

Smart Classrooms in Schools in Sri Lanka: A Case Study on the Design and Use of Smart Learning Space

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The integration of information Technology with the educational process creates smart learning environments that facilitate student engagement, teaching and learning and evaluation through physical and virtual classroom settings. The transformations in classroom settings through the adoption of information and communication technology is generally solicited as a means for improving the educational outcomes. The transformation of learning space from the traditional classrooms to smart classrooms is mainly characterized by the infusion of technology into the pedagogical process of schools. Smart classrooms are expected to address the issues and demands of present context of education that emerge through the changes in the elements of education: students; teachers; curriculum; available resources for the process and; the social background of the schools. In this context smart classroom were introduced in the schools in Sri Lanka since 2017. This study examined the design and use of learning space formulated by interacting axes of domains of smart class rooms: the architectural layout and ergonomic structure; integration of technology and; appropriate pedagogical methodology in smart classrooms. A collective case study approach is used to investigate the research problem. Four schools belonging to 1AB, 1C, Type II and Type III categories were selected from the Valikamam Education Zone of Jaffna district of Sri Lanka as cases. The findings from analyses of cases indicated that the teachers did not perceive much technology enhanced smart learning space in their smart classrooms, while principals are not fully aware about the key characteristics of the three-interacting axis of domains in design and use of smart learning space. The layout and ergonomic structure of smart classrooms is satisfactory except their interior topology and furniture, which is not conducive for interactive learning. Integration of technology is very limited with the basic digital devices available only for the use of teacher while the students are engaged in the lesson only with their exercise books that impedes student centered learning and interaction with teacher and class through the technological platform. The pedagogical methodology is not suitable as the teachers still follow traditional way of teaching without the innovative and creative use of digital devices and the internet.

Keywords: Smart classroom; Smart learning space; Transformation in classroom; Technology integration.