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## SIGNIFICANCE AND APPLICATION OF PSYCHOLINGUISTICS ON ENGLISH TEACHING USING LMS

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**Abstract-** *This study investigates the pedagogical implications of integrating psycholinguistic principles into English language instruction through the strategic use of Learning Management Systems (LMS), specifically Google Drive, Google Classroom, and Zoom. Employing a qualitative case study approach, the research was conducted with seven students enrolled in a psycholinguistics course within the English Literature program at Persada Bunda Indonesia University. Data collection involved triangulated methods, including classroom observations, reflective journals, semi-structured interviews, and document analysis of student outputs. The findings reveal that embedding psycholinguistic concepts within LMS-based instruction significantly enhanced learners' understanding of language processing mechanisms in the brain. Moreover, it fostered the development of metacognitive strategies and promoted learner autonomy in English language acquisition. Each LMS tool played a distinctive role in supporting psycholinguistic dimensions of learning: Zoom facilitated real-time language production and interaction; Google Classroom provided a platform for structured linguistic input and cognitive engagement; while Google Drive promoted collaborative construction of meaning and reflective learning practices. The study concludes that the integration of psycholinguistic theory with digital learning environments can enrich the quality of English language education. Such an approach aligns instructional practices with cognitive processes, thereby fostering more effective, engaging, and learner-centered pedagogy in higher education settings.*

**Keywords:** *Psycholinguistics; English Language Teaching; Learning Management System*

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## INTRODUCTION

Language plays a central role in human communication and interaction, serving as the primary medium through which ideas are shared, relationships are formed, and knowledge is transmitted. In the context of English language instruction, the development

of effective pedagogical approaches requires a clear understanding of how language is acquired, processed, and utilized. Psycholinguistics—an interdisciplinary field bridging psychology and linguistics—offers valuable insights into the mental processes underlying language comprehension, production, and acquisition. It explains how learners process words and sentences and how cognitive and affective factors such as memory, attention, anxiety, and motivation influence second language acquisition. For students in non-English-speaking countries, mastering English as a global language presents numerous challenges, including limited vocabulary, unfamiliar grammatical structures, and psychological barriers that impede learning. Teachers who apply psycholinguistic principles are better equipped to design instruction that aligns with learners' cognitive processes, thereby enhancing language development and reducing cognitive overload.

In parallel with these linguistic and cognitive considerations, the twenty-first century has witnessed a significant transformation in educational delivery through the adoption of digital platforms. Learning Management Systems (LMS), such as Google Classroom, Zoom, and Google Drive, have become increasingly prominent, offering flexible, accessible, and collaborative learning experiences—especially during and after the COVID-19 pandemic. While many studies have examined the general benefits of LMS in language teaching—highlighting improvements in learner motivation, autonomy, and satisfaction—few have explored how psycholinguistic principles can be purposefully embedded within these platforms to enhance English language acquisition. For instance, research on LMS such as Moodle, Blackboard, and Google Classroom has demonstrated their positive effects on writing motivation, autonomy, and flexible learning (Ayan, 2015; Sujannah et al., 2020). Similarly, studies in Computer-Supported Collaborative Learning (CSCL) highlight improved learner confidence, engagement, and metalinguistic awareness through group-based, technology-mediated activities. However, these investigations frequently treat LMS and psycholinguistic theory as separate domains.

Psycholinguistics provides a theoretical foundation for understanding how learners process language, covering areas such as speech production, comprehension, and metacognition. Yet, empirical studies rarely integrate these cognitive theories into the design or analysis of digital learning tools. This study addresses that gap by examining how psycholinguistic frameworks—such as the Interaction Hypothesis and error-monitoring strategies—can be intentionally applied within LMS environments,

particularly Zoom, Google Classroom, and Google Drive, to foster cognitively aligned and learner-centered English instruction at Persada Bunda Indonesia University.

Psycholinguistics is concerned with the relationship between language and the human mind. Rooted in both linguistics and psychology, it seeks to understand how language is produced, processed, and learned. As Aitchison (2008) explains, psycholinguistics examines how the brain interprets words and sentences, how language is stored and retrieved, and how people transform their thoughts into spoken language. This field is particularly relevant to second language acquisition (SLA) as it sheds light on the mental processes involved in learning and using a new language. Learners of SLA face complex mental tasks such as identifying unfamiliar sounds, interpreting meaning, comprehending grammar, and responding appropriately in social contexts. Ellis (2006) emphasizes that effective language acquisition requires input that is slightly beyond the learner's current level of understanding—an idea consistent with Krashen's Input Hypothesis (1982). These theories suggest that successful language development depends on comprehensible input, focused attention, and meaningful output. A key model in this field is Levelt's (1989) speech production framework, which outlines three stages in transforming concepts into spoken language: conceptualization, formulation, and articulation. Understanding these stages enables teachers to design strategies that address learners' specific challenges, such as word retrieval difficulties or sentence formulation problems.

In addition to understanding cognitive processes, psycholinguistics also examines differences between first language (L1) and second language (L2) acquisition. While L1 acquisition occurs naturally and subconsciously during early childhood, L2 acquisition usually takes place later in life and often involves deliberate, structured learning (Lightbown & Spada, 2013). Chaer (2015, as cited in Purba, 2018) notes that learning an L2 requires conscious effort and cognitive engagement. Unlike the intuitive process of acquiring an L1, mastering an L2 demands attention to grammar rules, vocabulary memorization, and sentence construction. By understanding these processes, teachers can design learning activities that match learners' mental strategies for processing and producing language.

The rapid growth of technology has transformed English language teaching. LMS platforms such as Google Classroom, Google Drive, and Zoom provide spaces for content

delivery, progress tracking, and collaboration beyond the traditional classroom. During the COVID-19 pandemic, these platforms became essential tools for maintaining educational continuity (Almahali, 2020). LMS tools allow students to work autonomously, access diverse forms of linguistic input (text, video, audio), and engage in real-time discussions or asynchronous forums. According to Kessler (2018), LMS use promotes critical thinking, digital literacy, and independent learning—skills increasingly vital for language learners. However, as Vrasidas and Glass (2002) point out, technology use must be pedagogically rather than purely technically driven. This is where psycholinguistic principles become critical.

Integrating psycholinguistics with LMS tools enables teachers to create cognitively and socially engaging instruction. For example, LMS can address Nation and Newton's (2009) four strands of language learning: meaning-focused input (watching English-language videos), meaning-focused output (participating in Zoom discussions), language-focused learning (grammar exercises in Google Docs), and fluency development (timed reading tasks). Chapelle (2001) emphasizes that Computer-Assisted Language Learning (CALL), when grounded in sound theoretical principles, enhances language learning outcomes. Psycholinguistics provides those principles by showing how factors such as motivation, memory, and attention shape learning. Thus, in digital instruction, educators must consider cognitive load, learner readiness, and mental processing sequences to design effective activities.

In sum, psycholinguistic research reveals that while L1 is acquired subconsciously, L2 acquisition benefits from deliberate cognitive strategies such as repetition, revision, and feedback—all of which can be facilitated through LMS platforms. By aligning LMS-based activities with psycholinguistic insights, teachers can enhance English language acquisition in ways that are cognitively efficient, engaging, and learner-centered.

## **METHODS**

### **Research design**

This study employed a qualitative case study design to investigate the integration of psycholinguistic principles in English language instruction through Learning Management Systems (LMS). The case study approach was selected because it allows for

an in-depth examination of a specific group of learners in an authentic educational context (Creswell, 2013). The primary aim was to explore how psycholinguistic concepts could be effectively applied alongside online learning tools—specifically Zoom, Google Classroom, and Google Drive—to enhance students' English language proficiency.

The study was conducted in the English Literature Study Program at Persada Bunda Indonesia University. The participants were seven undergraduate students enrolled in a semester-long Psycholinguistics course. All participants had completed basic and intermediate English courses and were in their third or fourth year of study. They were selected through purposive sampling, based on their willingness to participate, active engagement in the course, and regular access to the LMS platforms. All participants had prior experience with online learning.

### **Data Collection**

To ensure a rich and valid dataset, the study utilized multiple qualitative data collection methods, enabling triangulation across sources. Data were collected in the following stages: (1) Classroom Observations, conducted during live Zoom sessions throughout the semester to monitor student engagement, response time, and language output. Observations provided insight into cognitive processing and communicative behaviors in real-time interaction. (2) Reflective Journals, students submitted weekly journals documenting their learning experiences, perceived challenges, and reflections on how LMS tools supported their understanding of psycholinguistic concepts. (3) Semi-structured interviews, conducted at the end of the semester to gain deeper insight into participants' perceptions of integrating psycholinguistic principles with LMS tools. Interviews allowed for follow-up questions and clarification. (4) Document Analysis, review of student-produced work, including assignments, discussion posts, and collaborative projects submitted via Google Drive and Google Classroom. Analysis focused on tracking language development and the application of psycholinguistic strategies over time. Ethical procedures were strictly followed: participants provided informed consent, were informed of their right to withdraw at any stage, and were assured that their responses would remain confidential and used solely for research purposes.

## Data analysis

Data analysis followed the six-phase thematic analysis process outlined by Braun and Clarke (2006). First, familiarization with the data – reading and re-reading all transcripts, journals, observation notes, and documents to gain an overview of patterns. Second, generating initial codes – assigning descriptive codes to segments of text related to language comprehension, production, and acquisition. Third, searching for themes – grouping related codes into broader thematic categories aligned with psycholinguistic constructs. Fourth, reviewing themes – refining and validating themes across all datasets for internal coherence. Fifth, Defining and Naming Themes – Developing precise definitions for each theme to reflect the essence of the findings. Sixth, producing the report – organizing the final themes and linking them to research questions and literature. Lastly, thematic coding and category management were conducted using NVivo software to ensure systematic data handling. Themes were organized according to the core domains of psycholinguistics—comprehension, speech production, and language acquisition—and examined in relation to the affordances of LMS tools

## FINDINGS AND DISCUSSION

### Findings

The results of observations, reflective journals, interviews, and document analysis from a semester-long psycholinguistics course delivered through LMS platforms are presented below. Analysis of the qualitative data from seven English literature students at Persada Bunda Indonesia University revealed three overarching themes: (1) increased cognitive awareness of language learning processes, (2) the role of LMS tools in supporting psycholinguistic learning, and (3) the development of learner autonomy and metacognitive strategies.

#### 1. Increased Awareness of Cognitive Language Processes

Observation data from Zoom sessions showed that, over time, students displayed longer pauses before speaking, indicating more deliberate planning and formulation of responses. Early in the semester, many responded quickly but with grammatical errors; by mid-course, speech production was slower but more accurate, reflecting a shift toward conscious processing aligned with Levelt's (1989) Speech Production Model.

Reflective journals revealed a change in students' conceptual understanding of language production and comprehension. Initially, students associated language learning primarily with memorization of grammar and vocabulary. Through lectures, discussions, and activities based on psycholinguistic principles, they began to recognize the mental stages involved in speech, such as conceptualizing ideas, selecting appropriate words, and structuring sentences. As one student noted:

*"I used to just speak without thinking. Now I realize my brain is choosing the words, building the sentence, and preparing how I say it. That makes me feel more in control."*

Interview responses further confirmed this shift, with students reporting increased confidence and self-awareness in their speaking abilities. They linked this change to reduced anxiety and greater self-regulation in language production.

## 2. LMS Tools Supporting Psycholinguistic Processes

Across observation and document analysis, it became clear that each LMS platform played a distinct role in facilitating psycholinguistic learning: Zoom allowed for real-time discussions, closely simulating natural conversation. This encouraged spontaneous speech production, immediate feedback processing, and fluency development. Google Classroom acted as the repository for structured input, such as lecture notes, reading materials, and quizzes. These resources reinforced vocabulary acquisition, grammatical pattern recognition, and syntactic processing. Google Drive provided opportunities for collaborative writing, enabling students to review each other's work, compare approaches, and make revisions. This process supported deeper grammatical awareness and long-term retention. One participant reflected in a journal entry:

*"I like writing in Google Docs because I can think slowly and revise. I check what others write and compare it with mine. That helps me learn more."*

These findings are consistent with Krashen's (1982) Input Hypothesis and Swain's (1985) Output Hypothesis, highlighting the need for both rich input and opportunities for meaningful language production.

### 3. Development of Metacognitive Awareness and Autonomy

Reflective journals documented the emergence of metacognitive awareness, with students noting how they monitored their own learning processes, identified problem areas, and developed strategies to address them. This aligns with Flavell's (1979) concept of metacognition, where learners actively regulate their cognitive activities.

Interviews confirmed a shift in mindset:

*“Before, I was just studying English. Now, I feel like I’m studying how to learn English. I understand how my brain helps or blocks me sometimes.”*

Document analysis of written work showed progressive improvements in structure and accuracy, suggesting that self-monitoring strategies were being applied. Additionally, LMS features such as asynchronous access to materials and self-paced activities encouraged learner independence, supporting Kessler's (2018) assertion that digital platforms foster autonomy and digital literacy.

### Discussion

The findings of this study demonstrate that integrating psycholinguistic principles into LMS-based English language instruction can significantly enhance the second language learning experience. This result aligns with Nation and Newton's (2009) assertion that effective language acquisition requires a balanced approach involving input, output, and fluency-building activities. Within the course framework, each digital platform supported different psycholinguistic dimensions: Google Classroom facilitated structured linguistic input and task management, Google Drive supported reflection, revision, and peer collaboration, and Zoom enabled real-time language output and interactive feedback. These tools collectively enabled a comprehensive learning environment that mirrors the core processes involved in language acquisition.

Importantly, students reported an increased awareness of the psycholinguistic mechanisms underlying their language learning. By engaging with concepts such as working memory, error analysis, and language transfer in both theory and practice, learners were able to relate course content to their own experiences and challenges. This alignment between theoretical knowledge and lived learning experiences contributed to a more meaningful and cognitively engaging learning process. The students' ability to internalize and apply psycholinguistic concepts suggests a deeper level of metacognitive



development and autonomy, which are essential components of effective second language acquisition (Ellis, 2006; Lightbown & Spada, 2013).

Furthermore, the integration of psycholinguistics into LMS-based instruction aligns with current trends in learner-centered and blended learning approaches. Grounded in cognitive theory, this instructional model offers a valuable framework for institutions seeking to modernize language education through digital means. It also underscores the potential of psycholinguistic-informed LMS design in fostering both linguistic competence and strategic learning awareness. However, this study is not without limitations. First, the small sample size—limited to seven students from a single university—restricts the generalizability of the findings. The study's qualitative nature also means that results are context-specific and may not reflect broader patterns across different educational settings. In addition, the study relied heavily on self-reported data (e.g., reflective journals and interviews), which may be influenced by subjectivity or response bias. Future research could benefit from including a more diverse sample, employing quantitative measures to track language development, and examining long-term impacts of psycholinguistic integration across various LMS platforms. Despite these limitations, the study contributes to the growing body of literature that highlights the importance of aligning digital pedagogical tools with cognitive principles in second language education.

## CONCLUSION

According to this study, learning management systems (LMS) like Google Drive, Google Classroom, and Zoom can greatly improve English language acquisition by incorporating psycholinguistic principles. This is especially true for college students studying linguistics and literature. The research discovered that students developed a greater understanding of how their brains interpret language through a qualitative case study that involved seven students taking a psycholinguistics course. Better planning, self-monitoring, and reflection when speaking English are some of the enhanced metacognitive techniques they also developed. Every LMS platform contributed in a different way to the psycholinguistic elements of language acquisition. Google Classroom provided controlled language input; Google Drive promoted collaborative writing, peer review, and revision—all crucial steps for long-term memory and

understanding; Zoom allowed for spontaneous language production and real-time interaction. When paired with theories of cognitive learning, these resources demonstrated efficacy in facilitating language learning in a digital setting.

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