Chapter 3
Mainstreaming ADDIE Methodology in ICT Integration Lesson Planning and Delivery

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ABSTRACT

This chapter introduced an ICT integrated planning model based on the tenets of ADDIE as a sustainable educational change instrument to assist in aligning policy intentions to school-level practice. The first section described the conceptual design process of the RRIR ICT Integration Model and its connection to ADDIE. The second section presents the steps of the Model. The third section provided an application of the model using a primary school context scenario. The fourth section outlined the evaluation of the model using focus groups, where teachers used it for a school term to understand the teachers' perceptions, where results suggested that teachers favored a practicable systematic ICT integration planning guide for ICT Integration. However, teachers had concerns about planning time, essential conditions in the school environment to accommodate ICT, and the gap between Government policy documents and what is occurring at the school level for ICT integration.

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INTRODUCTION

Integrating Information Communications Technologies (ICT) into the classroom has become increasingly important in recent years. As ICT advances, educators must keep up with the latest trends and use them to their advantage (Gudmundsdottir et al., 2020; Huang & Teo, 2021; Şahin, 2003). The discourse on ICT in Education posits that ICT can provide students access to various resources, such as online databases, multimedia tools, and interactive learning activities (Buabeng-Andoh, 2019). Additionally, ICT integration can create a more engaging learning environment, as students can interact more meaningfully with each other and their teachers (Ramadhani et al., 2019). Furthermore, ICT integration can help improve student achievement by allowing students to explore new topics and develop their skills using the plethora of ICTs available for instruction (Ismail et al., 2020). Educators assert that this leads to more positive learning outcomes in the classroom once systematically designed by the teacher (Colliot & Jamet, 2021; Zhao, 2019).

Using systematic instructional design frameworks has a longstanding prominence in Education. A structured framework allows instructional designers to define learning outcomes explicitly, strategies, and assessments for a learning experience, and over the years, 21st-century learning has increased the need for adequately designed instruction that includes ICT. The current trend is for educators to ensure that their students attain the required curricula outcomes and effectively use ICTs to align with global education trends (Sumardi et al., 2020). An ICT integration model based on an instructional design framework can offer education systems a systematic educational change approach to sustainable ICT adoption at the school level (Budoya et al., 2019; Shakeel et al., 2022).

ADDIE is an acronym for Analyze, Design, Develop, Implement, and Evaluate. Within the Instructional Design field, ADDIE is typically referred to as a model or framework used when designing instruction (Allen, 2006; Molenda, 2003). However, Branch (2009) describes ADDIE as "a product development paradigm and not a model per se" (p.1) because when used during the design process, it facilitates the contextual environment for the learning product, which in this case is planning for the use of ICTs in the Caribbean school context.

SITUATION

From a Caribbean perspective, a systematic ICT integration model can benefit educators looking to integrate ICT into their classrooms. An ICT integration model can provide a frame of reference for Caribbean educators when planning, developing, and implementing ICT-integrated instruction at the classroom level. It outlines the