

Influences of the ecological systems theory influencing technological use in rural schools in South Africa: A case study

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ABSTRACT:

This paper aims to provide evidence of how the ecological system theory was applied to influence teachers in rural schools in South Africa to use technology in their classrooms.

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Abstract—This aims to provide evidence of how the ecological system theory was applied to influence teachers in rural schools in South Africa to use technology in their classrooms. The ecological systems theory stems from psychology to indicate all the issues in a system that can influence childhood development. This was adapted to be applied in one case study (two schools with 23 teachers) to indicate how it can be used to develop the teacher's use of technology in their classrooms. The methodology that was applied is a qualitative case study with phenomenological research as philosophy. Data was analyzed by using data triangulation. The qualitative data gathered using an open-ended questionnaire, semi-structured interviews, audio-visual material and observations were applied and within case analysis was done. Software which was used, was Nvivo 10 for coding purposes. The results indicated that the two levels which influenced the teachers the most was the individual, micro and meso levels in their pursuit to use technology in their classrooms. They were concerned about societal views and political tensions in their province and in the country and indicated these as important for sustainable use of technology in their classroom in future.

countries.

In South Africa, just as in many other African countries there is the view that ICT offers great promise of being the universal remedy that will create an opportunity for unprecedented economic growth, control pandemic diseases, create distance education opportunities, give impetus to the democratization process and good governance, and leapfrog countries out of economic stagnation [3-5]. The reality is that Africa is plagued by numerous undesirable inhibiting factors and has to focus on some key priorities such as the combat against HIV/AIDS, poverty and illiteracy, political uncertainty, weak ICT infrastructure, poor policy and regulatory frameworks and limited human resources [3, 6, 7]. In South Africa, in 2004, the White Paper on e-education [8] was provided to be the first formal education policy on ICT. It paved the way for ICT implementation in South African schools.

ICT should be used as a resource for whole school development to improve productivity, management and administration; curriculum integration and delivery,