



DART development
autism
research
technology



East Park iPad Project Report: 2013/2014

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Broadly, technology is no different from any other tool. The power comes not from what it is, but rather how it is used.

(Ayres, Mechling & Sansoti, 2013, p. 216)

Acknowledgements

This is the executive summary of the East Park iPad Project (EPIP) report so first and foremost I would like to thank the management at East Park in Maryhill, Glasgow, for their invitation to conduct this research and for their constant help, co-operation and support throughout the academic year.

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1.0 Background

This research report has been prepared by Sinéad O'Brien, an Educational Research Masters student from Moray House School of Education, at the University of Edinburgh.

The research project was conducted at East Park, which is a registered charity based in the Maryhill area of Glasgow. Since 1874 East Park has provided both education and residential care facilities to children and young people with additional support needs, and more recently autism spectrum disorder.

At the beginning of the 2013 academic year East Park received funding for the purchase of 21 iPads. The iPads were to be used as education aids for specific students with the main aim of developing communication skills. The University of Edinburgh was then approached and asked to provide an independent evaluation of the first year of the East Park iPad Project (EPiP).

iPads are increasingly being adopted to educational settings. To date, most evaluations investigating the incorporation of the iPad in schools have focused on its effectiveness as educational tool and the positive outcomes it has for students. However, few studies have explored the influence of the teacher on the successful implementation of iPads. Furthermore, no known study has examined the impact that the presence of the iPad has on teachers and their pedagogy.

This research explored these topics and addressed the following questions:

1. Can iPads be used effectively in a classroom for students with additional support needs?
2. How do teachers influence the effective use of iPads to support students learning goals?
3. How does the introduction of the iPad affect teachers own practice?
4. Are there factors, outside the classroom setting, which influence the effective use of an iPad?

The participants for this study were in two groups: teachers and students. All seven class teachers took part in the study. In addition to this, the iPad coordinator who was responsible for selecting the students and the apps was also a participant. A total of 20 (N of boys = 15) students, whose mean age was 15.05 years were included in the research project.

The research data was drawn from an interview with the iPad co-ordinator and from interviews with the teachers at three different time-points across the academic year.

2.0 Key Findings

At the beginning of the project the teachers showed interest in the iPad, and a willingness to incorporate it into their classrooms. They identified specific goals that they thought the iPad could be used to target. These included enhancing communication and developing life skills and independence. Following the introduction of the iPad, it appeared that the pace and way in which the iPads were being incorporated was not always as predicted. A number of key outcomes were observed, which include:



1. Increased student independence and responsibility.
2. Increased student engagement in, and enjoyment of, independent work and homework.
3. Increased academic motivation, attention and focus. However, towards the end of the year there was a slight reduction in student motivation which could have been due to repetitive use of the same apps
4. Certain lessons, such as technology lessons, became less staff-intensive and staff-dependant.
5. The teachers benefitted from the presence of the iPad, using it as an organisational tool, as a means of repeating lessons, to collate evidence of academic work and student progress, for quick internet searches, playing music in the classroom, and to take photos and videos of the students.
6. Enhanced classroom dynamics and an improved classroom environment were noted in some classrooms.
7. The iPad was found to be easier to navigate than other classroom technologies.

Despite these positive results it is also important to point out that not all of the students benefitted fully from the introduction of the iPad. For example, students who work at a sensory level required constant staff support when using the iPad. These students had a difficulty independently navigating the iPad and often appeared to be unmotivated by the iPad. This in turn made it difficult for the teachers to know how to progress academically with the iPad when working with these students.

3.0 Influences on the Successful Implementation of the iPad:

1. The EPIP coordinator's understanding of the students' interests, ability, clinical diagnoses and appropriate apps resulted in both teacher and student satisfaction with the iPad
2. Few teachers reported having previous experience using the iPad as an educational tool. Through organising an IT day, teachers' levels of confidence in their ability to use the iPad and certain complex apps increased. Many of the teachers expressed an interest in having more IT training days specifically for the iPad.
3. Teachers taking the initiative to become involved in the project was identified as an important influential factor. Different types of teacher initiative were identified:
 - a. Taking personal time to learn how to use the iPad and the apps appeared to increase teacher confidence in their ability to use the device as an educational tool.
 - b. Taking time to ensure that students had the skills necessary to navigate the iPad.
 - c. Considering appropriate timetabling of the iPad.
 - d. Persisting with the apps or using an alternative teaching method with the iPad. In most cases this resulted in positive outcomes for students who had been uninterested in the iPad.
4. Students who displayed an ability to independently use the iPad encouraged teachers to learn to use the iPad, apps and how to integrate them effectively into the classroom.
5. The use of the iPad was also found to be inherently linked to the apps, and so for the iPad to be effective and beneficial, appropriate apps needed to be chosen. The suitability of the apps and their successful use depended on certain inherent features such as having:
 - a. Multiple functions
 - b. Different levels
 - c. Immediate response to touch
 - d. Age and stage appropriate features
6. Peripheral features such as protective covers and the need to charge the devices on a constant basis also influenced the effective use of the iPads. In addition some of the



teachers encountered technical faults with certain apps which made it difficult to use the iPads effectively.

7. Interestingly, some of the teachers revealed that they may not have persisted with the iPad had its use not been attached to research.

4.0 Future Recommendations:

1. Include teachers in the app selection process or transfer full responsibility for this to each teacher.
2. Provide regular IT training days for all the staff including ones which specifically focus on how to use the iPad and apps.
3. As a means of improving the integration of the iPad, by raising teachers' familiarity with it, teachers could be provided with their own personal iPad before introducing it into the classroom.



5.0 Answering Our Questions

The research was framed by four research questions which emerged from and were answered by the data gathered from the interviews.

1. *Can iPads be used effectively in a classroom for students with additional support needs?*

The iPad is first and foremost a personal device which has merely been adopted to educational settings. However, in this study, the teachers reported that the majority of the students enjoyed and were interested in using the iPad. One important long-term goal for East Park is to increase student independence. At the mid-point stage of the project about half of the teachers noted an increase in student independence. Some of the teachers remarked that certain lessons had become less staff-intensive and increased student independence appeared to result in the iPad becoming an established homework aid. Furthermore, at the end of the academic year certain teachers had also noted that an increase in independence had produced increased levels of responsibility among the students which they appeared to enjoy.

The iPad also became a beneficial pedagogical aid for the teachers. Over the course of the year a number of beneficial uses for the iPad were identified by the teachers. These included: easy access to music, quick internet searches, increased control over technology lessons and the use of the camera and video to collate evidence of student behaviour. The presence of the iPad was also seen to improve classroom dynamics and student participation.

However, it is important to note that the iPad is not necessarily the ideal educational tool for every student.

2. *How do teachers influence the effective use of iPads to support students learning goals?*

Teachers played a key role in the successful implementation of the iPads. Despite the majority of teachers having little previous experience they ensured that the iPads were integrated into the students' learning in an effective way. Many of the teachers took the initiative to transform their pedagogy and persist with the iPad which often resulted in increased student engagement with the iPad.

3. *How does the introduction of the iPad affect teachers own practice?*

It is clear that the presence of the iPad causes teachers to develop their teaching practice or re-think their approach to engage students with technology. Throughout the academic year teachers had to modify their teaching approach and class structure to accommodate the iPad. Interestingly, students' reactions to the iPad and ability to use the device appeared to have an impact on the level of teacher involvement and this is something which needs further investigation.

4. *Are there factors, outside the classroom setting, which influence the effective introduction of an iPad project?*

Many of the teachers conveyed satisfaction with the apps that were chosen, which was attributed to the EPiP coordinator's knowledge of the students' interests, abilities, and clinical diagnoses. In addition the provision of an IT training day appeared to benefit the teachers by increasing their confidence and improving their ability to use the iPad. Interestingly, the teachers also reported being inhibited or influenced by the presence of a researcher and by the attachment of the project to a research study, but it is hard to identify precisely how this impacted on the findings.

6.0 Conclusion

Overall, the implementation of individual iPads has been a success. The majority of teachers and students enjoyed using the iPad and experienced a range of benefits. The manner in which the iPads were integrated by the teachers in East Park can provide a useful and beneficial guideline for schools wishing to implement an iPad programme with larger numbers of individual learners. The staff at East Park welcome any contact from teachers, other professionals or organisations who are interested in learning more about the East Park iPad project.

Further Information

For further information about the East Park iPad Project please visit the DART website: www.dart.ed.ac.uk or contact East Park directly on 0141 946 2050 or at enquiries@eastpark.org.uk

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