



COUNTING SKILLS OF GRADE 1 LEARNERS: BASIS FOR AN ENHANCED ONLINE NUMERACY PLATFORM

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ABSTRACT

Foundational numeracy skills, particularly counting, are critical determinants of a child's future academic success in mathematics. This action research assessed the level of counting skills among selected Grade 1 learners across three public schools in Lipa City, Batangas—namely Bulacnin Integrated Elementary School, Marawoy Elementary School, and Bugtong na Pulo Elementary School—to serve as the structural basis for a proposed online numeracy platform. Anchored on Jean Piaget's Cognitive Development Theory and Benjamin Bloom's Mastery Learning Theory, the study utilized a descriptive research design. Purposive sampling was used to select the Grade 1 participants, and data were gathered using a validated survey questionnaire for demographic profiling (age, gender, and home mathematics exposure) alongside a 20-item researcher-made assessment tool aligned with the Department of Education's Most Essential Learning Competencies (MELCs). The diagnostic assessment evaluated three core components of early number sense: number recognition, basic operations, and pattern recognition. While the study's scope was delimited to the

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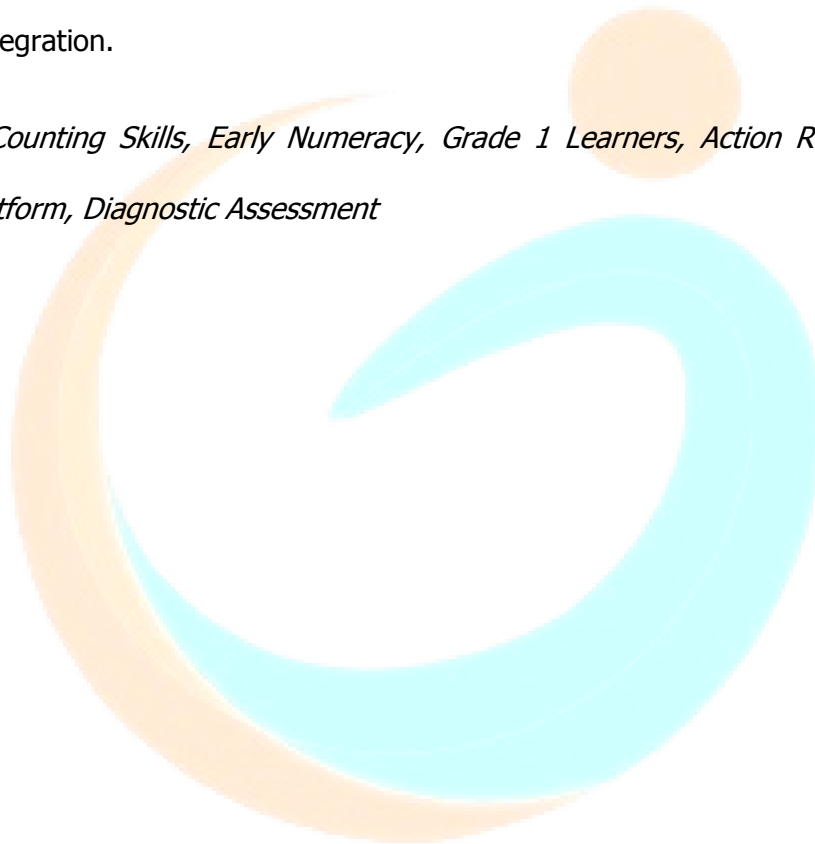
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assessment phase and did not include the technical implementation or testing of software, the resulting data directly inform the design parameters of an interactive, adaptive, and gamified digital platform. Ultimately, this research provides school administrators, teachers, and educational technology developers with a targeted, data-driven framework to bridge early childhood learning gaps and enhance localized numeracy intervention through intentional technology integration.

Keywords: *Counting Skills, Early Numeracy, Grade 1 Learners, Action Research, Online Numeracy Platform, Diagnostic Assessment*



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