Searching for the Evaluation Indicators of U-learning Initiatives

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Abstract: The purpose of this study has two folds: 1) to develop indicators to measure u-learning experimental schools’ effectiveness; and 2) to test indicators by evaluating first year’s achievement of experimental schools. Overall, while there were differences among schools, the results of evaluation indicated that 10 u-learning experimental schools were improved in ‘infrastructure’, ‘teaching-learning strategy’, and ‘learning ability and organizational culture’

Introduction

There have been various efforts to integrate u-learning into the school curriculum for last decade. Korea’s Ministry of Education has implemented u-learning experimental schools for three years since 2007. This study identified indicators of effectiveness of u-learning project and evaluated first year’s achievement of 10 u-learning experimental schools (three elementary schools, three middle schools, and four high schools) in Korea.

Study Purposes

The purpose of this study has two folds: 1) to develop indicators to measure u-learning experimental schools’ effectiveness; and 2) to test indicators by evaluating first year’s achievement of experimental schools. Ultimately,
the results of study yield implications of research and practice of u-learning experimental schools. 10 schools (three elementary schools, three middle schools, and four high schools) participated in this project.

**Research Methods and Processes**

The schools are distributed in both in urban and rural districts. The school levels and regional characteristics resulted in different infrastructure especially at the beginning of the project. Further, students’ entry behavior and technology competencies were vary. While individual schools set the different goals of the project, there were common features. That is, the goals were to create learning environments to support self-directed learning and community building using u-learning technology (e.g., TPC, UMPC).

The process of the study as follows: First, initial indicators were developed based on literature review and analysis of the present conditions of u-learning experimental schools. Then expert review and focus group interview were followed to obtain validity. Next, survey was conducted to determine on 1) whether each indicator is mandatory or optional, 2) how important each indicator is, considering individual schools’ conditions.

**Findings**

With the modified indicators, evaluation on u-learning experimental schools was conducted. The evaluation tool mainly includes the complete surveys from students, teachers (leading teachers and non-participant teachers), parents, and principals. Indicators were categorized as ‘infrastructure’, ‘teaching-learning strategy’, and ‘learning ability and organizational culture’. Three main categories contribute to understand how u-learning experimental schools improved their education using u-learning. Indicators should focus on evaluating how u-learning experimental schools achieve the educational goal, not testing how effective u-learning practice itself is. ‘Infrastructure’ category measures the school has equipped with sufficient technology and human resources as a result of project. This category includes 1) educational context (i.e., (a) facility and technology, (b) internet connectivity, (c) human resources), 2) educational goal (i.e., (a) appropriateness, (b) feasibility, (c) perception of participants), 3) action plan (i.e., (a) budget plan and execution, (b) managerial support for implementation) and 4) training (i.e., (a) teacher training, (b) student training).

‘Teaching-learning strategy’ category measures teaching and learning strategies meet the project goals. This category includes 1) consistency with educational goal (i.e., how teaching-learning strategy reflect experimental school’s educational goal), and 2) support system such as usability, reliability, and just in time support (i.e., (a) support for teachers, (b) support for students).
‘Learning ability and organizational culture’ category measures whether the project enhances learning ability and teaching in meaningful way. It also measures how the project changes school culture. This category includes 1) learning ability and students’ satisfaction (i.e., (a) improvement of learning ability, (b) enhancement of students’ satisfaction) and 2) organizational competency and culture (i.e., (a) students’ change, (b) teachers’ change, (c) parents’ change, (d) principal’s change).

Overall, while there were differences among schools, the results of evaluation indicated that 10 u-learning experimental schools were improved in ‘infrastructure’, ‘teaching-learning strategy’, and ‘learning ability and organizational culture’

**References**


