

***Using ICT to enhance learning outcomes for pupils
with a Mild General Learning Disability.***

Learning Theories Assignment: Position Paper

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Abstract:

This paper will examine how ICT can be best deployed in the area of special needs education for pupils with a Mild General Learning Disability. The effective use of ICT as a learning support should benefit all pupils but particularly pupils assessed as having a MGLD. Today's pupils are digital natives yet many are untouched in their learning by the impact that ICT has had on society at large. Many teachers working in SEN are digital natives too but not all. For ICT to be deployed effectively teachers must be equipped to maximise its potential to enhance learning outcomes. The individual pupil can be enabled by constructive use of ICT to improve achievement but ineffectual use of ICT can prevent the pupil from maximising their learning potentials.

Introduction:

Can ICT help to individualize learning so that learners can be successful? If the answer to this question is yes, particularly for individual pupils with a Mild General Learning Disability, then ICT has a valid part to play in the pedagogical methodologies devised for their learning. This is what special education should be about, the individual pupil and their presenting educational needs, as stated by Woodward and Rieth (2007). Consistent evidence (ICT and Attainment, Cox et al, 2003) shows that ICT can and does improve learning outcomes, particularly in the core subjects of English and Mathematics.

The concept of differentiation, 'learning things differently according to observed differences among learner' as defined by Westwood (2003), is important in the structuring of learning strategies for these pupils. ICT can provide support for the provision of differentiation for these pupils to enable them to achieve to their abilities. In the area of MGLD the class sizes are smaller and the curriculum strands are micro managed in that the material is delivered at a slower rate and time is allocated for revisiting and reinforcement. Learning targets are set on

a weekly basis and ICT can provide cross-curricular support in areas such as English or History.

The main question addressed in this paper is how ICT can be best deployed to enhance the learning outcomes of pupils with a MGLD and what strategies should be employed to bring this about.

ICT and Pupils with MGLDs who undertake the Junior Certificate School Programme

The Junior Certificate School Programme (JCSP) allows pupils to study ICT as a stand alone subject. There are specific learning targets to be achieved and pupils can earn DES certified statements of achievement in ICT. Their educational assessment means that these pupils can present with a multiplicity of characteristics, all of which can militate against effective learning. They will all have experienced degrees of failure within the educational system as a result and may be de-motivated. That failure is often manifested in their difficulty in learning how to read. According to a study by Doty, Popplewell and Byers (cited in Roblyer, 2003, p.168) students' ability to answer comprehension questions were higher when they read stories in an electric storybook format than when they read a traditional book format.



Paired Reading?

The JCSP provides a new format which attempts to address any deficits they may have in their learning abilities and ICT can play a significant role in their future learning. Pupils will have had experience of 'paired reading' in their primary schooling and ICT can provide a variation of this using 'read along' books, such as the "Wellington Square" reader series. The

tutor is replaced by the appropriate software book and the tutee now controls the learning process. This may not be exactly what Bruner (cited in Ferguson, 2001) had in mind when he said that constructivism is a teacher-facilitated process that places the pupil at the centre of active learning. The software allows the pupil to control the process, to have individual words or whole sentences read to him or to read to himself, prompted by highlighted unspoken words. This is differentiation in action in the classroom, with the pupil in charge of his learning, controlling its level and pace, and the teacher there as facilitator. According to Grabe and Grabe (2004), this is a unique value that technology brings to the learning process in the area of individualization. Once the pupil has read the book there are various exercises available to evaluate the quality of his reading ability and to test his comprehension of the text. Using ICT, the exercises which assess the pupils' learning can be constructed by the teacher in a format that appeals to the pupil, as informal and even entertaining, as a game might be.

The learning outcomes possible for the pupil using ICT in this context include:

- Pupil will increase sight vocabulary and keyword recognition.
- Pupil will complete comprehension exercises.
- Pupil will complete phonic worksheets.
- Pupil will successfully read a short book.

Coupled with these learning outcomes in literacy will be learning outcomes related to ICT and its successful usage for learning. Skills such as specific language terms in ICT, hand-eye coordination when using the mouse to navigate and control pages, and usage of fine motor skills, can all be improved in this method of enhancing reading ability. There is also what Papert (1980) calls the "holding power" of the computer which he considers as a useful educational tool and which may have positive effects on pupils with ADHD issues.

ICT: Possible limitations when working with pupils with MGLD.

Good, effective software, like a good book, is not always obvious by its packaging or blurb. A piece of software may be effective for a specific learning objective with one pupil but not with another. Woodward et al (cited in Florian, 2004, p10) stated that 'simply because a program or approach has been validated by research does not necessarily mean it will be used as intended in practice'. While many of the software programmes available were portrayed as special tutors to the individual pupils and supposedly offered an alternative learning strategy, this was not the case. Many of the software packages were not age appropriate for the pupils with MGLD and this had a negative effect on motivation. The software only served to emphasise the pupils learning deficits.

An effective individualized learning program, such as the read along book mentioned earlier, will usually produce positive outcomes for the pupil but the teacher must not forget that the pupil must be afforded the opportunity to participate in group activities, as Florian (2004, p12) states: 'A balance needs to be struck between the benefit of working individually at one's own pace and the isolation that some learners experience when such an emphasis precludes participation in group activities'. This is an important point as pupils with MGLD, particularly those who attend special schools, often experience isolation from their peers in mainstream. According to Papert (1980) some critics of ICT argue that as computer literacy becomes more necessary for everyday social and economic interaction, the risk of greater isolation increases, particularly for those at the lower end of the socio-economic ladder.

In assessing ICT the teacher needs to recognise that ICTs have, as Means (cited in Florian, 2004) states, no value in and of themselves and holds that ICTs have value only in the educational activity that makes use of them, and this activity must be planned by the teacher.

Conclusion

ICT can be a definite benefit for pupils with a MGLD provided it is used effectively. To do this teachers must become skilled in the area and prepared to experiment to create suitable situations for pupils to become active learners. For pupils of the JCSP, ICT is both a new innovative learning tool and a subject in itself. According to Hardy (cited in Florian, 2004) ICT is considered as a means to accessing the curriculum in general. For JCSP pupils, having ICT as a subject should provide a level of computer literacy which allows cross curricular support for learning in all areas of the curriculum. However, as Means (cited in Florian, 2004) points out, the full potential of ICT in Special Education depends greatly upon teachers, and their abilities and sensibilities to employ ICT in their classrooms. For teachers to do this there must be a more obvious commitment by government to fund the up-skilling of the current teaching population, many of whom are not digital natives. The National Council for Technology in Education has been tasked by the government with providing 10,000 training places for teachers each year (Hanafin, 2007). However, teachers can only avail of the majority of these places outside of their working hours and attendance is on a voluntary basis, which queries the quality of the government's commitment to ICT in education in general. The full potential of ICT in Special Education will not be realised without this commitment.

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