The Impact of Digital Learning Tools on Student Engagement and Academic Performance in Primary School

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In recent years, the use of digital learning resources in educational institutions has increased considerably. Platforms such as Pearson Active Learn UK is transforming engagement in primary education, where these tools are rapidly gaining traction, reshaping classroom dynamics, and enhancing learning outcomes. This study investigates the influence of digital tools on literacy and numeracy performance, as well as student engagement among Year 1 students at Thomas Gall School in Galle, Sri Lanka. A mixed-methods approach was employed, incorporating quantitative data from Active Learn profiles and qualitative data from teacher questionnaires administered via Google Forms. The sample consisted of 68 students and four teachers. Due to weather-related closures, data collection spanned two weeks across three Year 1 classes (GG, HH, UU), incorporating both digital and non-digital activities. In literacy, students engaged with interactive e-books such as "Amazing Tree," "Dixie's Pocket Zoo," Brave the Waves," "Horribly: Slow and Sticky," and "Sea Snaps." For numeracy, gamified activities like "Starfish Strike," "Bingo!," and "Beetle Bump" were used. Non-digital tasks included spelling tests, sentence building, mind mapping, collages, and creating musical instruments. Completion rates demonstrated that Active Learn engagement was 26.63% (GG), 30.98% (UU), and 39.86% (HH), whereas non-digital approaches achieved higher rates of 51.45% (GG), 39.86% (HH), and 39.86% (UU). With an overall completion rate of 29.53% compared to 43% for non-Active Learn tasks, the findings suggest that traditional teaching methods are more effective for young learners. However, Active Learn, as a digital platform, still provides engaging, gamified learning experiences that can complement conventional instructional strategies. The teacher questionnaire highlighted the crucial role of teachers in implementing digital learning materials. Three out of four teachers (75%) observed improved student participation with Active Learn, though half (50%) reported ongoing engagement challenges. While student engagement increased, not all teachers felt adequately prepared, underscoring the need for targeted professional development and training. To our knowledge, this research is the first documented study in Sri Lanka to implement a digital platform like Pearson Active Learn in early primary education. It advocates for a blended learning approach that integrates digital

tools with traditional methods to improve learning outcomes, supported by Horn & Staker's emphasis on personalization and engagement. In contrast to literature promoting fully digital models, this study supports blended learning within the Sri Lankan context and offers recommendations to address early literacy challenges. Despite its promising findings, the study is limited by a small sample size and reliance on self-reported teacher data. Future research should involve larger, more diverse samples and adopt longitudinal designs to evaluate long-term effectiveness.

Keywords: Active learning, Academic performance, Digital learning tools, Primary education, Student engagement