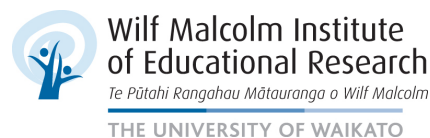


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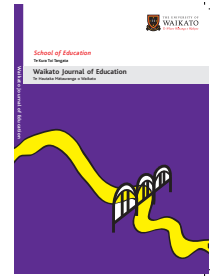
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The impact of digital technology on children's transition from kindergarten to primary school: Bringing concepts from international research and practice to Saudi Arabia

Dalal Mohammed Al-Hezam

The University of Waikato
New Zealand

Abstract

Moving from early childhood education (ECE) to primary education is considered a critical moment both in the life of a child and in their educational trajectory. Commonly utilised digital technologies such as television, videos and computers can be used to support children and their families to make a more successful transition from ECE to primary school (Radich, 2013). Both the transition from ECE to school and the use of digital technologies in education have been little explored in Saudi Arabia. While I planned to use a sequential exploratory strategy for the data collection phase (Ivankova, Creswell, & Stick, 2006), to explore these two areas, I found that constraints in my context meant that I could only carry a survey of ECE teachers. Nonetheless, this was useful primary data for exploring the perceptions, ideas and experiences of the teachers in Saudi Arabia. This data helped me to draw out many interesting responses from the teachers. Teachers in Saudi Arabia's kindergartens generally recognise the importance of transition for children and do identify the many benefits of digital technology for transition purposes. However, many teachers also feel that a lack of clear curriculum guidelines, inefficiency of teachers and non-cooperation by parents create impediments for successful transitioning of children in kindergartens to primary school.

Keywords

Digital technology; transition; early childhood education (ECE); Saudi Arabia

Introduction

A period of change in a person's life can be known as a transition and can occur at different phases of life; moving from early childhood education (ECE) to primary education is one such transition, which is both exciting and challenging. This transition is considered a critical moment both in the life of a child and in their educational trajectory. As Fabian and Dunlop explain,

The way transitions are experienced not only makes a difference to the children in the early months of a new situation, but may have a much longer-term impact, because the



extent to which they feel successful (emotional and well-being) in the first transition is likely to influence subsequent experiences. (2007, p. 2)

New Zealand shows a strong commitment to supporting this transition. The government has recently commissioned a comprehensive report for ECE and the school sector (Education Review Office, 2015). The report looks at children's experiences moving from early childhood services to schools, from the points of view of both. From these experiences, the report suggests a number of important principles that focus on the relationships between the ECE service and the school, between these organisations and families and, most importantly, these organisations and the children themselves. Given this article reports on a masters research project, it has a particular focus—the role of digital tools in developing these relationships.

Transition from ECE to school and the role of digital technology

The transition from ECE to primary education requires adjustments by teachers, children and families, to deal with new roles, interactions, expectations, identities and relationships. Peters, Hartley, Rogers, Smith, and Carr (2009) stress that both ECE and primary education teachers need to be committed to collaboration with each other to ensure the successful transition of children, but their differing expectations and dissatisfaction with the present arrangements are major challenges in the transition of children from ECE to primary education.

Al-Othman, Gregory, Jessel, and Khalil (2015) state that childhood education in Saudi Arabia is still in the expansion phase, as with most other Asian and Middle Eastern countries. One of the most pressing issues in these countries is the challenge of recognising the importance of children's transition from ECE to primary school. Like other Asian and Middle Eastern countries, Saudi Arabia has implemented Western curricula to ensure that ECE in the country meets global educational standards, but Western curricula present both opportunities and challenges and it is crucial to improve and adjust these programmes to suit local needs so that they benefit every child in the country (Radich, 2013).

In this digital age, digital devices, such as laptops, iPads and video games, are commonly utilised by children as they are growing up, with a wide range used everywhere, in offices, homes, and schools. The importance of digital technology in education and learning specifically has been recognised globally and has become an integral part of educational curricula at different levels (Mitchell, 1992). Peters (2010) observes that digital tools are widely used by children for their engagement in learning as they offer multiple learning actions and help children in designing, producing, fabricating, maintaining, building, troubleshooting, selecting and even inventing. Radich (2013) provides guidelines for using digital technologies to ensure successful transition from ECE to primary school. Schools can use digital devices and media for supporting relationships and learning, as well as for ensuring the successful transition of children from ECE to primary education. In terms of transition, we know that relationships are vital (Education Review Office, 2015). Therefore digital tools can play a role in developing these.

If digital devices are widely used by pre-school children, including those in Saudi Arabia, it is logical that they can be harnessed to support their transition to school. This study focuses on the impact of digital technology on children's transition from kindergarten to primary school in Saudi Arabia; it analyses the way digital technology is incorporated into the Saudi kindergarten curriculum and the way kindergarten teachers in Saudi Arabia use digital technology for supporting the transition of children to primary school.

International research and practice highlights the importance of the transition of children from ECE to primary school and the role and impact of using digital technology in the transition. This research sets out to explore these two areas in the context of Saudi Arabia, as they represent a gap in the research

literature. Other areas of concern and interest for supporting better transition to school for children include, but are not limited to:

- Parents' roles and practices in supporting the transition from ECE to primary school.
- How to promote better understandings and communication between teachers of both ECE and primary schools.
- How to introduce complementary pedagogical approaches in ECE and primary schools.
- How to distribute information about effective transition from ECE to primary schools.
- How all stakeholders can ensure school readiness for effective transition from ECE to primary schools.

These areas, too, are underexplored in Saudi Arabia but are beyond the scope of the present study as it focuses exclusively on teachers—not so much on relationships, but the digital tools that can potentially support the relationships. I see that this focus is a starting point for research in Saudi Arabia.

The present study

The research study drew on a number of themes that I encountered in my coursework. These included the ways childhood literacy can affect the transition to primary schooling, educational transitions and the impact of digital technology on children's transition from kindergarten to primary school. Initially the focus of the research study was the impact of childhood literacy on children's transition from kindergarten to primary school in Saudi Arabia; however, after a consultation with the Dean of the Education Department at one of Saudi's universities, I was advised to concentrate on the impact of digital technology, since it is a new research field in Saudi Arabia. I proposed this topic to my supervisor who supported this idea and encouraged me to start. It was important to for me to balance the advice of both stakeholders in Saudi Arabia and my supervisor in New Zealand.

Research questions

Drawing on my understanding of the literature, issues and innovations acquired in my study in New Zealand, this research study aimed to enhance the educational systems for kindergartens in Saudi Arabia by answering the following questions:

- What is the impact of digital technology on children's transition from kindergarten to primary school in Saudi Arabia?
- How is digital technology reflected in the Saudi kindergarten curriculum?
- How do Saudi kindergarten teachers use digital technology to support children's transition to primary school?

The research questions were developed in cooperation with my supervisor after we met and discussed the aims and expected outcomes of the research. It was important that I shared with her my knowledge of the Saudi Arabia context—so that the research that was planned was culturally appropriate and able to be actioned.

This research was aimed to be of benefit for kindergartens in Saudi Arabia, as the intended outcomes may help with curriculum selection decisions by having them based on the findings of the study, especially if they intend to engage technology to play a role in children's transition from kindergarten to primary school. There may also be a benefit for teachers, families and children if there is an improved match between engaging digital technology into curriculum and teaching needs as an outcome of this study.

Methods

The mixed methods approach was adopted for this study due to the advantages provided by this approach. However, it was limited to a survey with two types of questions: closed questions and open-ended questions. This does represent a mixed methods approach as it includes the collection and subsequent combination of quantitative and qualitative data (Creswell, 2014).

I had initially planned to use mixed methods in a broader sense—with a survey (closed questions and open-ended questions) and interview. This represents a sequential exploratory mixed strategy which would have yielded richer qualitative data than the open-ended questions alone. A sequential exploratory mixed strategy refers to emphasising the qualitative first phase and testing the findings of the first phase in the second phase. It is an iterative process, embedding the characteristics of exploratory research using a sequential technique to define the unknown variables (exploratory) and then to test them by predicted outcomes and hypothesis (confirmed) (Gilbert, 2010). Ivankova, Creswell, and Stick (2006) explain that the sequential exploratory strategy brings advantages that “include straightforwardness and opportunities for the exploration of the quantitative results in more detail. This design can be especially useful when unexpected results arise from a quantitative study” (Ivankova et al., 2006, p. 5). They also comment that the limitations are “lengthy time and feasibility of resources to collect and analyze both types of data” (Ivankova et al., 2006, p. 5).

As stated above, I had planned to use the sequential exploratory strategy in conducting both a survey and interviews. I decided that a survey would be conducted on the basis of questions, which were designed to seek the opinion of Saudi ECE teachers about the impact of digital technology on children’s transition from ECE to primary schools. The survey also included some questions related to the teachers’ own digital literacy. The sequential exploratory strategy also included interviews of some of the surveyed teachers who were selected at random.

While it was initially my plan to follow the sequential exploratory strategy, this later changed because of significant constraints in conducting interviews, mentioned above by Ivankova et al. (2006). The prime reasons were lack of time and location. To arrange an individual appointment with ECE teachers was hard since I was based in New Zealand and the participants were in Saudi Arabia. Therefore the primary data for the research was collected by conducting a survey. The interviews had to be amended, and a survey was the only means possible to gather data.

Findings and discussion

Despite the reduced methods used, the research revealed some interesting facts about the use of digital technology for transition of children in kindergarten schools of Saudi Arabia. As mentioned above, these findings proved to be a crucial starting point to understanding the phenomenon of ECE to school transition in Saudi Arabia more deeply. The research proved to be useful in the area of transition theory’s applicability in Saudi Arabia because it highlighted the fact that the curriculum in Saudi Arabia for kindergartens does not demonstrate a uniform and consistent policy and practice on the use of digital technology, independent of but also connected to transition. When compared with the existing literature on transition theory and use of digital technology, the absence of a curriculum approach to the same in Saudi Arabia exposes a significant gap in Saudi Arabia’s ECE sector. My own experiences as a kindergarten teacher in Saudi Arabia had brought me face to face with this gap in the curriculum. Further exposure to Western precepts about education and transition had made me aware that this was a significant gap. Furthermore, as I had witnessed as a teacher, there were many variations in how different teachers approached transition of children in ECE. This research was significant for me in light of corroborating my personal experience.

The findings of the research revealed that despite there being no uniform and consistent curriculum for use of digital technology for transition purposes in Saudi Arabia’s kindergartens, many teachers do

apply the technology, as they find that there are many benefits to the application of the technology. However, the frequency with which teachers use digital technology and the period of time devoted to ease transition of children varies from teacher to teacher. Where some teachers could be spreading the transition process over a period of three or more days, some teachers may be spending as little as 1 to 5 minutes on the process. Furthermore, the use of digital technology for this purpose is not consistent in its various aspects. This may also be attributed to the levels of efficiency that the teachers possess with regard to digital technology. A few teachers were novices, but most were relatively experienced. Nevertheless, the majority of the teachers agree that the use of digital technology is to the benefit of the students and most teachers are able to identify the benefits of digital technology, including ease of information delivery, attractiveness of the tools to students and existing familiarity of students with the digital technology. As impediments to the transition process for children in kindergartens, teachers identify lack of cooperation by parents, inefficiency of teachers, lack of curriculum and lack of digital tools and devices.

Considering the literature on utility of digital technology for transition in kindergarten, it can be stated that not all children in Saudi Arabia's kindergartens are receiving the benefits of digital technology.

Conclusion

Transition is a challenging process for children who are in ECE. In this challenging process, the role played by teachers, parents and schools is very important. Literature on transition theory and kindergartens identifies the utility and importance of digital technology for the successful and comfortable transition process for children. The literature also recognises the importance of a set curriculum that incorporates preparation for the transition process. In Saudi Arabia, kindergartens are gradually coming to recognise the importance of transition support. However, as this research has revealed, there are still significant gaps in the curriculum of the kindergarten schools in Saudi Arabia. An important gap pertains to the absence of set curriculum for use of digital technology for the transition of children.

My own experiences earlier were also similar, but as my experiences were based on a short duration of experience in kindergartens, I feel it is important that many teachers who have had significant and longer experience identify similar problems in the system. Furthermore, this research also revealed that there is a paucity of research in this area, that is, transition in kindergartens that is indigenous to Saudi Arabia. I feel this is important because at present many of the observations are based on Western research and, although credible, are unlikely to be able to be uncritically transferred to the Saudi Arabia education context. Saudi Arabia's unique culture and traditions predicate that there must be more research that is indigenous to Saudi Arabia.

An idea for future research may be a primary study that is based on the perceptions and experiences of children. Such research may give more insight into the use of digital technology from the point of view of the recipients, that is, small children. However, equally important is to introduce the view of parents, as some teachers in this study pointed to less than satisfactory relationships with parents. Clearly, too, given the fact that only survey data could be collected, it is essential that richer qualitative data is collected from methods such as interviews and also observation. It may fall on researchers, such as myself, who have begun the research journey, to continue it by following these research directions on returning home.

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