Pedagogy enabled through technology: using augmented reality effectively through mobile devices in the ICT learning environment

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**BACKGROUND**

» New emerging devices and virtual environments offer exciting new opportunities for creating innovative learning communities for students.

» Interactive learning environments such as Augmented Reality (AR) are considered as a promising strategy for providing instructional content that allows the learner to engage actively in the learning process.

» Through virtual environments, learners can collaborate or work individually towards enhanced learning outcomes in a learning process activity (Wang et al. 2013).

» Giving permission to multitask using mobile computing devices in a controlled fashion could benefit students to improve learning outcomes, student performance, and motivation.

**TECHNOLOGY/APPS**

» AR-based Learning can run on standard mobile devices such as smartphones, PC tablets, iPads, iPhones using a downloadable application.

**RESEARCH METHODS**

» Pre-assessment interview and discussion with students to determine level of knowledge and competence

» Evaluation of students level of knowledge and understanding using learning materials embedded with AR compared to students taught via a traditional approach.

» Validation of all learning activities involved for consistency and effectiveness

**EXPECTED RESULTS**

» Overall student learning and engagement improvement and success compared to students using non AR embedded learning materials

» Significant benefits in terms of pedagogical effectiveness and experiential and collaborative learning processes by using AR

**REFERENCES**