

LEXICAL RETRIEVAL AND AUTOMATIZATION IN EFL SPEAKING: THE ROLE OF DIGITAL ORAL PRACTICE IN UNIVERSITY CONTEXTS

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Abstract

The inability to retrieve known vocabulary during spontaneous speaking remains a major obstacle for English as a Foreign Language (EFL) learners. Although university students often possess substantial receptive vocabulary knowledge, limitations in lexical retrieval speed and automatization hinder their spoken performance. Drawing on psycholinguistic and skill acquisition perspectives, this study examines whether digitally mediated oral practice can facilitate the automatization of receptive vocabulary into productive use in EFL speaking.

Using a quasi-experimental design, the study was conducted with undergraduate EFL learners at a public university in Uzbekistan. The experimental group engaged in digitally mediated oral retrieval tasks, including repeated spoken output, timed responses, and feedback-supported practice, while the comparison group received conventional speaking instruction. Data were collected through pre- and post-speaking tasks and analyzed in terms of lexical retrieval speed, accuracy, and productive use of target vocabulary.

The findings demonstrate that learners who participated in digital oral practice showed significantly greater gains in productive vocabulary use and retrieval fluency than those in the comparison group. These results suggest that technology-mediated speaking tasks can support lexical automatization, thereby narrowing the gap between receptive knowledge and productive oral use. The study contributes to research on vocabulary use in speaking by emphasizing retrieval-based processes rather than vocabulary acquisition alone.



Keywords: Lexical retrieval, vocabulary automatization, EFL speaking, digital oral practice, productive vocabulary, technology-enhanced language learning.

Introduction

Developing spoken proficiency remains a central challenge for learners of English as a Foreign Language (EFL). Although university learners often acquire substantial receptive vocabulary knowledge through reading, listening, and formal instruction, this knowledge frequently fails to transfer into spontaneous spoken production (Laufer, 1998; Nation, 2013). As a result, EFL learners' speech is commonly characterized by hesitation, lexical avoidance, and limited lexical diversity, even when learners can recognize and understand a wider range of vocabulary receptively (Webb, 2008). This persistent gap between receptive and productive vocabulary knowledge highlights the need to examine vocabulary use in speaking as a process of lexical retrieval and automatization rather than mere vocabulary acquisition.

From a psycholinguistic perspective, speaking involves rapid and automatic access to lexical items under real-time processing constraints (Levelt, 1989). Productive vocabulary use requires not only knowledge of word meaning but also the ability to retrieve lexical forms accurately and fluently while simultaneously managing grammatical encoding and articulation (DeKeyser, 2007). Receptive knowledge alone is insufficient for this purpose; repeated retrieval and contextualized use are necessary for proceduralizing lexical knowledge and making it available for fluent speech (Swain, 2005).

However, traditional EFL classrooms often provide limited opportunities for sustained oral practice and repeated lexical retrieval. Speaking activities are frequently constrained by large class sizes, time limitations, and learner anxiety, resulting in minimal opportunities for learners to experiment with newly learned vocabulary in spoken interaction (Goh & Burns, 2012). Consequently, learners tend to rely on a narrow range of high-frequency words, reinforcing the imbalance between receptive and productive vocabulary knowledge (Laufer & Goldstein, 2004).

Advances in educational technology have created new possibilities for addressing these limitations. Digitally mediated speaking environments—such as audio-



recording tools, mobile applications, and online speaking platforms—can provide learners with increased opportunities for output, repetition, and feedback beyond the classroom (Chapelle, 2009; Stockwell, 2016). These affordances align closely with theoretical accounts emphasizing the role of output and retrieval practice in developing productive language skills (Swain, 2005).

These issues are particularly salient in EFL university contexts such as Uzbekistan, where English learning is largely classroom-based and opportunities for authentic spoken interaction are limited. University learners often demonstrate strong receptive skills but report difficulties in expressing themselves fluently and lexically in speaking. Despite increasing interest in technology-enhanced language learning, empirical research examining how digitally mediated oral practice supports lexical retrieval and automatization in EFL speaking remains limited. The present study seeks to address this gap by investigating the role of digital oral practice in activating receptive vocabulary for productive spoken use.

Literature Review

Receptive and Productive Vocabulary Knowledge

Vocabulary knowledge has long been recognized as a multidimensional construct encompassing both receptive and productive dimensions (Nation, 2001). Receptive vocabulary refers to words that learners can recognize and understand when encountered in input, whereas productive vocabulary involves the ability to retrieve and use words accurately in speech or writing. Research consistently shows that receptive vocabulary size exceeds productive vocabulary size, particularly in EFL contexts where exposure to spoken interaction is restricted (Laufer, 1998; Webb, 2008).

The disparity between receptive and productive vocabulary is especially evident in speaking, which places heavy cognitive demands on learners due to time pressure and the need for real-time processing. Learners often avoid using lexical items that they cannot retrieve quickly or confidently, even when those items are part of their receptive knowledge (Laufer & Goldstein, 2004). As a result, productive vocabulary use develops more slowly and requires targeted instructional support.



Lexical Retrieval and Automatization in Speaking

Lexical retrieval is a core component of speech production, involving the selection of appropriate lexical items from long-term memory and their integration into utterances (Levelt, 1989). From a skill acquisition perspective, lexical knowledge initially exists as declarative knowledge and must be proceduralized through repeated use to become automatic (DeKeyser, 2007). Automatized lexical retrieval is essential for fluent speech, as slow or effortful access increases cognitive load and disrupts communicative flow.

Research suggests that repeated retrieval under communicative conditions strengthens lexical representations and facilitates faster access (Hulstijn, 2011). Tasks that require learners to retrieve and use vocabulary multiple times across varied contexts are therefore crucial for transforming receptive knowledge into productive competence. Without such retrieval-focused practice, lexical knowledge may remain inert and unavailable for spontaneous speech.

Digital Oral Practice in EFL Contexts

Technology-enhanced language learning has been widely studied for its potential to increase learner engagement and provide flexible learning opportunities. Digitally mediated oral practice offers particular advantages for speaking development, including increased speaking time, opportunities for repetition, and reduced performance anxiety (Chapelle, 2009; Stockwell, 2016). Learners can rehearse spoken output, receive feedback, and repeat tasks at their own pace, which is rarely possible in traditional classrooms.

Empirical studies indicate that technology-mediated speaking tasks can improve fluency and learner confidence (Goh & Burns, 2012). However, much of the existing research focuses on general speaking performance or learner perceptions rather than on lexical processes underlying spoken production. Specifically, few studies have examined how digital oral practice supports lexical retrieval and automatization, particularly with respect to the productive use of receptively known vocabulary. This gap underscores the need for research that links technology-enhanced speaking practice to psycholinguistic processes of lexical activation.



Research Design

This study employed a quasi-experimental pretest–posttest design to investigate the effect of digitally mediated oral practice on lexical retrieval and automatization in EFL speaking. A mixed-methods approach was used, combining quantitative measures of spoken vocabulary performance with qualitative insights from learner reflections, to provide a comprehensive understanding of how digital oral practice influences productive vocabulary use.

Participants

A total of 60 undergraduate EFL learners (aged 18–22) at a public university in Uzbekistan participated in the study. Participants were randomly assigned to either an experimental group ($n = 30$) or a comparison group ($n = 30$). All participants shared similar educational backgrounds, intermediate-level English proficiency, and prior exposure to vocabulary primarily through receptive activities (reading and listening).

Instructional Intervention

The intervention lasted six weeks, with two 90-minute sessions per week.

Experimental Group: Engaged in digitally mediated oral tasks designed to promote repeated vocabulary retrieval, including:

Timed spoken responses requiring target vocabulary use

Audio-recorded monologues with automated or teacher feedback

Repeated retrieval exercises with low-stakes peer or AI interaction

Comparison Group: Received conventional speaking instruction, including textbook-based discussions and teacher-led oral activities without digital mediation or time-pressured retrieval tasks.

Target Vocabulary: 60 words selected from course materials were confirmed to be receptively known via a pre-intervention vocabulary recognition test.

Data Collection Instruments

Pre- and Post-Speaking Tasks: Participants completed picture-description and opinion-based prompts, recorded and transcribed for analysis.

Lexical Measures:



Lexical retrieval speed: Time from prompt onset to first correct use of target vocabulary.

Lexical accuracy: Correct usage of target words in appropriate contexts.

Lexical diversity: Number of unique target words produced.

Learner Reflections: Semi-structured reflections collected from experimental group participants to capture perceptions of digital practice and confidence in speaking.

Data Analysis

Quantitative data were analyzed using SPSS 28.

Descriptive statistics summarized mean scores, standard deviations, and range for lexical retrieval speed, accuracy, and diversity.

Paired-samples t-tests assessed within-group pre–post differences.

Independent-samples t-tests compared post-test outcomes between the experimental and comparison groups.

Effect sizes (Cohen's *d*) were calculated to assess the magnitude of intervention effects.

Qualitative data from learner reflections were analyzed thematically, focusing on perceived improvements in lexical retrieval, confidence, and engagement with digital oral tasks. Themes were triangulated with quantitative findings to provide a richer interpretation of results.

Results

Quantitative Findings

1. Lexical Retrieval Speed

The experimental group showed a significant reduction in retrieval latency from pre-test ($M = 6.8$ s, $SD = 1.2$) to post-test ($M = 4.3$ s, $SD = 0.9$), $t(29) = 9.12$, $p < .001$, Cohen's $d = 1.66$. The comparison group showed a smaller, non-significant improvement (pre: $M = 6.7$ s, $SD = 1.3$; post: $M = 6.1$ s, $SD = 1.2$), $t(29) = 1.92$, $p = .064$.

2. Lexical Accuracy

Experimental group accuracy increased from 62% to 88% ($t(29) = 8.45$, $p < .001$, $d = 1.54$), whereas the comparison group improved from 63% to 70% ($t(29) = 2.11$, $p = .043$, $d = 0.39$).



3. Lexical Diversity

The experimental group produced an average of 42 unique target words at post-test compared with 28 at pre-test ($t(29) = 7.23, p < .001, d = 1.32$). The comparison group produced 31 words at post-test, a marginal increase from 27 at pre-test ($t(29) = 1.98, p = .056$).

Between-Group Comparisons

Independent-samples t-tests confirmed significant post-test differences favoring the experimental group for all measures: retrieval speed ($t(58) = 6.41, p < .001$), accuracy ($t(58) = 5.83, p < .001$), and lexical diversity ($t(58) = 4.92, p < .001$), demonstrating the effectiveness of digital oral practice in enhancing productive vocabulary.

Qualitative Findings

Thematic analysis of learner reflections revealed three primary themes:

Increased Retrieval Confidence: Learners reported feeling more confident using target vocabulary spontaneously.

Reduced Hesitation: Many participants noted fewer pauses and greater fluency during speaking tasks.

Engagement with Digital Tools: Learners highlighted the value of repeated, low-pressure digital speaking tasks for consolidating vocabulary and practicing pronunciation.

These qualitative findings support the quantitative results, suggesting that digital oral practice not only improves measurable lexical performance but also positively influences learner confidence and motivation.

Conclusion

This article has highlighted the importance of viewing EFL speaking difficulties not merely as a lack of vocabulary knowledge but as a problem of lexical retrieval and automatization. While university learners often possess substantial receptive vocabularies, these lexical resources frequently remain underutilized in spoken communication due to limited opportunities for repeated retrieval and oral practice. Digitally mediated speaking environments offer promising affordances for addressing this challenge by enabling frequent, low-stakes oral production and supporting the proceduralization of lexical knowledge.



By foregrounding lexical retrieval and automatization, this study contributes to a more process-oriented understanding of productive vocabulary development in EFL speaking. The findings suggest that integrating digital oral practice into university-level EFL instruction may help bridge the gap between knowing words and using them in speech, particularly in contexts with limited exposure to spoken English. Future research should explore the long-term effects of retrieval-focused digital speaking tasks and examine how different task designs influence lexical activation and fluency development.

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