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Title: The effect of Earobics® (computer-based programme) intervention on the language, phonological awareness, reading and spelling skills of pupils at-risk (including pupils with special education needs) in our mainstream school
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Abstract

Reading is an important outcome leading to academic success in life. Young children who do not benefit from early literacy intervention are those with phonological processing deficits; facing difficulties in naming letters, poor vocabulary and poor recognition of sight words (Al Otaiba & Fuchs, 2002).

Recent developments see the rapid rise in using technology software as a power tool in helping early literacy learners in reading and writing skills (Parette et al., 2009). Best practices in emergent literacy instruction support skill development in five key areas: phonemic awareness, word recognition, concepts about print, alphabetic principle and comprehension (Parette et al., 2009). Parette (2009) cited that computer based emergent literacy is more effective to young children with disabilities (cf. Campbell et al., 2006; Dugan et al., 2004; Floyd et al., in press; Judge, 2006). Research studies have shown significant benefits in emergent literacy in phonemic awareness, word recognition and comprehension using software which has been field-tested (Hutinger et al., 2006; Karemaker et al., 2008; Parette et al., 2009).

Hence, this local study investigates the effectiveness of using such software tools such as Earobics© to support young children referred for reading difficulties. This current study explores Earobics© -intervention within a clinical setting (see Appendix A). The setting presents a host of challenges; both methodological and theoretical that can have a better understanding of young learners in a mainstream school.
This exploratory study included the selection of thirty participants from the Learning Support Programme (LSP) referred for reading difficulties. Using a between-group pre- and post-test design, this study compared two groups – an experimental group with Earobics© intervention and control group. Both groups are in the LSP programme. The experimental intervention uses Earobics©; an interactive software programme in addition to the current LSP.

This paper outlines the pilot study of using Earobics© software as an extension to our current Learning Support Programme. It looks into the use of a technology tool for early intervention in literacy skills and explored the possibility of including Earobics© in the current curriculum in mainstream school. Official correspondences were sent to the teachers whose pupils are on the Earobics© intervention (see Appendix B) and regular progress meetings were conducted (see Appendix C). A reflection on the questions raised by fellow classmates in the Master of Education (Special Education) programme during the presentation at National Institute of Education on 20th April, 2011 was done (see Appendix D).

Results indicated that the Earobics© -intervention contributed significantly in improving the phonological awareness and auditory processing skills when used as an additional support to current LSP within the exploratory test that was conducted for this study.