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AI-ASSISTED LANGUAGE TEACHING IN THE TURKIC WORLD DIGITAL ECOSYSTEM: A SMART "PLE CURATOR" MODEL FOR TURKOLOGY DEPARTMENTS IN UZBEKISTAN

Ezel Öztunç*
University of Sağlık Bilimleri - Samarkand State Medical University Lecturer of Turkish Language
✉ ezelloztunc@gmail.com

ABSTRACT

The accelerated transformation in educational technologies makes it imperative to surpass the static boundaries of traditional Learning Management Systems (LMS) in foreign language education. This need is particularly prominent for Turkic studies chairs and Turkish teaching centers in the context of Uzbekistan, where the target language is not directly spoken outside the classroom. Based on Attwell's (2007) Personal Learning Environment (PLE) philosophy and Siemens' Connectivism theory, this study aims to propose the "AI-Supported TTFL-PLE" model, updated with artificial intelligence (AI) integration. Designed as a conceptual paper, this research analytically investigates at a pedagogical level how large language models (LLMs) can function not merely as static assignment tools but as "intelligent curators" and "digital peers" for language learners. The proposed model offers a dynamic ecosystem that enables students to filter authentic Turkish inputs tailored to their language proficiency and professional interests, process and reflect on content through AI assistance, and ultimately produce digital outputs as action-oriented "social agents". Furthermore, the study schematizes how this AI-based model can be operationalized step-by-step in accordance with the Common European Framework of Reference for Languages (CEFR) levels, while discussing the evolving roles of instructors as "guides and curators" alongside the framework's infrastructure and autonomy-related limitations. Ultimately, this paper seeks to shift language teaching processes in the Turkic world into AI-supported autonomous learning networks.

Keywords

Artificial Intelligence, Personal Learning Environment (PLE), Connectivism, Teaching Turkish as a Foreign Language (TTFL), Uzbekistan.

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INTRODUCTION

The digital transformation momentum of the twenty-first century is forcing foreign language pedagogy to transcend the static boundaries of institutional Learning Management Systems (LMS). While rigid, hierarchical curricula slow down digital native learners, contemporary language approaches view language not as a set of rules confined to classroom walls, but as a dynamic field of agency exercised across global networks. This paradigm shift becomes a vital necessity in artificial language environments where Turkish is taught outside of Türkiye's borders, particularly within the Turkology departments and language centers in Uzbekistan. For learners who lack natural interaction with the target language in their daily lives outside the classroom (i.e., the absence of a second language context), limited course hours fall short of providing the rich input required for language acquisition. This structural bottleneck makes autonomous pedagogical frameworks—capable of bringing language learning into the learner's living, personal digital world—an urgent priority.

At this point, the philosophy of Personal Learning Environments (PLE), introduced by Attwell (2007), offers a dynamic individual ecosystem in which learners organize digital tools and information resources in line with their own educational goals. Today, the integration of generative artificial intelligence (AI) and large language models (LLMs) into this ecosystem has fundamentally shifted the dynamics. AI is no longer merely

a mechanical tool for grading static homework assignments; instead, it has evolved into a smart ”digital peer” and ”PLE curator” that delivers personalized authentic texts, unpacks linguistic nuances, and strengthens the learner's developing autonomy muscles (Warschauer, 2024).

Although international literature features various studies on the integration of artificial intelligence into education, research that synthesizes these two concepts into a holistic theoretical model specifically tailored to Turkish language instruction in Uzbekistan remains remarkably limited. To address this gap, the present study aims to propose an ”AI-Assisted TFSL-PLE” (Teaching Turkish as a Foreign Language - Personal Learning Environment) model by synthesizing Attwell’s (2007) PLE approach and Siemens’ Connectivism theory along the axis of artificial intelligence. Designed as a conceptual study, this paper is expected to make an original contribution toward shifting the static understanding of digital tasks into a dynamic AI ecosystem centered on learner autonomy.

METHODOLOGY

This study relies on a qualitative and conceptual research model that aims to generate a practical solution to a theoretical gap. The primary focus of the study is not to re-test existing empirical data, but to construct an original theoretical framework—namely the ”AI-Assisted TFSL-PLE” model—at the intersection of foreign language pedagogy and contemporary digital transformation dynamics in educational technologies.

The structural formulation and scientific validity of the model are built upon two fundamental theoretical pillars at the philosophical and pedagogical levels:

1. Connectivism: In accordance with this theory formulated by Siemens (2005), language learning is conceptualized not as memorizing static rules, but as the ability to establish and manage meaningful connections across digital networks comprising AI assistants, authentic resources, and native Turkish speakers within the internet ecosystem.

2. Learner Autonomy and Self-Regulation: Grounded in the philosophies of Bandura (1977) and Attwell (2007), students' capacity to set their own learning goals, filter inputs, and independently manage their cognitive processes under the guidance of AI tools is positioned as the sustainable engine of the model.

Throughout the research process, the ”difficulty of accessing out-of-class Turkish input” (i.e., the absence of a second language context) encountered in higher education and Turkology departments across the geographical context of Uzbekistan was taken as the primary problem statement. The role of artificial intelligence (large language models) within this problem statement was analyzed and integrated into the model not merely as static software, but as intelligent ”scaffolding” that dynamically organizes students' personal learning environments (PLE). The components of the proposed TFSL-PLE model and its gradual transition scenarios across language levels (A1–C1) were subjected to a structural analysis based on the criteria of the Council of Europe's (2020) Action-Oriented Approach.

RESULTS AND DISCUSSION

The ”AI-Assisted TFSL-PLE” model developed in this study is built upon four core operational cycles to address the lack of out-of-class input experienced by learners of Turkish in the geographical context of Uzbekistan. By moving away from conventional, static assignment structures, the underlying mechanism of the model positions artificial intelligence as a genuine ”pedagogical partner”:

1. Smart Input Collection and Personalized Filtering (Consume/Filter): The initial stage involves filtering authentic Turkish materials tailored to the learners' current language levels (CEFR) and professional interests. While traditional instruction often imposes a single uniform text on the entire class, large language models (LLMs) in this model weave personalized reading and listening networks drawn from contemporary Turkish media, academic articles, or literary works based on individual learner requests. Here, AI acts as an intelligent filter that contextualizes and localizes unfamiliar cultural elements and idioms into the learner's native language (Uzbek).

2. Deep Content Processing and AI-Assisted Reflection (Process/Reflect): Learners do not merely consume the gathered data in a passive manner. At this juncture, AI steps into the role of a ”digital peer”—asking Socratic questions about the text, simulating the use of target vocabulary across varied contexts, and

unpacking grammatical structures functionally rather than relying on rigid formulas. Through this AI interface, learners gain the space to reflect on and refine their errors within a psychologically safe environment, entirely free from traditional classroom anxiety.

3. Action-Oriented Digital Production (Produce): Grounded in the primary output of Connectivism theory, the production stage requires students to generate their own digital content—such as blog posts, digital glossaries, short audio logs, or vlog scripts—in Turkish, utilizing the feedback provided by AI. Serving as a ”content editor,” the AI refines text fluidity and morphological accuracy while leaving the creative process entirely in the hands of the autonomous learner.

4. Integration into Global Digital Networks (Share): The authentic content produced is taken beyond closed classroom walls and shared across open digital platforms, including Telegram channels, educational forums, or broader Turkology networks. In doing so, as Siemens (2005) highlights, learners transition from being passive consumers of knowledge to becoming active ”nodes” and social agents within digital networks.

Graduated Structure Across Language Levels: Rather than relying on a rigid template, the model employs a flexible design that gradually scales back AI scaffolding as the learner's proficiency advances. At lower levels (A1–A2), AI primarily offers structured bilingual dictionary support, simplified grammar, and close guidance. As learners reach higher levels (B2–C1), it naturally evolves into an authentic debate partner, an academic writing assistant, and a stylistic advisor.

DISCUSSION

While literature combining traditional LMS structures with artificial intelligence predominantly focuses on mechanized testing processes, the proposed TFSL-PLE model sets itself apart by directly positioning technology along the axes of ”learner autonomy” and ”connective network management.” Through this model, the ”out-of-class artificial environment” barrier—which stands as the primary handicap faced by Turkology departments in Uzbekistan—can be transformed into a living, dynamic, and adaptable digital Turkish universe. Nevertheless, the ultimate success of the model hinges directly on students' digital literacy levels, their self-regulation capacities, and equal institutional access to technological infrastructure. Moreover, the risk of large language models constraining linguistic creativity alongside the continuous need for pedagogical verification must not be overlooked in this process (Chomsky, 2023).

CONCLUSION AND RECOMMENDATIONS

In this study, the lack of out-of-class input and natural interaction—which stands as the most fundamental structural bottleneck in teaching Turkish as a foreign language across the geographical context of Uzbekistan—has been addressed through the opportunities offered by contemporary educational technologies. By synthesizing Attwell’s (2007) Personal Learning Environment (PLE) approach with Siemens’ Connectivism theory along the axis of artificial intelligence, the proposed ”AI-Assisted TFSL-PLE” model elevates the learner from a passive content consumer to an autonomous social agent who actively designs their own learning universe.

The theoretical outcomes of the research demonstrate that large language models (LLMs) in language education should not be utilized merely as traditional homework-checking mechanisms or static dictionaries. Instead, they ought to be structured as intelligent curators that deliver personalized input streams, minimize linguistic anxiety, and guide action-oriented production processes. This dynamic structure enables students studying in Turkology departments across Uzbekistan to step beyond classroom walls and integrate into a 24/7 living digital Turkish ecosystem shaped around their personal interests. By loosening rigid hierarchical structures, technology enhances the fluidity of knowledge and strengthens individual learning muscles.

To functionally implement the proposed model and ensure its long-term sustainability, the following concrete steps are recommended:

Flexibility of Curricula: Turkish language programs conducted in Uzbekistan’s higher education institutions should not remain confined to traditional classroom materials alone. Instead, action-oriented tasks (vlogs, digital glossaries, blog posts, etc.) that students carry out within their personal learning environments (PLE) with AI assistance should be officially integrated into formal assessment criteria.

Digital Literacy Training: The performance trajectory of the model depends directly on the learner's self-regulation skills. Therefore, strategies for crafting effective prompts, verifying academic data, and filtering digital resources should be explicitly provided to students as pedagogical guides.

Transformation of Educator Roles: Instructors should step back from acting as the sole source of information (gatekeeper) in the classroom. Instead, they need to adapt to the roles of ”digital mentors” and ”pedagogical curators” who oversee whether students are constructing their AI-based learning networks effectively.

Institutional Collaborations: Shared Telegram networks, cloud platforms, and digital educational forums should be actively encouraged across universities and Turkology departments in the Turkic world, enabling students to collaboratively share the authentic digital content they produce.

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