

Chapter 11

Integration of iPads into Early Childhood Classrooms

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Abstract This paper explores the place of technology, and especially iPads, within the classroom. In every placement I saw teachers hand students iPads during maths lessons for them to play games. This really irritated me, since despite my admiration for my mentor teachers I assumed that part of the reason for the iPads was laziness. My early observations of children using iPads in mathematics also produced negative feelings because I saw brilliant mathematical apps being used as guessing games and turned into mindless tasks, and I found that there was a lack of teacher training in relation to technology and the use of iPads. Even so, I found that technology, and particularly iPads, can enhance and enrich the classroom by creating daily opportunities to give students a better understanding of the mathematical concepts being taught. From my observations, the iPad does not have the potential to teach new concepts effectively, but it is great at providing revision for students. However, for students who only see iPads as a game, instruction in the use of iPads in the classroom needs to be a part of lesson planning. The problem is that most schools are under resourced in terms of technology and there is a lack of teacher training in how to effectively use technology in the classroom. This can be changed by teachers taking responsibility for their own professional development and teaching one another.

Journal entry, May 2012:

Today was the first time I entered a primary school classroom in well over 10 years. I could not believe how much it had changed. After putting their chairs down and lunchboxes in the fridge, students all walked towards the smart board, selected the bubble that had their name in it, and moved the bubble upward to show that they were at school. Students then sat down and went through the whole morning routine from marking the roll to writing notices on a smart board. Throughout the whole day technology was integrated into the classroom. The teacher used the smart board for behaviour management and used 'computer time' as a chance for students to blog. During maths, one small group were even given iPads to work

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on. It all seems so foreign and different to me and I am a little unsure how I feel about technology in the classroom.

Introduction

I am a young women, wife, pre-service teacher and university student. I have lived in Darwin for almost 4 years and feel that I am just coming to understand what it is to teach in this diverse society. My practicum experience has been in local public schools, in Northern Territory Christian schools and in a remote community school. Each experience has opened my eyes to the different aspects of education, living and teaching in the Territory. I also have a military background, which has shaped the way I think and the approaches I take to teaching and to life.

Education has greatly changed since I went through school. Technology was beginning to enter the classroom as I began my schooling, but it was happening at a very slow pace and always a step behind where technology is today. Today there is a huge push for teachers to creatively integrate technology into all areas of education, yet from my observations this is happening without proper training and the support that is required. This is something that has not changed and most classrooms are still a step behind where current technology is up to. Thus, what I will explore throughout this paper is whether technology, primarily iPads, has a place within the classroom. If so, how do teachers effectively integrate iPads into the mathematics curriculum in a way that enhances student learning?

Who Did I Think I Was?

Growing up in a family where the TV was watched only once a week for a specific children's program and where assignments had to be written perfectly before you were allowed to use the computer to type them up, the idea of technology being a constant part of the classroom was foreign to me. In every placement I saw teachers hand students iPads during maths lessons for them to play games. A part of this really irritated me. I thought all my mentor teachers were amazing and had definite areas of strengths, but I assumed that part of the reason for the iPads was laziness.

My early observations of children using iPads in mathematics led to negative feelings about their use. I saw brilliant mathematical apps being used as guessing games and turned into mindless tasks. Children were not using some of the apps as intended and this raised questions: Do students not feel confident to complete the tasks given to them? Do students see the iPad as a game and not an educational tool? Or have the students not received the correct instruction on how to use the tool as required? A journal article by Murphy (2014) stated that students had the tendency to view iPads as toys, and for this reason iPads were being exchanged for Chromebooks as they were seen as a more effective educational tool. iPads are

increasingly available and therefore students who have access to one outside of school may have the predisposition to see them as toys.

In addition to this, my observations have shown that there is a lack of teacher training in relation to technology and the use of iPads. Being a pre-service teacher and completing current teacher training, I believed that universities were not giving upcoming teachers the knowledge and skills required to effectively integrate technology into the classroom. Universities placed a high importance on the use of technology in the classroom, but in my opinion did not give students the skill set required to effectively use technology. This effectively left mentor teachers as the ones to show their pre-service teachers how they used technology and iPads in the classroom, but often they had not been trained in their use either. A study by Leh (cited in Okojie et al. 2006) revealed that teachers admitted that they did not resist technology but agreed they could not fully integrate it into their own teaching practices due to organisational, administrative, pedagogical or personal constraints.

How Do I Think I Am?

I believe the more you learn about certain topics, the more you discover what you do not know and need to learn. This is certainly true of my faith and true in regards to teaching. I once thought teaching was a simple task—the teacher teaches, the students learn—but I now realise that there is much more to the profession than I once thought.

Technology, particularly iPads, can enhance and enrich the classroom in a way that I never imagined possible. Fletcher (in Okojie et al. 2006, p. 87) describes technology perfectly:

When you go to the hardware store to buy a drill, you don't actually want a drill, you want a hole. They don't sell holes at the hardware store, but they do sell drills, which are the technology used to make holes.

iPads are an amazing tool that creates new opportunities daily to give students a better understanding of the mathematical concepts being taught. I have now come to see the iPad as an additional teacher within the classroom. Whilst the iPad from my observations does not have the potential to teach new concepts effectively, it is great at providing revision for students. In conversation with fellow teachers one made a comment that stood out to me:

iPads are fantastic at repetition games and children in their early years of education need repetition in order to learn simple concepts such as basic facts. Children are engaged by iPads so if you can find good apps that encourage repetition, the students will be able to learn. This also allows teaching time to be used for the more complex areas of mathematics, leaving the iPads to teach basic number knowledge.

Even over a hundred years ago, Ebbinghaus (1885) described the effectiveness of repetition and stated that repetition over time is really beneficial.

iPads are not used every day by students in my current classroom. They are used to complement other small group activities, including manipulatives, games and teacher instruction. Having variety along with repetition allows students to gain knowledge in a number of ways to be able to completely understand the concept.

Further from my early observations and the questions first raised I have come to realise that it is a combination of all these ideas. For some students they only see iPads as a game, so instructional teaching in the use of iPads in the classroom needs to be a part of lesson planning. From my observations I have seen that without the correct instruction on how to use each app, students can feel lost, although when comprehensively shown or one-to-one demonstration is completed, students can effectively use the tool. Comprehensive instruction needs to be implemented at the introduction of a new app and there should be a quick review every time it is to be used. As stated earlier, repetitive tasks for junior primary students allow them to practise over and over until eventually they know them off by heart. Therefore the continuous use of iPad apps along with other activities will give the students the knowledge and confidence to answer questions and learn the right answers.

My opinion in relation to the lack of teacher training and schools being under resourced has not changed. Limitations to finance, as well as recent budget cuts, constitute a restraint on the amount teachers and schools have to invest in the use of technology. Whilst most schools have brilliant technology, teachers are unsure how to use it and it is often left unused. A major factor in this is teacher confidence. Topper (cited in Okojie et al. 2006) believes that for teachers to use technology in support of their teaching, and to see it as a pedagogically useful tool, they must be confident and competent with the technology they are planning to use. I truly believe if teachers try different strategies with technology they will discover the ways in which technology works effectively in the classroom.

Of This Much I Am Sure

The journey to understanding the place for iPads in the classroom has been an exciting one where I have discovered more than I thought I would, and my perceptions have completely changed. Going from a naive state of confusion to a place where I understand the use and see great purpose in iPads has been a freeing experience. I know I would have greatly struggled to implement something into my classroom that I did not completely agree with and did not understand. Of this much I am sure, that seeing how perfectly it can complement what I as the teacher am doing and how it can effectively act as an additional teacher gives me great reason for excitement, and great courage and joy.

A recommendation from my discoveries is that Math Slide, Sky Numbers HD and Math Evolve are brilliant apps for children to use. I am sure that given the correct introduction and the correct teaching around iPads, students would feel confident to experiment. The more they are exposed to the app the more confident they will feel to give it a go.

Of this much I am sure, that what did not change throughout my journey is the knowledge that most schools are under resourced in terms of technology and there is a lack of teacher training in how to effectively use technology in the classroom. This can be changed by teachers taking responsibility for their own professional development and teaching one another. I have seen teachers and schools do this, and it is fantastic when teachers bring a piece of technology to staff meetings and demonstrate to their colleagues how they use it within the classroom. I believe this is the best way with limited time and resources to expand the use of technology and increase teachers' confidence.

Conclusion

This journey has been both unexpected and interesting in a highly positive way. Reflecting on the journey, I was able to understand where I stood in relation to iPads in the classroom and see how this has changed my ways of thinking and my teaching approaches. Throughout this journey, I have identified that my previous stance on iPads in maths would be how most current teachers feel. Having researched and effectively understood how iPads can assist in classrooms, I believe I can now assist in educating and providing confidence to other teachers in the use of iPads in a way that enhances their classrooms.

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