; yet their systematic incorporation into media competence development for English language teacher candidates remains underexplored in the Central Asian academic literature.

This article investigates how AI-powered tools can be used to cultivate the media competence of future English language teachers. Specifically, it addresses the following

research questions: (1) What dimensions of media competence are most relevant for pre-service English language teachers? (2) In what ways can AI tools be integrated into teacher education curricula to develop these competencies? (3) What pedagogical outcomes are associated with AI-enhanced media competence instruction?

LITERATURE REVIEW AND METHODOLOGY

Media literacy and media competence have been conceptualized in various ways across the scholarly literature. Aufderheide provided one of the earliest comprehensive definitions, framing media literacy as the ability to access, analyze, evaluate, and produce media. This foundational model was later expanded by scholars such as Livingstone and Potter to encompass the digital dimensions increasingly central to contemporary communication. Hobbs and Jensen emphasized the importance of media literacy education in teacher preparation, arguing that educators who lack media literacy skills are ill-equipped to develop these capacities in their students. The emergence of AI-powered educational tools has added new dimensions to the media competence debate. Selwyn highlights the transformative potential of AI in education while cautioning against uncritical technological determinism. Similarly, Holmes et al. outline a spectrum of AI applications in education, ranging from intelligent tutoring systems to automated content creation tools, each with distinct implications for learner and teacher development. More recently, Roll and Wylie (2016) demonstrated that AI-enabled feedback systems can accelerate the development of critical thinking skills essential to media literacy. In the context of English language teacher education, scholars have begun to examine how digital tools reshape both pedagogical content knowledge and professional identity. Godwin-Jones argues that contemporary English teachers must be "digitally agile" – capable not only of using technology but of teaching with and through it in ways that model critical media engagement. Chun et al. (2016) specifically link multimodal literacy competencies to the professional preparation of language teachers, demonstrating that pre-service teachers who receive structured training in digital media production develop stronger lesson planning and learner engagement skills [2]. Despite this growing body of literature, relatively few studies have examined the intersection of AI tools and media competence development in the specific context of English language teacher education in Central Asia or the post-Soviet educational space. This article seeks to address this gap by drawing on both international scholarship and locally grounded empirical data.

This study employed a mixed-methods research design, integrating quantitative survey data with qualitative findings from classroom observations and reflective journaling. The research was conducted across two academic semesters (2023–2024) at Fergana State University, with 120 second- and third-year pre-service English language teachers participating as the primary sample. A pre-test/post-test survey instrument was developed based on the European Framework for Digital Competence for Educators adapted to reflect the specific dimensions of media competence identified in the theoretical framework. The instrument comprised 42 Likert-scale items across five competence dimensions: (1) media access and navigation; (2) critical analysis of media content; (3) digital content creation; (4) multimodal communication; and (5) ethical and legal dimensions of media use. Internal reliability was confirmed with a Cronbach's alpha coefficient of 0.87. Participants were divided into an experimental group (n=60), which received an AI-integrated media competence curriculum, and a control group (n=60), which followed the standard digital literacy module. Over the two-semester intervention period, the experimental group engaged with a structured sequence of AI-tool-assisted activities incorporating ChatGPT for critical discourse analysis of media texts, Grammarly and DeepL for contrastive analysis of authentic English media content, Canva AI and Adobe Express for multimodal teaching material design, and YouTube Data Tools and NewsGuard for evaluating the credibility of digital media sources.

Qualitative data were gathered through bi-weekly reflective journal entries (collected from all participants) and focused classroom observations (12 sessions per group). A thematic analysis approach [3] was applied to the qualitative data, with themes identified deductively from the media competence framework and inductively from participant responses. Descriptive statistics, paired-samples t-tests, and independent-samples t-tests were used for quantitative analysis. Statistical significance was set at $p < 0.05$.

RESULTS AND DISCUSSION

Pre-test scores indicated no statistically significant differences between the experimental and control groups across all five media competence dimensions ($p > 0.05$), confirming baseline equivalence. Post-test analysis revealed statistically significant gains in the experimental group across all dimensions compared to the control group.

The most pronounced improvements in the experimental group were observed in critical analysis of media content ($M=3.82$ pre-test to $M=4.61$ post-test; $t(59)=9.43$, $p<0.001$) and digital content creation ($M=3.45$ to $M=4.54$; $t(59)=11.27$, $p<0.001$). Moderate but significant gains were observed in multimodal communication ($M=3.61$ to $M=4.38$; $t(59)=8.15$, $p<0.001$). The control group showed modest pre-to-post improvements only in media access and navigation and ethical dimensions, and the between-group differences were significant for all five dimensions at post-test (all $p<0.001$).

Qualitative analysis of reflective journals yielded three major themes. First, participants in the experimental group reported a transition from passive media consumers to active, critically reflective media practitioners. One participant noted: "Using ChatGPT to analyze news articles helped me see how language choices in the media shape the reader's perception. I now look at any English text not just as a learner but as someone who questions it." Second, the AI tools facilitated what participants termed "productive uncertainty" – a productive discomfort with algorithmic outputs that prompted deeper critical engagement. Third, participants identified enhanced professional self-efficacy, reporting greater confidence in their ability to design media-rich English lessons aligned with learner needs and national curriculum standards. Classroom observations corroborated these findings, documenting a marked increase in student-initiated critical discussion of media texts, collaborative digital content production, and peer assessment of multimodal teaching materials in the experimental group sessions.

The findings of this study affirm and extend the existing literature on AI-enhanced media literacy education. The significant gains observed in critical analysis competencies align with Hobbs' argument that structured, reflective engagement with digital media is a prerequisite for genuine media literacy development, and with more recent empirical evidence suggesting that AI-assisted text analysis tools can scaffold this reflective process [4]. The development of what participants called "productive uncertainty" resonates with Selwyn's (2019) theorization of critical digital literacy as requiring not just skill acquisition but epistemic humility in relation to technological systems.

The results also have implications for pedagogical model design. The AIMediaComp framework emerging from this study proposes a three-phase instructional sequence: (1) Exposure and Deconstruction, in which pre-service teachers use AI tools to analyze existing media texts for linguistic, ideological, and structural features; (2) Creation and Transformation, in which they design original multimodal teaching materials using AI-assisted production tools; and (3) Reflection and Critique, in which they evaluate both their own media products and the AI tools themselves as sites of potential bias and limitation. This cyclical, critically-oriented model extends existing frameworks by foregrounding the reflexive relationship between the teacher-learner and the AI tool. From a policy perspective, the findings support calls for the systematic integration of AI-mediated media competence training into national English language teacher education standards in Uzbekistan. The

demonstrated effectiveness of specific AI tools – particularly ChatGPT for discourse analysis and Canva AI for multimodal design – provides actionable guidance for curriculum developers and teacher educators.

CONCLUSION

This article has demonstrated that the deliberate integration of artificial intelligence tools into English language teacher education can significantly advance the development of media competence across critical, creative, and ethical dimensions. The AIMediaComp model proposed here offers a replicable pedagogical framework that is sensitive to the specific professional demands of English language teaching while remaining adaptable to diverse institutional contexts. Future research should examine the longitudinal impact of AI-enhanced media competence training on classroom practice, particularly as graduates enter the teaching profession and encounter the full complexity of media-rich learning environments. Cross-institutional and cross-national comparative studies would further strengthen the evidence base and support the development of regionally appropriate policy frameworks. The growing availability and sophistication of AI tools makes this an urgent and fertile area for educational inquiry.

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