

# International Conference ICT for Language Learning

## Learning Gains through Play in the Primary

### Abstract

The aim of this study has been to explore learning through the use of play in Grades R and 1 in twelve schools in two provinces in South Africa using innovative technologies. A benefactor of educational innovations, the D G Murray Trust funded SchoolNet South Africa to provide professional development to teachers on the effective use of the Xbox Kinect and a bank of Intel tablets.

Language is a contentious issue in South African schools. In only one of the LGP projects schools is English the language of learning and teaching (LoLT). That school has not been included in the oral English testing even though none of the learners use English as a first language. Seven of the ten project schools use mother tongue for instruction through Foundation Phase and then switch to English in Grade 4. We anticipate that the acquisition of English through the use of the tablet apps and Xbox games could make this language transition easier.

An Oral English scripted interview test is conducted one-on-one with each learner. All verbal responses and nonverbal actions are recorded on task scripts and scored according to rubrics. Results inform on listening and speaking skills. We adopted an additional measure (Oral Languages Stages 1-5) to provide identification of the Oral Language Stage. These stages are: 1. The Silent stage; 2. The Early Production Stage; 3. The Speech Emergence Stage; 4. The Intermediate Language Proficiency Stage and 5. The Advanced Language Proficiency Stage – Advanced Language Fluency.

It is important to understand the language protocols in both the project and the control schools in order to comment on the acquisition of English language results. In KZN, Oral English Skills were assessed in three project schools and one control school. In all four of these schools, the LoLT in Foundation Phase is isiZulu and in Grade 4 there is a switch to English as the LoLT. This is exactly the same situation in the three W-Cape project schools where Oral English Skills were assessed except that the Foundation Phase LoLT is isiXhosa rather than isiZulu. The control school in the W-Cape is different in that it is a dual-medium school and their achievement in Oral English Skills was much higher than those in all of the other schools tested, particular their speaking skills. For this reason,

our project school results are compared to both the full control group (KZN and W-Cape) and also the KZN control group who share the same school language protocol.

Intel tablets loaded with carefully selected apps are being integrated in learning activities to stimulate and enhance visual literacy skills. These include visual recognition, discrimination and interpretation such as sequencing, and visual memory, fine-motor skills including 'new' skills such as pinching, dragging, stretching and pinpointing to improve traditional skills such as drawing and handwriting and early number sense and numeracy skills using specific target apps.

Xbox Kinect game consoles use data-projectors and TV screens to engage learning through play and provide further opportunities to develop, practice and consolidate these important 21st Century skills along with gross-motor skills of locomotor and non-locomotor movement and object-control skills. As the apps and games use the medium of English, there is the added benefit that learners will acquire oral English skills, so vital for the transition from Foundation Phase to Intermediate Phase. The attitudes of motivation to learn, enjoyment of learning and confidence in learning are sought through the focus of the project on the use of play.

The heart of the study is how the development of these literacies is enhanced through play. Teachers have been excited to discover that the technology and games have been able to assist them to achieve the outcomes listed in the national curriculum. While teachers use these apps and games to identify teachable moments and stealth learning opportunities that target specific literacies, they will be recording and rating the effectiveness of each app and game, resulting in an anthology that will be of value to all Foundation Phase educators who are integrating technology.