

Improving EFL students' intonation acquisition through AI-powered shadowing

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Abstract

Successful and effective communication in the context of a foreign language relies not only on grammar and vocabulary but also on effective prosody, particularly intonation. This study investigates the effectiveness of integrating Artificial Intelligence (AI) with the shadowing technique to improve intonation performance among English as a Foreign Language (EFL) college students. In fact, intonation is regarded as a problematic feature of pronunciation among English as a Foreign Language (EFL) students, as it determines how an utterance is produced in relation to accent, stress, and rising/falling pitch. Many EFL students face difficulties in learning and differentiating rising/falling intonation patterns. They don't know what intonation to use because English sentences can be statements, questions, commands, etc. A quantitative, one-group pre-test/post-test design was employed in conducting this study. Twenty second-year college students participated in a four-week intervention session using AI-supported shadowing exercises. Pre- and post-tests were administered to examine changes in their performance. The findings demonstrated a statistically significant improvement in the intonation performance of the participants ($t = 9.659$, $df=19$, $p < .05$) suggesting that integrating AI-assisted tools with shadowing practice enhances prosodic competence and provides an effective pedagogical model for pronunciation instruction.

Keywords: AI powered tools; EFL learners; Intonation acquisition; Shadowing techniques

1. Introduction

In English, pronunciation is considered an essential component for effective communication. It affects the clarity and intelligibility of non-native English speakers. In general, achieving intelligible pronunciation is a key goal for EFL college students, and in the process, they encounter critical challenges in mastering different pronunciation aspects. In particular, intonation, a crucial suprasegmental feature in spoken English, refers to the rise and fall of pitch while speaking; it also plays a key role in conveying emotions, questioning, emphasizing, and distinguishing between different types of sentences. According to J.C. Wells (2006), 'intonation is the melody of speech'. In studying intonation, we study how the pitch of the voice rises and falls and how speakers use this pitch variation to convey linguistic and pragmatic meaning.

The present study has been carried out as a response to these challenges; two tools have been utilized in order to assist EFL college students to acquire better intonation performance. These two resources, which are AI-powered tools and shadowing techniques, may offer EFL students a comprehensive method for learning intonation, listening comprehension, and speaking fluency. In fact, bringing technology to language learning and particularly to pronunciation training will have undeniable benefits for EFL students (Neri et al., 2002; Benzies, 2017; O'Brien et al., 2018; Yoshida, 2018; Pokrivčáková, 2019; Rogerson-Revell, 2021; Vančová, 2021). Besides, in pronunciation matters technology is mostly present to assist students in their training program. Regarding the shadowing technique, it activates students' memory and provides quick responses to utterances as language input, as stated by Thi Huyen et al. (2020). Therefore, the shadowing technique can be an effective substitute for assisting students to improve their pronunciation proficiency.

2. Literature Review

Intonation is very important to learn because it plays an essential role in communication. Through intonation the meaning of a sentence can be changed, it can convey emotions, and it can indicate

Note. This paper has been retracted upon the request of the authors.