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## Towards integrated framework for efficient educational software development

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### Abstract

This paper proposes a framework for creating educational software systems that effectively meet student engagement and pedagogical goals. While different design methodologies have been used in developing educational software, most fail to satisfy the demands of users, stakeholders, and students, making it difficult to incorporate them into daily activities and support optimal learning outcomes. The proposed framework combines important techniques in Scrum, dynamic system development methods, and instructional design models. It comprises seven key phases: initial, instructional orientation, analysis, design, production, integration and implementation, and evaluation. The framework aims to guide the creation of educational software that successfully satisfies teachers' and students' demands and can be easily incorporated into teaching and learning procedures. We present the proposed framework components and compare them with other existing related models. Implementing the framework is expected to improve teaching/learning, reduce development costs and time.