

iUS: The University-School iPad Project

Faculty of Education | Department of Curriculum Studies

Lecturer: Dr Renee Nathanson rrn@sun.ac.za & Dr HM Wessels hwessels@sun.ac.za & N Edwards nedwards@sun.ac.za

Blended Learning Coordinator: Dr Sonja Strydom sonjas@sun.ac.za

Learning and assessment activity:
Flipped classrooms

Learning technology:
iPads

Page 1
Context

- Background Overview
- Student overview
- Established practice
- The challenge and possible advantages associated with the integration of technology
- Learning and assessment activities
 - Learning activities
 - Assessment activities

Page 2

- Learning environment
 - Support challenges
 - Student experience
 - General
 - Bibliography



Context

Background Overview

The Department of Curriculum Studies have approximately 1 000 B Ed undergraduate students in Reception, Foundation, Intermediate and Senior phases, as well, as post-graduate students. This project covered the English Teaching and Learning, Science, Mathematics in the Department of Curriculum Studies. It covers the methods and approaches in language and literacy instruction.

After successful completion of the module students understand a variety of different approaches to the use and integration of technology in the teaching of language and literacy, science and mathematics at foundation and intermediate phase level.

Student overview

There are approximately 200 B Ed foundation and intermediate phase students enrolled in the English Methodology course. Most of them come from Afrikaans or English language backgrounds. Since the lecturer teaches them from their third year onwards, they have all passed English second year. Most of them have access to personal computers, either at home or at the University. For the iPad project, a group of approximately 25-30 intermediate phase students will participate in the iPad project.

There are 89 and 79 students in the 3rd and 4th year Mathematics Education cohorts respectively. iPads will be used for group work in lectures and class work in both cohorts. Ten 4th year students will also use iPads to develop multimedia learning material for the fostering of mathematical thinking of Foundation Phase children.

Established practice

Students are taught the theory of reading and writing with different approaches and methods in English first language and English Additional Language. Mathematics are learned by understanding through a problem-centered approach by connecting theory and practice. Natural Science education is learned with a focus on physics and chemistry.

The challenge and possible advantages associated with the integration of technology

The challenge is to answer the question: what does twenty first century learning look like? By using iPads for teaching and learning, students are

engaged in a flexible and personalised approach to learning. This device allows students to express their creativity more productively and provides opportunities for seamless interdisciplinary learning. As students move between subjects and different venues iPads remain with them enabling them to store and reuse work in different contexts. It enables self-directed learning, open collaboration and cooperation between students.

Learning and assessment activities

Learning activities

Students used Apple TV and the sharing function of the iPad to 'show and tell' their work and demonstrations. Groups can give critique and create a community of learning in the classroom. The use of iPads also develop multimedia learning material for the fostering of mathematical thinking of Foundation Phase children, specifically mathematic storybooks. The flipped classroom model is followed in the learning activities.



Assessment activities

Surveys were completed in response to the Substitution, Augmentation, Modification and Redefinition (SAMR) model. This model offers a method of seeing how computer technology might impact teaching and learning. The Unified Theory of Acceptance and Use of Technology (UTAUT) framework was used to analyse data generated through interviews with the fourth year students involved in developing learning material (Venkatesh, Morris, Davis & Davis 2003).



iUS: The University-School iPad Project

Faculty of Education | Department of Curriculum Studies

Lecturer: Dr Renee Nathanson rrn@sun.ac.za & Dr HM Wessels hwessels@sun.ac.za & N Edwards nedwards@sun.ac.za

Blended Learning Coordinator: Dr Sonja Strydom sonjas@sun.ac.za

Learning and assessment activity:
Flipped classrooms

Learning technology:
iPads

Page 1
Context

Background Overview

Student overview

Established practice

The challenge and possible advantages associated with the integration of technology

Learning and assessment activities

Learning activities

Assessment activities

Page 2

Learning environment

Support challenges

Student experience

General

Bibliography



Learning environment

Learning took place in and outside of lectures. iPads, Apple TV, different apps and the internet was used as learning took place.

Support challenges

It would be ideal for each student to have personal access to a tablet for the duration of the iPad course instead of having to share iPad among student groups and across different subjects. From an infrastructure side, the strength of the WiFi and lack of internet access is challenging.

Student experience

Student feedback was collected through a survey, focus group discussions and responses to the SAMR model.

General

In the future, the iPad project will be expanded in the Faculty and to project schools. Short courses will be developed for educators using mobile technologies in education. Students and staff will need training on the use of iPads and on available apps for different uses.

Bibliography

Venkatesh, V., Morris, M.G., Davis, F.D. and Davis, G.B. 2003. User acceptance of information technology: Toward a unified view. *MIS Quarterly*, 27:425-478.

