The Impact of Artificial Intelligence on Learner Identity and Motivation in Language Acquisition

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Abstract: Artificial Intelligence (AI) technologies are fundamentally transforming language learning by reshaping not only pedagogical tools but also psychological dynamics. This paper investigates how AI-driven environments influence learner identity formation and motivation during second language acquisition (SLA). Utilizing the IMRAD framework, we analyze how non-judgmental conversational AI, gamification, and personalized learning algorithms affect affective filters, language anxiety, and self-efficacy. Findings indicate that AI creates a psychologically safe space that fosters risk-taking and reduces communicative anxiety, thereby strengthening intrinsic motivation. However, challenges regarding over-reliance and the absence of authentic socio-cultural nuance persist.

Keywords: Artificial Intelligence, Language Acquisition, Learner Identity, Intrinsic Motivation, Language Anxiety, SLA, Pedagogical Technology.

Introduction

In contemporary second language acquisition (SLA), the integration of Artificial Intelligence (AI) — ranging from Large Language Models (LLMs) like ChatGPT to intelligent tutoring systems and automated feedback tools — has initiated a paradigm shift. Traditional SLA frameworks have long recognized that cognitive capability alone does not dictate language mastery; affective factors, including motivation, self-concept, and learner identity, play a decisive role.

Learner identity refers to how language learners understand their relationship to the world, how that relationship is constructed across time and space, and how they understand their possibilities for the future (Norton, 2013). Meanwhile, motivation acts as the primary engine driving long-term language engagement. As AI tools assume the role of conversational partners and tutors, they alter the traditional power dynamics of the classroom, offering unprecedented levels of individualization and psychological safety.

This paper examines the dual impact of AI on learner identity reconstruction and motivational shifts in L2 learning.

This study adopts a qualitative meta-synthesis and analytical framework approach to investigate the cognitive and affective dimensions of AI-assisted language learning. The methodological approach synthesizes empirical findings across three primary domains:

SLA Identity Frameworks: Applying Norton’s identity and investment theory alongside Dörnyei’s L2 Motivational Self System (Ideal L2 Self vs. Ought-to L2 Self).

AI Interaction Analysis: Evaluating student-AI interaction dynamics across natural language processing platforms, automated speech recognition (ASR) applications, and adaptive learning algorithms. Affective Filter Evaluation: Measuring changes in foreign language classroom anxiety (FLCA) in traditional vs. I-mediated learning environments. The primary barrier to foreign language production is often the fear of negative evaluation (Krashen's Affective Filter Hypothesis). AI environments eliminate peer judgment, creating a "low-affective-filter" environment. Learners freely experiment with complex linguistic structures without fear of public embarrassment, allowing them to construct an empowered L2 identity.

Shift from Extrinsic to Intrinsic Motivation Through real-time adaptive feedback and gamified reward loops, AI systems capitalize on micro-achievements. This activates intrinsic satisfaction, moving learners from fulfilling external requirements ("Ought-to L2 Self") toward actualizing their personal vision of language fluency ("Ideal L2 Self").

The findings demonstrate that AI acts as more than a cognitive tutor; it is a socio-psychological mediator. By providing a safe environment for error negotiation, AI fosters learner autonomy, allowing students to transition from passive consumers of grammar rules to active co-constructors of meaning.

However, several critical limitations must be addressed: Absence of Pragmatic and Cultural Nuance: AI

models, while linguistically competent, lack human empathy, cultural depth, and authentic non-verbal cues essential for holistic communicative competence. Risk of Over-Reliance: Dependency on continuous AI scaffolding may impede a learner's ability to navigate unscripted, high-stakes real-world interactions where immediate AI correction is absent.

Artificial Intelligence serves as a powerful catalyst for reshaping learner identity and accelerating motivation in language acquisition. By establishing a non-judgmental, highly personalized learning sphere, AI diminishes communicative anxiety and strengthens self-efficacy. Nevertheless, AI should be positioned as a complementary, scaffolding tool rather than a replacement for human-to-human cultural exchange and pedagogical guidance.

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