A Comparative Analysis of Phonological Processing Mechanisms in Bilingual Education Contexts

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Abstract. This study examines the competing phonological processing mechanisms employed within bilingual educational environments. Utilizing a comparative framework, data were collected through empirical observation and psycholinguistic testing among learners aged 9-15. The study reveals distinct patterns of phonemic awareness associated with language instruction methods. Results indicate that immersive strategies significantly enhance phonological acuity compared to traditional pedagogies. The findings contribute to the formulation of optimized bilingual curricular approaches aimed at enhancing linguistic competency in dual-language settings.

Keywords: Phonological processing, Bilingual education, Language acquisition, Immersive learning, Pedagogical strategies

Introduction

In the era of globalization and the pervasive influence of multilingualism, the ability to effectively navigate more than one language has become an essential skill. The teaching strategies employed in bilingual education systems are critical as they influence the extent to which learners can master phonological constructs across different languages. Phonological processing, a foundational aspect of language acquisition, includes the ability to discern, process, and mentally manipulate phonemes, the smallest units of sound that contribute to meaning in language. In particular, the cognitive demands placed on bilingual learners necessitate an understanding of how different teaching methodologies impact phonological development. Recent studies emphasize the need for educational frameworks that support phonological processing in two distinct linguistic domains, yet there remains a gap in the comparative evaluation of these approaches. This paper provides a

comprehensive analysis of the phonological processing strategies employed within bilingual educational contexts, comparing immersive and traditional pedagogical methods. By addressing these diverse methodologies, this paper seeks to elucidate the underlying mechanisms that optimize bilingual language acquisition. This paper is structured as follows: the next section reviews existing literature on phonological processing in bilingual contexts; this is followed by a detailed methodology section outlining the framework for empirical investigation. Subsequently, results are presented and analyzed, leading to a discussion on the implications of these findings for bilingual education policy.

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