

An Exploratory Assessment of the Pedagogical Effectiveness of a Systems Development Environment

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ABSTRACT

We employ the theory of technology acceptance to assess the suitability and fit of a new systems development environment, the .NET suite of technologies, as a pedagogical tool for teaching a technical information system (IS) course. The performance of students who adopted this technology for the completion of a class project requiring them to design and build an object-oriented distributed-system is compared to that of students who opted for the more conventional technologies (J2EE). Results of this study indicate that the factors that led to the selection of .NET over the other technologies were consistent with the technology acceptance theory: Those project-teams that opted for .NET performed as well as the J2EE teams on the implementation/deployment part of the project, but reported significantly less technical difficulties than those who used the conventional technologies. This study suggests the effectiveness of the technology acceptance theory and similar IT innovation diffusion theories as approaches for assessing the pedagogical fit and suitability of specific IT for teaching specific IS courses.

Keywords: Technology Acceptance Model, TAM, J2EE, .NET, Software Design