

# **THE INTERSECTION BETWEEN HOME EDUCATION AND EDUCATIONAL TECHNOLOGY: A CASE STUDY**

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**Thesis submitted in fulfilment of the requirements for the Bachelor of Education  
(Primary) (Honours)**

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**July, 2016**

## **CERTIFICATION**

### **Statement of Original Authorship**

I declare that the work contained in this thesis has not been submitted previously for a degree or diploma at this institution, an Australian or overseas university or any other institution of higher education. To the best of my knowledge and belief, this thesis contains no material previously published or written by another person except where due reference is made.

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## **ABSTRACT**

Previous research into Australian home education suggests that home educators personalise pedagogy and learning to the needs and interests of the individual child. This study sought to understand this perspective in general and in particular, how one family integrated educational technology [EdTech] into home education of their primary-aged children. The design of this project adapted a qualitative framework that included a bricolage of case study, ethnography and narrative methods. Data was gathered from respondents using semi-structured interviews, observations and researcher reflections and analysed through constant-comparison and grounded theory. The students and their home educating parent identified a variety of aspects that contributed and influenced the integration of EdTech. Central to the integration process was the learning partnership between the parent and the child. This allowed the curriculum and pedagogy to be personalised to the individual strengths, needs and interests of the child, which also appeared to enhance the perceived effectiveness of the EdTech integrated. The ensuing 'Fountain Model' captured this integration process while also proposing a framework for future applications. In addition, this study reconfirmed sections of the previous research that suggested that home education is child-driven, extending this concept to suggest that this process can contribute to empowering student learning. The findings of this case study support the concept that a flexible and collaborative approach to learning, which is also personalised to the individual student, is core to integrating EdTech effectively and meaningfully for students. Examples of possible applications of EdTech are also described, as well as recommendations for further research.

## **DEDICATION**

To Mum & Dad,

I cannot thank you enough for all the time, love and effort you have invested into me. You have always encouraged me to dream big, to try my best, and have supported me into becoming the person I am today. I am so grateful to have you as parents. We have come a long way since that initial jump into the unknown of homeschooling all those years ago! I would not be where I am today without you. You are the best teachers in the world!

## **ACKNOWLEDGEMENTS**

I would like to thank my supervisor, Phil Fitzsimmons, for your guidance into the unknown world of research and in the development of this thesis. You have an eye for detail and hold a plethora of references and knowledge in your head. Many thanks for your support in this journey.

I would like to acknowledge the respondents of this study. I am grateful for the opportunity you gave me to observe and understand how your family homeschools and integrates EdTech. Thank you for sharing your time, knowledge and experiences with me.

I also want to especially thank my family and friends for supporting me through this endeavour. To my family, thank you for always being there for me, letting me voice thoughts and ideas aloud or being patient with me concerning all the time I spent on this project. Your love knows no bounds. I feel so blessed to have you all as my cheerleaders! To Grandma, thank you for all the time and assistance you gave me in proofing this thesis. I really appreciate it and cannot thank you enough. To my friends, thank you for your support, encouragement and for being a part of my life. I love that so many of you are just as excited about my research as what I am! Monique and Kathryn, I want to thank you in particular for your friendship and support in cheering me on. You are the best!

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## **ABBREVIATIONS**

|             |                                                         |
|-------------|---------------------------------------------------------|
| ACARA.....  | Australian Curriculum, Assessment & Reporting Authority |
| ALP.....    | Authentic Learning Partnership                          |
| BOSTES..... | Board of Studies, Teaching and Educational Standards    |
| EdTech..... | Educational Technology                                  |
| HDMI.....   | High-Definition Multimedia Interface                    |
| ICT.....    | Information and Communication Technology                |
| NAPLAN..... | National Assessment Program – Literacy and Numeracy     |
| NSW.....    | New South Wales                                         |
| OBOS.....   | Office of the Board of Studies (New South Wales)        |
| PC.....     | Personal computer (laptop)                              |
| SEL.....    | Social-Emotional Learning                               |
| SNI.....    | Strengths, Needs and Interests                          |
| SOSE.....   | Studies of Society and Environment                      |
| SRL.....    | Self-Regulation in Learning                             |
| TV.....     | Television                                              |
| USA.....    | United States of America                                |
| VHS.....    | Video Home System (video tape)                          |

## PROLOGUE: THE INNER WINDOW

### My Story

Windows are an opening into the world. They frame a view, capturing life from a particular perspective. While walls block and hide this world from view, windows allow light to stream in, letting the room to be illuminated naturally. This thesis is like a window. It offers a look into the natural setting of a home educating family, allowing the context and family to speak for themselves. However, it also bears my voice as the researcher. It includes the vision I see as I gaze through that window and try to capture this perspective of life. And, similarly with windows, there are also times when you are looking through to the view, but you also notice your own reflection staring back at you. This reflection of yourself, no matter how faint, can be highly significant to the research process (Denscombe, 2007; Van Maanen, 2011).

“The Inner Window” is the first reflection of myself that captures the origins of my experiences with the research phenomena. By initially exploring my ‘self’ and uncovering my tacit knowledge, I want to bring you along this journey of making knowledge explicit and propositional (Niedderer, 2007; Polanyi, 1966). Secondly, as this thesis is focused on home education, an alternative educational practice that can be sketchy in the minds of others despite being well-known, there is also a need to offer an understanding of what home education can mean and look like from the beginning of this thesis (Bak, 2015). Therefore, I will be orientating you, the reader, to part of my background and identity as the researcher using my authorial voice (Van Maanen, 2011). This will introduce you to my perspective, as a leading protagonist in this study, through the use of an impressionist tale; a tale that seeks to capture in full colour the perspective of life the painter can see (Van Maanen, 2011). As I share my personal account, the text will become less formal and shift to italics to reflect this change.

*I am crying, again, as I hop off the school bus and into Mum’s waiting car.  
My Mum shares that special Mum-look and squeezes my hand, comforting me.  
My Mum knew what the problem was. Had known for a while. She had already  
talked to my teacher and the principal about it, too. The principal’s solution was*

*honestly quite ridiculous and we knew it wasn't possible for the teacher to have eyes and, more importantly ears, everywhere.*

*Some days are good, some are just plain terrible, though I mainly try to just remember the good times. The problem? Two girls in my Year 2 class pick on me nearly every day. The trouble is, there are no bruises left. Well, none that are visible anyway. That's why it is so hard for my teacher to crack down on their verbal bullying. As a 7 year old, I am quite shocked by it all and sometimes don't know how to process it. After all, I try hard to get these girls to like me instead. I surprise them by creating treasure hunts for them and share my toy ponies with them. But still I am being bullied after nearly a whole school year. When will it stop?*

*That evening, Dad arrives home from work and we all sit down at the dinner table. "Dad and I have been talking... How would you like it if we did school at home?" asks Mum. "You mean, we use our school books at home, like we do at school?" I question. Questions and answers bounce back and forth between my parents, my younger sister and I. To say I'm enthusiastic is an understatement. It sounds like such a fantastic idea that I am bursting at the seams to tell my friends at school! I mean, I wouldn't have to put up with the bullying every day and my family would be able to travel with Dad on some of his business trips. Besides, my Mum was a high-school teacher, so she knew what she was doing.*

*Ten years later, in Year 12, I am still being homeschooled and am loving it. My homeschool experience is full of memories that reveal a joy for learning, a thirst for knowledge and a multitude of learning experiences that I would not have had if I had remained at school. It is also filled with memories of my very dedicated teacher, who placed mine and my siblings' needs, strengths and interests at the forefront of her curriculum and pedagogical decisions. My Mum's frequent researching on the internet ensured that not only were we at least at the same level as our peers, but that we were learning in ways that were working for us. No longer were we predominantly relying on a paper-based curriculum with supplementary educational games, internet and Microsoft Office applications for school as we did in my primary years. After all, what other educational*

*technologies were easily accessible and available back then? Now I'm also using technology to provide content as well as instruction. Technology is not something supplementary or tacked on, it is essential. It is now a lifeline for when I don't know something or when one way of learning something is not working. As I continue growing into an independent and self-regulated learner, technology also acts as my cheerleader and supporter. It gives me the power to evaluate how I am progressing and finding ways to help me learn something that I don't understand or find challenging.*

Now, as a pre-service teacher nearing the end of her primary teaching degree with honours, I begin the process of uncovering my tacit knowledge in order for it to become propositional (Niedderer, 2007; Polanyi, 1966). I think about the differences and changes that I experienced in home education in conjunction with the strong emphasis in educational technology [EdTech] in today's classrooms (Moyle, 2010; Shelley, Gunter & Gunter, 2010; Smeets, 2005). The changes in curriculum and pedagogy that Mum has initiated over the years seem to connect with the explosion of information and the EdTech available over time. This pedagogical and content change in home education has also been observed in other cases as I begin the process of analysing literature (Andrade, 2008; Drabsch, 2013; Hanna, 2011). Furthermore, I wonder if my homeschooling experience with technology is similar to others. With the plethora of educational technologies available today, my curiosity wants to understand if home schooling families are drawing on these educational technologies the same way my family did and, if they are, what does this look like. What guides them in this process and how do they do it? As a result, my personal experiences began the foundation for my research project. This is the start of my research journey into the intersection of homeschooling and technology.

However, something else relating to my position as a researcher becomes apparent as I continue along this research path. While part of my identity is that of a member of the mainstream academic community as a beginning researcher and a pre-service teacher, I also share a "familiarity and affiliation" (English, 2015b, p. 115) with the home education community in my home state. This suggests that I am an inside-outside researcher (Bak, 2015; English, 2015b) as I represent two different communities that can often feel tension or scepticism towards each other (Harding, 2011; Jackson, 2009, 2014). As such, I am likely to be seen as challenging the ways of both these communities by my decision to research this

alternative form of education in Australia. Yet, perhaps because I am able to relate to both of these groups, this research will allow both education communities to benefit from progressing the understanding in this area from tacit knowledge to propositional knowledge (Niedderer, 2007; Polanyi, 1966). I am in a position that can make known what is implicit in both education fields, providing an account of what home education can be, as well as being able to use “insights from auto-ethnography specifically (Ellis, Adams & Bochner, 2011) as a tool to provide a lens” (Bak, 2015, p. 95). Therefore, my personal experience and understanding in this area may help provide a better understanding of this research topic as it can contribute and interact with the multiple perspectives found in this project (Cherrie & Schneider, 1999; Drapeau, 2002; Watson & Rennie, 1994).

Due to the significance of being an inside-outside researcher, this theme is carried throughout the thesis. Each chapter uses headings that relate to the balance between both of these perspectives. Furthermore, quotes begin each chapter from a variety of sources that add another voice to the complexity of the research context.

## CHAPTER 1: THE INSIDE-OUT DESIGN

*“Education is evolving due to the impact of the Internet. We cannot teach our students in the same manner in which we were taught. Change is necessary to engage students not in the curriculum we are responsible for teaching, but in school. Period.”*

April Chamberlain (2006, para. 1)

### Introduction

Like a collection of windows that allow a panoramic view to be seen, the purpose of this chapter is to provide an overview and orientation of the essential design aspects for this research project. Facilitated by the advances in technology, there are two current phenomena that appear to be jostling for deeper understanding in the education arena. They are home education, also referred as homeschooling (Drabsch, 2013; Jackson, 2009), and the effective implementation of technology for learning (Guerrero, 2010; Moyle, 2010; Shelley, Gunter & Gunter, 2011). This qualitative case study seeks to explore the reasoning and practice behind how one Australian home educating family is integrating educational technology [EdTech] as part of their schooling.

Integrating EdTech as a part of home education is something that my family and I have had personal experience with, as “Prologue: The Inner Window” illustrated. As such, my role as researcher is complex as I step into the field of being an inside-outside researcher (Bak, 2015; English, 2015b). One implication for this is that, while exploring the emic perspectives of my respondents, I am also straddling a line between my own emic perspective as well as the etic perspective of research and mainstream education that I bring to this micro-ethnographic study (Bak, 2015; Creswell, 2013; Sinkovics, Penz & Gauri, 2008). This results in multiple perspectives being part of this research process as the interactions between the respondents, literature and myself as the researcher assist in grounding this study (Charmaz, 2014) and ensuring quality in its design, findings and interpretation (Guba & Lincoln, 2013).

An example of the interaction between these multiple voices and the research process was in the development of the question. My personal experience of home education and technology was the beginning of my research journey and initiated the original question that drove it. However, the question changed through the interplay between my emic perspective, literature

and the data gathered from the respondents (Creswell, 2013; Watt, 2007). This iterative process, which is part of the emergent nature of this project (Charmaz, 2014; Creswell, 2013), collaboratively informed the research question and the sub questions relating to it.

## **Research Questions**

The research question driving this project is:

**“How does one family integrate educational technology in the home education of their primary-aged children?”**

In order to help answer this question, the following areas will be explored:

1. How do the parents and children use technology in their daily life?
2. What is the basis of the parents’ decision-making process relating to the home education of their children?
3. What is the parents’ and children’s role in the decision-making process in what takes place in their home education?
4. How have the parents and children used technology in home education and what were the reasons for it? What did they think of its practicality, relevance and efficacy?
5. How does technology assist or hinder the child’s education?

## **Definition of Terms**

As this research project involves terminology from the home education and technology for learning fields, a clarification of these terms is based on the following:

**Home education/homeschooling.** In Australia, home education is generally defined as learning “being delivered in a child’s home by a parent or guardian” (Drabsch, 2013, p. 1) in which parents “accept responsibility for planning, implementing, and evaluating their child’s learning program” (Drabsch, 2013, p. 2; Queensland Department of Education & Training, 2015, para. 2). Despite this definition, there is some discussion as to the use of the terms ‘home education’ and ‘homeschooling’. Some researchers use these terms interchangeably (Drabsch, 2013), while others believe that home education is a more descriptive and accurate description of the homeschooling practice in Australia (Barratt-Peacock, 2014; Jackson, 2009). For the purpose of this project, the term ‘home education’ will be used to reflect what literature suggests. Though, due to the micro-ethnography of this research project and the importance of the cultural context (Denscombe, 2007; Van Maanen,

2011), it is important to note that the respondents did not appear to divorce these two terms from the other. In fact, they demonstrated a stronger familiarity with the colloquial ‘homeschooling’, as I did in my prologue, which will be used within the context of the findings in “Chapter 4: The Inside Experience”.

**Educational Technology [EdTech].** According to the definition of the Association for Educational Communications and Technology [AECT], “educational technology is the study and ethical practice of facilitating learning and improving performance by creating, using, and managing appropriate technological processes and resources” (Januszewski & Molenda, 2008, p. 1). This definition, which is acknowledged as a “temporary one, a snapshot in time” (Januszewski & Molenda, 2008, p. 1), reflects a view that EdTech is more than just a tool (Hlynka & Jacobsen, 2009). It suggests that EdTech involves researching and the educator utilising these resources in a way that facilitates and contributes to student success (Hlynka & Jacobsen, 2009; Januszewski & Molenda, 2008).

### **Background - Perspectives from the Inside-Out**

Staying consistent with the theme of being an inside-outside researcher, the background of home education and EdTech is structured in a manner that reflects an inside-outside approach. This means we will begin looking at the two phenomena in Australia, before expanding this perspective outwards to international perspectives. By starting with the Australian context, a clear understanding of the primary context in which this case study is situated provides the foundation on which further knowledge will be constructed (Eggen & Kauchak, 2010; Giesen, 2004; Ultanir, 2012). This is particularly significant, as there is a tendency to “equate Australian home education practice with research in the United States of America” (Jackson, 2014, p. 10). Whereas, home education in Australia “has its own culture and history” (Jackson, 2014, p. 10), which suggests that “there is no validity in taking data from the USA situation and applying it here [Australia]” (Barratt-Peacock, 2007, para. 5). Therefore, this approach focuses on the Australian context primarily, while also suggesting possibilities from international perspectives.

In Australia, home education is recognised as a lawful and legitimate alternative form of schooling (Harding, 2011; Jackson, 2014). However, there is great variety amongst home educating practices (Keenan, 2013). There are three homeschooling models that are accepted by researchers (Barratt-Peacock, 2014; Croft, 2013; Drabsch, 2013; Jackson, 2009). Firstly,

there is the school-based program, which is highly structured and externally organised (Drabsch, 2013; Hanna, 2011). Secondly, there is the eclectic model that appears to be the most common, particularly with long-term home educating families (Barratt-Peacock, 2014; Croft, 2013; Jackson, 2009). As the term ‘eclectic’ suggests, parents appear to choose from a range of educational choices in order to meet students’ individual needs (Anthony & Burroughs, 2012; Harding, 2011; Jackson, 2009). Finally, there is the informal/natural model, often referred to as ‘unschooling’ (Barratt-Peacock, 2014; Drabsch, 2013; English, 2015a). This model involves no structure (Drabsch, 2013), however children are educated in a way where parents maximise learning opportunities that are present in everyday life and “by following the child’s interests” (Drabsch, 2013, p. 2; English, 2015b). Despite the differences between these models, Barratt-Peacock (2014) comments that home educators in Australia demonstrate a child-centred approach to learning.

However, despite there being an estimated 50,000 Australian home educated students in 2012 (Drabsch, 2013; Townsend, 2013), Australian literature into home education is still limited (Jackson, 2009). In particular, there appears to be no research available at this time on the relationship between home education and EdTech. International perspectives on the relationship between home education and EdTech are also limited (Neil, Bonner & Bonner, 2014), with them being confined to the United States. There is a mix of qualitative and quantitative research, including an exploratory study (Andrade, 2008), a nonexperimental descriptive longitudinal study (Hanna, 2011), and a quantitative investigation (Neil, Bonner & Bonner, 2014). However, it appears there is yet to be a qualitative, descriptive case study that looks at how one family integrates EdTech from both parents’ and students’ perspectives.

EdTech in mainstream schooling, in contrast, does appear to have a stronger presence in literature. Australian research is revealing that simply using technology for learning as an add-on is not an effective method of integrating technology into the curriculum (Moyle, 2010). Moyle (2010) suggests that Information and Communication Technology [ICT] needs to be used in an environment where students are able to be creative, innovative, self-directed and make mistakes. Herrington, Reeves and Oliver (2014, p. 401) also highlight that technology based learning can “provide ideal conditions” for authentic learning. Both of these points require a transition from teacher-centred instruction to student-centred learning, a constructivist approach, in order to integrate EdTech in a way that enhances and supports

students learning effectively (Moyle, 2010, 2012). International researchers, such as Smeets (2005) and Guerrero (2010), make a similar call for changes in teaching pedagogy in integrating technology into a more student-centred approach as opposed to traditional school structures. Interestingly, home education is frequently described by Australian and international researchers as being learner-centred and learner-driven with a variety of resources (Anthony & Burroughs, 2012; Barratt-Peacock, 2014; Cardinale, 2013; Sheehan, 2002). Perhaps this suggests that the flexibility and student-orientated focus found in home education structures (Jackson, 2014) may lend itself more to the effective integration of technology than a traditional school structure.

Internationally, home education appears to be experiencing a growth in popularity, particularly in the United States and Canada (Andrade, 2008; Aurini & Davies, 2005; Bannier, 2007, Kunzman, 2012). This growth has triggered research into a variety of perspectives and issues involving this educational phenomenon (Kunzman & Gaither, 2013). Examples of these research themes include parental views and characteristics (Jackson, 2009; Johnson, 2014), parental experiences (Sheehan, 2002; Willingham, 2008), motivations for homeschooling (Andrade, 2008; Kunzman & Gaither, 2013), academic success (Bannier, 2007; Cardinale, 2013), and pedagogy and practice (Jackson, 2009; Johnson, 2014; Kunzman & Gaither, 2013). Overall, while there is a plethora of international research into home education, there appears to be only a small amount of research into students' perspectives and experiences in home education (Cardinale, 2013).

### **Rationale - The Outside Motivation**

With effective integration of EdTech appearing to theoretically fit with the models of home education, a study that breaks new soil into a field still undeveloped both in Australia and internationally is of benefit to homeschooling and mainstream academic communities. This research project fits into an area that is unexplored in both topic and research design. It seeks to extend understanding into how a family integrates EdTech, which is of importance for expanding both Australian and international literature. The only available research into the relationship between these two phenomena is limited and is predominantly US-based, as outlined earlier (Neil, Bonner & Bonner, 2014). Furthermore, by the use of a holistic, qualitative and descriptive case study (Yin, 2009), we will also gain an understanding of both parents and children's perspectives. This is also a gap as revealed in international research as the focus appears to be predominantly on the parents' perspectives (Cardinale, 2013), even

where technology is concerned (Andrade, 2008). Therefore, this research project provides a missing piece in the research jigsaw into home education as well as its relationship with EdTech.

## **Methodology & Methods**

The research design of this project is based on a descriptive case study (Hamilton & Corbett-Whittier, 2013; Yin, 2009) in the qualitative paradigm (Creswell, 2013; Flick, 2014).

However, situated within this qualitative case study is also a bricolage that includes elements of micro-ethnography (Atkinson, Coffey, Delamont, Lofland & Lofland, 2007; Creswell, 2013), auto-ethnography (Bak, 2015; Hammersly & Atkinson, 2007), and narrative (Flick, 2009). This bricolage provides a rich framework (Webster & Mertova, 2007) for “a descriptive account of a community or culture” (Hammersly & Atkinson, 2007, p. 1) that reveals “how it really was” (Flick, 2009, p. 182). The methods for gathering data include semi-structured focus group interviews (Kvale, 1996; Thomas, 2010), observations (Yin, 2009) and my own researcher reflection journals (Rudestam & Newton, 2015; Thomas, 2010). In particular, these personal reflections assisted me in the act of reflexivity (Bak, 2015; Rudestam & Newton, 2015), as well as in capturing the journey from tacit to propositional knowledge (Niedderer, 2007; Polanyi, 1966). Each method of data collection “endeavours to catch a holistic perspective as well as capture the depth of understanding of respondents” (Flick, 1998, p. 229).

**Also essential for representing the researcher and respondents’ voices in this project is the combination of both narrative and ethnography to present the data. The ethnographic impressionist tales (Van Maanen, 2011) are used to present both the parents’ and the children’s perspectives in a narrative form, as well as my own voice as this “draw[s] attention not only to the culture of study but also to the way of fieldworker’s location and experience in the field help him produce a text to interpret” (Van Maanen, 2011, p. 118). As this project also utilises emergent design and grounded theory (Charmaz, 2014), findings are then analysed through a process of comparative analysis (Glaser & Strauss, 2012). Hermeneutic phenomenology is also used to present the texture of respondents’ lived experiences as well as in its interpretation (Van Manen, 1990).**

## **Limitations**

As mentioned in “Prologue: The Inside Window”, an element of personal familiarity with the research context is part of my role as an inside-outside researcher (Bak, 2015; English, 2015b). While this personal experience is considered beneficial for this study (Drapeau, 2002), to ensure that there is quality (Guba & Lincoln, 2013) in the findings and interpretations, data will be crystalized through the member-checking process and literature (Bryant & Charmaz, 2010; Drapeau, 2002; Ellingson, 2009). In addition, I will be making use of a discussant and peer debriefers during the research process (Drapeau, 2002; Guba & Lincoln, 1989; Lincoln & Guba, 1985).

Another limitation relates to the respondents selected. Due to the limited time of the honours course, only one home educating family was selected. As a result, this research project is looking at the integration of the two phenomena in one home education context. The implications of this include that the phenomena are only investigated in one of the three major home education approaches (Barratt-Peacock, 2014; Croft, 2013; Drabsch, 2013; Jackson, 2009), with demographics (Jackson, 2014; Keenan, 2013), parental backgrounds (Jackson, 2014), years of experience home educating (Barratt-Peacock, 2014; Croft, 2013; Jackson, 2009, 2014), and the needs and strengths of the individual children also potentially influencing the findings (Barratt-Peacock, 2014; Harding, 2011; Jackson, 2014).

Furthermore, state regulations vary across Australia (Drabsch, 2013; Jackson, 2009), therefore meaning that other home educating families may not have the same flexibility to integrate technology as this site in Victoria does. However, as Stake (1995) mentions, “case study research is not sampling research... Our first obligation is to understand this one case” (p. 4). The site and respondents, therefore, will be selected in order “to maximise what we can learn” (Stake, 1995, p. 4).

## **Chapter Overview**

The following is an overview of the chapters of this thesis:

**Chapter 2: Outside perspectives.** This chapter is a literature review that explores home education, EdTech and the hidden layers that can lie in the spaces in-between. The review seeks to give literature a voice (Oliver, 2014) and follows the inside-outside approach

by focusing on the Australian context first before expanding this view to include international research. Its purpose is to create literary ‘portraits’ that can provide an understanding and perspective of the research context and this project’s position amongst literature.

**Chapter 3: The inner workings.** Providing the methodological framework for this study, this chapter explains the design and the execution of the research model. It is not written in a simple report style, but documents the decision-making process, the emergent nature of the project, and the collection and analysis of data with examples and excerpts. The purpose is to capture the “journey of exploration” (Gray & Malins, 2004, p. 2) with sufficient detail to describe the process of knowledge becoming propositional in nature (Niedderer, 2007).

**Chapter 4: The inside experience.** This chapter offers a ringside seat (Van Maanen, 2011) to meet the Parker family and how they integrate EdTech into their home education program. Using an impressionist tale (Van Maanen, 2011), the purpose of this chapter is to describe and give an account of the field experience and interactions with the respondents.

**Chapter 5: The inside-outside interpretation.** Using the codes, or ‘essences’ (Van Manen, 1990), found through the coding process (“Chapter 3: The Inner Workings”) and literature, this chapter interprets the findings highlighted in the impressionist tale (“Chapter 4: The Inside Experience”). It also proposes a theoretical model of how home educating with EdTech can take place. The purpose of this chapter is to reveal the essences, the relationships between them, and the process that can be used to integrate EdTech in home education.

**Chapter 6: Going beyond.** This chapter draws attention to the education stakeholders who could benefit from the findings of this study. It also proposes areas for further research.

Now that the overall design for this study has been explained, the next stage is to explore the literature base to provide a broader research context for this study. The next chapter aims to provide a foundation base of knowledge relating to the phenomena, as well as positioning this project in amongst both Australian and international research.



## CHAPTER 2: OUTSIDE PERSPECTIVES

*“The number one benefit of information technology is that it empowers people to do what they want to do. It lets people be creative. It lets people be productive. It lets people learn things they didn't think they could learn before, and so in a sense it is all about potential.”*

Steve Ballmer (Microsoft, 2005, para. 2)

### Introduction

As introduced in the “Prologue: The Inner Window” and “Chapter 1: The Inside-Out Design”, my personal experience with home education has enabled me to become an inside-outside researcher; a researcher with “familiarity and affiliation” (English, 2015b, p. 115) to a particular community while being an “outsider... by virtue of being a researcher” (Bridges, as cited in Bak, 2015, p. 107). The role of the inside-outside researcher involves dually representing and shifting between both insider and outsider perspectives throughout the research project (Bak, 2015; Wegener, 2012). It requires a “delicate balancing act of academic credibility and friend/community accountability [that] needs to be [anticipated and] managed with care” (Taylor, as cited in Bak, 2015, p. 108). A key contributor to this balance is the involvement of literature in the research design and process to give an ‘outsider’ voice for the research context (Oliver, 2014). Through exploring literature, we seek “to lay a foundation for the current research” (Oliver, 2014, p. 125). As such, the purpose of this chapter is to explore and synthesise these ‘outside’ perspectives from literature that relate to the question:

### **How does one family integrate educational technology in the home education of the primary-aged children?**

Also key to grounding this research with its wider context (Charmaz, 2006, 2014; Oliver, 2014), this literature review has progressively emerged from my iterative reflections, the interplay with data during its analysis, and through discussion with my peer debriefer (Drapeau, 2002) and discussant (Drapeau, 2002; Lincoln & Guba, 1985) throughout the research process. The product of this methodological interplay and design is a literature review that allows the literature to both contribute and reveal matters of critical importance to this study in a way that reflects a crystallization (Ellingson, 2009) of an inside-outside

research process. This approach helps to construct portraits of the home education community in Australia and internationally, the relationship between home education and technology, and the role of technology for learning. In addition, it highlights other seemingly hidden or tacit features, such as socio-emotional learning, self-regulation and authentic learning, that contribute by adding extra ‘layers’ to these portraits, resulting in a picture that has more colour and depth. In order for the literature to have its own voice heard, this chapter will be written in third person (Oliver, 2014). However, the text will transition to first-person in the text box ‘windows’ that accompany this review as I share my insiders-~~s~~ outside researcher’s reflections, their connection to the theoretical aspects from literature, and to the methodological framework for this project (Fraenkel, Hyun & Wallen, 2012; Lichtman, 2013). A model of the theoretical framework from the literature will conclude this chapter.

*“Honestly, I’m rather frustrated at the moment. Typically, literature reviews start broad and then they narrow as they funnel down. My issue is that I can’t in good conscience do this based on what I’ve read from Jackson (2014) and Barratt-Peacock (2007), which resonates deeply with me. On this premise, how can I start with international home education? ... Whatever I start with, that’s where most of the emphasis is placed as it forms the foundation for the readers to build their future knowledge upon. Therefore, for this micro-ethnographic study, it has to begin with Australia.*

*(Reflection Journal – November 18, 2015)*

Following the inside-out approach explained in “Chapter 1: The Inside-Out Design”, we will begin by painting a literary picture of home education in Australia before expanding our perspective outwards to include international perspectives, as well the role of technology for learning. This change in sequence from the typical structure of a literature review, which usually starts broad and then narrows its focus, is to give you, the reader, a clear understanding of the context of this study’s primary cultural milieu foremost before international perspectives. This also offers a foundation for constructing new knowledge, especially as details concerning home education appear unfamiliar due to the challenges posed in researching it (Bak, 2015, Eggen & Kauchak, 2010; Drabsch, 2013; Giesen, 2004). This inside-out and constructivist approach, in particular, is chosen as there is a tendency to “equate Australian home education practice with research in the United States of America” (Jackson, 2014, p. 10). While there are some broad similarities, Australian home education “has its own culture and history” (Jackson, 2014, p. 10), and therefore “there is no validity in

taking data from the US situation and applying it here [Australia]” (Barratt-Peacock, 2007, para. 5). Consequently, this positioning places the emphasis on understanding the Australian context foremost, while also suggesting possibilities from international perspectives.

### **Portrait 1: Home Education in Australia**

#### **General themes in Australian literature.**

In Australia, home education is recognised as a legitimate and lawful alternative to schooling in all states (Harding, 2011; Jackson, 2014). It is generally defined as learning “being delivered in a child’s home by a parent or guardian” (Drabsch, 2013, p. 1) in which parents “accept responsibility for planning, implementing, and evaluating their child’s learning program” (Drabsch, 2013, p. 2; Queensland Department of Education & Training, 2015). With the increase of home educating families in Australia (Croft, 2013; Drabsch, 2013, Jackson, 2009; Townsend, 2012) there has also been a “small but growing” (Jackson, 2009, p. 12) amount of research literature on Australian home education. Themes, such as reasons why families choose to home educate, student experiences of home education, the impact of home education on families and children, and how families operate their program are some of the topics that have come under investigation. What has been noted is that both parents and children recognise the benefits of home education and this understanding, as well as negative perceptions or experiences of mainstream schooling, has supported their decision to home educate (Croft, 2013; Jackson, 2009, 2014). Unlike studies in the United States, it would appear that the academic outcomes of Australian home educated students has not been the focus of significant or expansive research at this point. However, a recent report by the Board of Studies, Teaching and Educational Standards [BOSTES] (2014) investigated the academic outcomes of home education students in New South Wales. While the sample of home education students who sat the National Assessment Program Literacy and Numeracy [NAPLAN] tests were small (approximately 10%), their “results indicate that this group of students scored significantly above the overall NSW average in nearly every test” (BOSTES, 2014, p. 10), with the greatest differences found in “Reading, Grammar & Punctuation and Numeracy” (BOSTES, 2014, p. 10). Other studies undertaken have shown that home educated students generally transition with ease into mainstream schooling and achieve

*“Due to this diversity found in home education, there appears to be no ‘quintessential’ homeschooler that can be researched. However, the criteria for selecting the respondents for this study situates them in the middle of the characteristics that follow.”*

*(Response to question in  
faculty forum - June 1, 2015)*

average or above average results, compared with mainstream students (Jackson, 2009, 2014). In addition, students felt that they were more successful in their achievements and academic opportunities than what they did while being at school (Jackson, 2014). They also expressed that their “self-awareness, self-determination, sense of self-worth and opportunity to better understand and accept oneself... improved to a greater extent at home than at school”, which their parents identified as well (Jackson, 2014, p. 7). This would indicate that for some children, home education is a comparable method of schooling and also shows similarity to achievement outcomes and social-emotional benefits of US home educated students (Banner, 2007; Barwegen, Falciani, Putnam, Reamer, & Stair, 2004; Cardinale, 2013; Romanowski, 2006).

**A diverse community.** Another characteristic of Australian home education that shares some similarities with US home education is the growing diversity with the home education community (Kunzman & Gaither, 2013). Apart from the differences that are the result of home educators being responsible for the “planning, implementing and evaluating [of] their child’s learning program” (Drabsch, 2013, p. 2; Queensland Department of Education & Training, 2015), there are other factors that contribute to creating the diverse home education community that currently exists in Australia. These factors include a broad demographic, various decision-making influences, three different home education models and variations in regulations across Australian states. Each one of these characteristics leads to home education being very unique in its appearances and situation with each family, which Keenan (2013) believes makes it challenging to research.

**Demographic of home education families.** Studies have highlighted that geographical isolation from schools and other educational institutions is no longer the defining characteristic of why these students are being home educated (Jackson, 2014; Office of the Board of Studies [OBOS], 2004). According to Jackson (2014), these findings are consistent across all Australian states involving studies over four thousand or more respondents. This is of interest considering home education in Australia has grown in recent years, with an estimated 50,000 students being home educated in 2012 (Drabsch, 2013; Townsend, 2012). From these studies, it appears that home educating families are from all geographic locations in Australia, “all income ranges, have all types of educational qualifications and career pathways” (Jackson, 2014, p. 4). In addition, two-thirds of registered home educated students in Australia are primary-aged (Jackson, 2009, in press).

Furthermore, it appears that it is not as dominated by Christians, compared with the United States (Jackson, in press; Keenan, 2013). These differences from the stereotypical view of the home educating families support the variety and uniqueness currently found amongst families of the Australian home educating community (Drabsch, 2013; Keenan, 2013).

**Decision-making influences for home education.** While there is a diverse range of families home educating, the parents' decision to home educate can be influenced from two different forces. These influences can be referred to as the 'push and pull' effect (Croft, 2013, Jackson, 2014). Jackson (2014) & Croft (2013) described these as the "negative perceptions of mainstream education" (Croft, 2013, p. iii) 'pushing' families away from mainstream education, while the positive aspects of home education 'pull' families toward home educating. Examples of the push effect include "poor professional practice, large class sizes, poor discipline, lower academic achievement, learning difficulties not catered for (especially for students with special needs), curriculum weaknesses, social problems such as bullying, negative peer pressure and low self-worth, values in schools unacceptable to parents, and their own children's unhappiness in mainstream schooling" (Jackson, 2009, p. 14). Whereas, "academic strength, broader curriculum, flexible learning to cater for individual needs, one-on-one teacher/student ratios, holistic learning connected to the 'real' world, values teaching, and stronger family relationships" (Jackson, 2009, p. 14), as well as healthier social interactions with a wide variety of ages, were considered the pull factors towards home educating (Jackson, 2009). The result of these influences on the duration that home educators decide to home educate varies. Some home educators would appear to decide to make short term plans to home educate, while it is more common for families to do it for longer periods and usually only if it is in the child's best interests (Jackson, 2014). An understanding of these influences, in particular the qualities that pull families towards home education, provide indicators that appear to align with current home education practices and motivations for why these families decide to home educate the way they do. These features may also influence the home educator's decision-making process when relating to integrating EdTech into their program.

**Approaches to home education.** Another factor that contributes to the variety and uniqueness among the home educating community in Australia is the three different major approaches for home education (Barratt-Peacock, 2014; Croft, 2013; Drabsch, 2013; Jackson, 2009). Firstly, families can use a more school-like, or structured, approach. This approach

involves closely following a structured curriculum that may be externally organised (Allan & Jackson, 2010; Drabsch, 2013; Hanna, 2011). If externally organised, it is purposefully aimed at home educating families, such as the Australian Christian Education [ACE] (Drabsch, 2013; Jackson, 2009). This appears to be the first type of schooling that home educators try before becoming more flexible and using a more eclectic and informal approach (Drabsch, 2013; Jackson, 2014; Keenan, 2013). Research

*“As the eclectic model appears to be the most common model for home educating families, it is important that the respondents chosen for this study use this form of home educating as well. Furthermore, a family with long-term home educating experience is also necessary as changes in the model adopted seem to occur after two years.”*

*(Discussion with research discussant based on preliminary literature review – May 25, 2015)*

suggests that this shift may be due to parents’ gaining “experience and confidence in their children’s learning abilities and outcomes” and who also include “real life and connected learning experiences” (Jackson, 2014, p.8) in their child’s learning program. The children are typically the drivers for this change as they respond and actively engage in learning experiences, which results in home educating families preferring the flexibility that allows students to learn at their own pace in a way that works for them (Jackson, 2014; Keenan, 2013). A learning program such as this needs to be easily modified to incorporate the child’s interests and motivations, which is both one of the most important home education qualities and also one of the greatest sources of tension “between home educators and regulators” (Jackson, 2014, p. 8). This shift into a more student-centred approach is one of the key attributes that the second approach of home education has to offer.

For this second approach, which is informal or eclectic, parents have the added flexibility of being able to select “from a menu of educational choices to meet students’ individual instruction needs” (Anthony & Burroughs, 2012, p. 1). This results in a curriculum that tends to be student-orientated, student-driven and utilises a wide variety of resources (Barratt-Peacock, 2014; Jackson, 2014). This can produce a learning program that is both contextualised with real life and appears more constructivist in nature (Jackson, 2009, 2015). In fact, this appears to be one of the key differences between Australian and American home educators, as Australian home educators demonstrate a tendency to create their own resources, while Americans have an overabundance of kits and guides available (Jackson, in press). The eclectic model appears to be the most common model that the majority of

Australian home educators adopt, especially long-term homeschooling families (Barratt-Peacock, 2014; Croft, 2013; Jackson, 2009, 2014). However, Keenan (2013) remarked that this transition into a less-structured, informal learning environment could occur after as little as two years (Drabsch, 2013).

Lastly, the final approach relates to the informal/natural method of home education, commonly referred to as unschooling (Allan & Jackson, 2010; Barratt-Peacock, 2014; Drabsch, 2013; English, 2015a; Jackson & Allan, 2010). As this model involves no structure (Drabsch, 2013), it is often misinterpreted that the children are not being educated (English, 2015b). However, families who adopt this approach believe “that the best learning takes place by maximising the

opportunities present in the various activities that constitute daily life and by following the child’s interests” (Drabsch, 2013, p. 2). By using this approach, education appears to take place through parents working with their child within this context, resulting in a “learner-centred, democratic education” (Ricci, as cited by English, 2015b, p. 117).

*“Reflecting on my own personal experience of home education, my family initially started by having a school-like curriculum. This may have been largely due to it being familiar, especially as my Mum was a teacher by background. However, it soon began to change, until around two years later, Mum decided that she could do a better job of creating a curriculum than the externally organised one that we were using. She made her own eclectic one that suited my siblings’ and my interests, needs and motivations. Those years of using an eclectic & informal approach were my favourite where I not only loved learning but felt empowered doing so.*

*(Reflection while writing literature review – November 24, 2015)*

*“The flexibility allowed to home educators in Victoria lends itself more to the nature of eclectic home education. Therefore, in order to explore how one family integrates educational technology in home education, this appeared to provide a more optimal environment to research this.”*

*(Discussion with research discussant concerning site and respondents – April 13,*

### **Roles of home educating parents.**

While these three home education approaches give us a broad understanding of the home educator’s role in organising and implementing their learning program, the multiple roles that Australian home educators engage in further promote the holistic development of the child. Harding’s (2011) phenomenological study in Queensland found that there are four parental roles, which are

learner, partner, teacher and pioneer. Each role provides a glimpse into the multi-faceted, home educator's role and how each aspect contributes to the home education process.

*"The role of partner is an interesting one. I asked Mum if she considered she and Dad had the kind of partnership that Harding (2011) describes. She straight away says no. Dad supported the decision to homeschool and had full faith in Mum's ability, though she did doubt herself initially. In her words, Dad "was fully on board...he was for it more than what I was" while Mum, a high school teacher, was concerned about teaching two primary-aged children. However, Dad was busy working and wasn't involved in the actual running or planning of our program. He left it to Mum to make most of the decisions, though would sometimes help us with certain subjects/topics or share any ideas with Mum that he stumbled across, particularly as the years progressed and we got into high school. My siblings and I grew up with the mentality that Dad was like the principal while Mum was our teacher. Despite the difference between Harding's description and my parents, Mum and I notice the characteristics of strong families still being a feature in our own family dynamic.*

*(Reflection after discussing literature with Mum  
– November 24, 2015)*

Firstly, the parent as a learner continually seeks to understand how their child learns, different pedagogies, curriculum content and home education as a practice (Harding, 2011). This role is paramount to the effectiveness of home education as this gives parents information on how they can make immediate changes to their child's learning program that reflect the child's current learning needs, interests and motivations (Jackson, 2014). In addition, as this role could assist in making learning connected to the child (Garcia, 2014), it could also help to promote authentic learning practices (Barab, Squire & Dueber, 2000; Herrington, Oliver & Reeves, 2003), which are discussed further in following sections. The result of this is a parent-educator who is "on a path of change" (Harding, 2011, p. 226) that is a self-directed and child-centred education course "which has immediate application to the family's educational endeavour" (Harding, 2011, p. 227).

Secondly, the role of a partner revolves around the educational partnership formed between parents and contributes to creating the context for home education (Harding,

2011). It involves parents negotiating what their roles are going to be, offering support and encouragement to their partner, sharing a vision for rearing and educating their children, and in discussing and planning strategies for their educational endeavours (Harding, 2011). This

working relationship occurs in what Barratt-Peacock's (1997, 2003) termed the family's intimate zone, therefore providing the leadership for the "home educating family's community of practice" (Harding, 2011, p. 229). It is this close-working partnership, and the shared activities that result from it, that can manifest into creating a family community which displays many characteristics of strong families (Harding, 2011). Some of these characteristics observed include communication, commitment, support, acceptance, a desire to spend time together, resilience, self-efficacy and affection (Cox & Demmitt, 2014; DeFrain & Asay, 2007;

*"Parents acting as facilitators – this is a characteristic that I noticed in my observations without fully realising its depth. I actually witnessed the mother helping both children to develop tangible and intangible aspects of maturation. She was mediating the development of spatial, hand-eye coordination, fine motor skills and other cognitive skills, but also autonomy, self-regulation, self-determination, self-awareness, and reflection.*

*(Reflection while writing literature review based on observation of an art lesson and research project. – November 25, 2015)*

Harding, 2011; Incerti, Henderson-Wilson & Dunn, 2015; Jackson, 2009, 2014). It is through this kind of close partnership that typically occurs between home educating parents that produces a "family-based education administration" (Harding, 2011, p. 230), in addition to modelling and facilitating the development of aspects relating to Social-Emotional Learning [SEL] (Zins, Bloodworth, Weissberg & Walkberg, 2004).

Thirdly, the role of the teacher is both multidimensional and holistic in nature, endeavouring to facilitate both "formal and informal educational experiences, in a real-life setting" (Harding, 2011, p. 236). This role introduces us to four key aspects that are foundational for the home educator. As previously explained under "Approaches to Home Education", one of the core qualities of home education is the flexibility to tailor learning to the child's needs, interests and motivations (Barratt-Peacock, 2014; Jackson, 2014; Keenan, 2013). In order for this to take place, home educators rely on a relational aspect, the first key aspect, which is based on their familial, long-term relationship that already exists with the child (Harding, 2011). It is this close, parental understanding of their child that home educating families perceive as being helpful in personalising the child's learning, which creates a pedagogical advantage (Harding, 2011) as well as relationships that can facilitate the student's SEL (Zins et al., 2004).

How home educators organise their lives and structure the learning program is the second aspect of the parent-teacher role (Harding, 2011). Harding's (2011) study revealed that home educating families often organise their lifestyle in tandem with home education, treating it not as a separate, isolated component. This flexibility allows other innovations to be included, such as travelling, as well as for adapting to special health or education needs that children may have (Harding, 2011). Jackson (2009) noted that children also contributed to the organisational aspects of their family's home education practice, including topic selection, pace and study times, which parents respected.

The next aspect of the teacher-role is developmental, as the parents focus on the developmental needs of the child. This involves the "parents facilitating the development of their child towards tangible and intangible aspects of maturation" (Harding, 2011, p. 230). One key part of this is the parents' role as mediators for development, especially concerning cognitive learning skills (Jackson, 2008, 2015b; Portes & Vadeboncoeur, 2003) and SEL (Zins et al., 2004). Social-cultural researchers have recognised that parents are appropriate mediators (Harding, 2011) and that they are noted for being more effective at spontaneous mediation compared with teachers, as well as the child's peers in a variety of contexts, apart from extending their comprehension of scientific concepts (Jackson, 2008, 2015b; Portes & Vadeboncoeur, 2003). Verbal guidance is one form of mediation that parents use that "empowers children to become better learners than those who do not receive this form of mediation" (Jackson, 2008, p. 2; Kozulin, 2003; Portes & Vadeboncoeur, 2003). Harding's (2011) study revealed that home educating parents viewed themselves as mediators for development, which could suggest that parents are offering more mediation as they perceive themselves as the primary mediators (Jackson, 2008, 2015; Kozulin, 2003).

The final aspect of the teacher-role is pedagogical, which also relies on the input of the relational, organisational and developmental aspects (Harding, 2011). Once again, the core component of the pedagogical aspect is the relational focus, which allows for learning to be situated in the context of the child's needs, interests and motivations (Barratt-Peacock, 2014; Harding, 2011; Jackson, 2014; Keenan, 2013). Perhaps this explains another difference between Australian and American home education in that Australian home educators appear to clearly believe that stronger family relationships and improved one-on-one learning opportunities are part of home education tailoring to the child's best interests (Jackson, 2009, in press). While traditional subjects are still included, this focus is also inclusive of the

child's social and cultural context. This results in a personalised pedagogical approach that is both aimed at the "whole-of-the-child" as well as learning being "contextualised in the real

*"Flexible... personalised...connected. These three qualities, based on a foundation of a strong and caring relationship, seems to be the essence of Australian home education. Is there any possibility of mainstream schools displaying these same characteristics if they benefit students as much as what is described throughout this literature review?"*

*(Reflection while writing literature review – December 8, 2015)*

world" (Harding, 2011, pp. 235-236), which appears to have similarities with constructivist learning (Jackson, 2008, 2015).

Finally, the role of the pioneer is one that is promoted by the "out-of-the-ordinary practice of home education" (Harding, 2011, p. 236). While home education is accepted as a legal alternative form of education (Drabsch, 2013), home educating families appear to challenge the views of education and family life long held by the public by their choice of education

(Harding, 2011). This role begins with parents advocating for home education by conversing with friends who express an interest, as well as home educators supporting each other and networking, which became easier with the use of technology (Andrade, 2008; Harding, 2011). These two characteristics are normally observed from experience home educators who feel confident to assist others with either starting or continuing home education (Harding, 2011). The next two characteristics of the pioneer relate to "reconceptualising education" and "reconceptualising family life" (Harding, 2011, p. 236). With the outlines of the previous three roles of learner, partner and teacher, the differences between the focuses and practice of home education stand out from the norms of mainstream education. Home education focuses on familial relationships, the family as a community and site for learning, which brings about a personalised pedagogy for the child that is situated and connected with the real world (Barratt-Peacock, 2003; Harding, 2011; Jackson, 2014). This recasts the image of education and family life that while, from the education perspective, is espoused by Australian researchers (Caldwell, 2006; Harding, 2011; Loader, 2007), little change towards a flexible, personalised pedagogy that is relevant to real life has actually taken effect in mainstream schools (Harding, 2011). Yet, home educators "face opposition from institutions that idealise these same pedagogies" (Harding, 2011, p. 238). This reflects a similar response observed by Guerrero (2010) concerning integrating technology in the classroom, with a change occurring in a teacher's thinking concerning the effective integration of EdTech, yet there appears to not be a change in practice. Concerning the final characteristic of "seeking

to produce good citizens” (Harding, 2011, p. 236), there has been no empirical data collected at this point in time on Australian home education children becoming good citizens, nor a clear understanding as to what the criteria is for a good citizen (Harding, 2011). However, what it does display is that home educators are civic-minded and have good intentions towards the community (Harding, 2011), even if many of them decide to not register as home educators with their state as regulations require (Drabsch, 2013; Townsend, 2012). Perhaps if this opposition that appears to target the flexibility and personalisation of pedagogy in home education (Harding, 2011), which can also be found in some Australian state regulations, was not a point of contention between the home education community and regulators (Jackson, 2014), then home educators may be more inclined to register and comply with regulations (Jackson, 2014).

**Australian home education regulations.** The diversity found in home education is also promoted by the differences in regulations found in each state across Australia (Drabsch, 2013; Jackson, 2009). A key similarity is that all home educators are required to register and provide evidence that they are teaching the key learning areas, though this can take many different forms (Jackson, 2014). However, Queensland home educators are required to send in mid-year and end-year reports and assessments (Queensland Department of Education & Training [DET], 2016), while this is currently not required of some other states (Drabsch, 2013). Furthermore, home educators in NSW are visited at home by an “authorised person” after their initial application (Keenan, 2013; Office of the Board of Studies NSW [OBOS], 2013). The purpose of the visit is to ensure that there is a plan for covering the curriculum,

*“The thing I love about the stereotypical concern about homeschoolers and socialisation is that I can say, ‘Hey, did you know that I was homeschooled?’ To which the usual shocked or surprised response is, “No, I would’ve never guessed! You act normal and are as social as anybody else!”*

*(Reflection while writing literature review – December 9, 2015)*

documenting learning activities, student progression and achievement, as well as having the necessary resources to achieve these (OBOS, 2013; Keenan, 2013). However, due to strict regulations in some states, the flexibility in modifying the program to meet the needs and motivations of the child, which is “one of home education’s most important educational qualities” (Jackson, 2014, p. 8) is reduced (Allan & Jackson, 2010). As highlighted previously, this has been the greatest source of tension between home

educating families and regulators (Jackson, 2014). While it is typical for regulations to be made that take into account the most recent research in the field, Australian home education regulations have often been “developed and applied without reference to Australian research, or any other research, on home education” (Jackson, 2014, p. 3). It is when this failure occurs that contributes to “growing tensions, misunderstandings and non-compliance by home educators in a number of states across Australia” (Jackson,

*“As I met with the respondents for this study, I noticed that they appeared to have the same social characteristic mentioned in these studies. The children were confident and articulate in communicating with me and were involved in a broad range of extra-curricular activities that it was often a juggle arranging times to meet with them.”*

*(Reflection comments from 1<sup>st</sup> and 2<sup>nd</sup> round interviews – 14/7/15 & 3/8/15)*

2014, p.3). Conversely, when governments make home education regulations that are based on research, there are “less tensions and higher compliance” (Jackson, 2014, p. 3). This notion will be discussed further in “Chapter 6: Going Beyond” in regards to the findings of this study and how they may benefit regulators’ decisions in the future. However, there is another facet about homeschooling that the Australian public is concerned about.

**Socialisation.** One of the key concerns that the Australian public has about home education concerns the myth of the lack of socialisation of home educated children (Jackson, 2014; Keenan, 2013; Romanowski, 2006). However, Australian home educating families, both parents and students, “regularly explained that they wish the general population were more informed about home education and socialization in particular” (Jackson, in press, para. 28; Croft, 2013; Jackson, 2009). From an Australian perspective, Jackson (2009, 2014) identified that home educated students have a wide variety of interactions with other people outside of their family. These interactions take place in home education networks, extra-curricular activities such as music, sport and drama, religious organisations, special interest groups, volunteering and clubs (Jackson, 2014). Honeybone (as cited by Jackson, 2014) described home educated students as having a “vertical socialisation experience” (p. 6), as opposed to the “horizontal socialisation experience” (p. 7) provided through mainstream schooling. The diversity found in home educated students’ social interactions also “improved self-esteem, independence from peers, the ability to mix and converse with people from all age groups, ... [ a tendency] to rate their families higher than their mainstream peers” (Jackson, 2014, p. 6). Students also felt that the diverse social interactions “helped to prepare

them for adult life” (Jackson, 2014, p. 6), sentiments which are also reflected in US home educated students (Romanowski, 2006). Another factor that relates to socialisation in home education is the rise in technology (Andrade, 2008; Hanna, 2011). According to Moyle (2010) and Bulfin (2009), technology supports social interactions in a variety of ways. However, how Australian home educating families use and implement technology in Australia is still unknown.

**Critics of home education.** While socialisation is amongst one of the most prevalent concerns towards home education, however misplaced this appears to be, there are other issues that critics of home education raised recently in Australia. Smith (2014, 2015) raises concerns that home educators adopting the unschooling approach may be responsible for educational neglect as the children may suffer from a deficit in basic literacy and numeracy skills, despite the recent report which revealed that the small sample of home educated students who sat the NAPLAN test performed better than their mainstream counterparts in New South Wales (BOSTES, 2014). This concern is then combined with speculation that while there are over 3000 students registered as home educated, there could be as many as 10,000 in New South Wales alone, therefore the possibility that many children could suffer academically. The reasoning behind this is that ‘unschooling’, as its name could suggest, is indicative of no schooling taking place and that the child determines what they learn, when they learn (Smith, 2014, 2015). However, as outlined earlier, the unschooling method is more complex than this, and is guided by the principle “that the best learning takes place by maximising the opportunities present in the various activities that constitute daily life and by following the child’s interests” (Drabsch, 2013, p. 2). Mercer, from the Home Education Association (as cited in Smith, 2014) echoes this perspective that unschooling “is about providing a rich environment in which learning can occur... it is about recognising when learning is happening and allowing it to occur” (para. 10). Furthermore, just as it is challenging to determine how many families are home educating (Drabsch, 2013), it is equally difficult to extrapolate what some home educators may be doing across the entire home education community (Smith, 2015).

Another issue that forms the basis for many critics is that concerning the religious nature of home educators. In fact, in response to Smith (2015) concerning a possibility that unschoolers may be deficient in basic literacy and numeracy, Dr Kaye said, “It is highly unusual for the Premier to sign a government response to an inquiry. This time it looks like

*“My respondents’ primary motivation for home educating was not due to their religious background, even though they are Christian. After all, there is a school nearby that upholds their denomination’s beliefs, alongside other Christian schools in the area. Therefore, it makes me question the validity of assuming and treating Australian Christian homeschoolers as the same as the extreme conservative American Christian homeschooler. Australian families don’t seem to be pushing the home education agenda based on their religious grounds, which appears to be what the Americans are doing.”*

*(Reflection while writing literature review,  
December 9, 2015)*

he is meddling in a policy areas that is increasingly [of] interest to his conservative Christian power base” (para. 10). While determining the validity of this specific statement is not the concern for this literature review, the underlying assumption that it is conservative Christians who are the key players in home education is. Perhaps strongly influenced by the perspectives and stereotypes of home educating families in the United States, such as Apple (2007), who links home education with “conservative groups of religious fundamentalists and evangelicals whose voices in the debates over social and educational policies are now increasingly powerful” (para. 3), the effect of right-winged politics and religion is not as noticeable in Australia (Jackson, in press).

Even Arai’s (2000) study of the motivations for Canadian parents to home educate observes that “although the participants in this research were often religious, religious beliefs were not a major motivation for home schooling” (p. 209). As mentioned previously, there are differences between home education in Australia and in the United States, just as there are differences in our conventional schooling systems and legal and regulatory systems (Jackson, in press). This also appears to include a more diverse community where, according to Gamble’s study (as cited in Bickers, 2014), only 7 percent of his 231 respondents home educate for religious reasons. Keenan (2013) also comments that Australian home education appears to not be dominated with Christians compared with the United States of America [USA]. This suggests that the context, culture and demographic of home education in Australia is different from the USA, and that the tendency to “equate Australian home education practice with research in the United States of America” (Jackson, 2014, p. 10) exists despite Australia not being a replica of practices that occur in the United States (Jackson, in press).

## Portrait 2: International Home Education

**The broader literature landscape.** While there are differences between the United States and Australia concerning home education, there are also similarities, including experiencing a growth in the number of home educated students. As previously indicated, home education has also grown in popularity and acceptance as an alternative form of education internationally, particularly in the United States & Canada (Andrade, 2008; Aurini & Davies, 2005; Davies & Aurini, 2003; Kunzman, 2012). This growth is also evident in the amount of home education literature available, with the United States contributing significantly to the field (English, 2015; Jackson,

2009). While research into home education and technology is still in its infancy, other areas that include parental views and characteristics (Jackson, 2009; Johnson, 2014; Sheehan, 2002), motivations for homeschooling (Andrade, 2008; Kunzman & Gaither, 2013), experiences of parents (Sheehan, 2002; Willingham, 2008), academic success (Bannier, 2007; Cardinale, 2013) and pedagogy and practice (Jackson, 2009; Johnson, 2014; Kunzman & Gaither, 2013)

have been explored. However, there appears to only be a small amount of research on student's perspectives and experiences (Cardinale, 2013). This seems to be a key difference between the focus of research on home education compared to what home education appears to be focused on – the learner. Research indicates that home education is a collaborative family effort (Anthony & Burroughs, 2012; Cardinale, 2013; Sheehan, 2002), which has the purpose of meeting the needs and interests of the child (Anthony & Burroughs, 2012; Cardinale, 2013; Sheehan, 2002). Family collaboration can occur when the parents also allow the child's voice to be an important part of the home education process and decision-making, resulting in a child-centred approach (Sheehan, 2002). If this is the case of home education process, then it would be necessary to look at the entire family, to observe how the family interacts together in the decision-making process of curriculum and pedagogy, in order to have a holistic view of the learning and decision-making environment surrounding integrating EdTech.

*"The idea that home education is a collaborative family effort and the lack of the students' voices in international literature were two influences that played an important role in the design of this study. Looking at only the parents of the children was not going to provide a holistic understanding of the context or the findings."*

*(Faculty forum presentation – June 1, 2015)*

Findings suggest that home educating parents are motivated to help their children learn in the best possible way, often through individualisation in the pedagogy (Anthony & Burroughs, 2012; Barratt-Peacock, 2014; Davies & Aurini, 2003; Sheehan, 2002). This attitude towards schooling, which is also noted in Australian home education, seems to support the development of home educated students into being successful academically, socially and in their contribution to society (Bannier, 2007; Cardinale 2013; Romanowski, 2006). This is important to note as many stereotypes of home educated students promote that students develop into backward, socially awkward individuals (Drenovsky & Cohen, 2012; English, 2015b; Romanowski, 2006). Drenovsky and Cohen's study (2012) into the adjustment of home educated students to college life reveals the opposite view. They concluded that there is no difference between home educated or traditionally schooled students in their level of self-esteem at college (Drenovsky & Cohen, 2012). However, students who had experienced home education did have a significantly lower depression score than those with no such experience (Drenovsky & Cohen, 2012). The results not only suggest that home educated students are able to psychologically adjust to college education, but also "report higher academic achievement" across different tertiary institutions of various sizes and settings and "provide excellent overall evaluations of their entire college experience" (Drenovsky & Cohen, 2012, para. 29). This perspective of the effect of home education on students' academic and social-emotional life is glaringly different to the stereotype frequently referred to today. Furthermore, the flexible, child-centred, individualised pedagogy of home education, which reflects aspects of constructivism, may not only benefit students academically and social-emotionally, but may also support the effective integration of technology to benefit student's learning as well.

"Interestingly, Moyle (2010) has called for the same apparent flexible and learner-driven pedagogy in the use of technology in mainstream schooling. She believes that this approach with implementing technology will prove to be more effective and beneficial for students' learning. Does this mean that home education lends itself more to the effective implementation of technology than the traditional mainstream structure?"

(Presentation notes for faculty forum – June 1, 2015)

### **Portrait 3: Technology for Learning**

**Australian and international perspectives.** As outlined in the Melbourne Declaration on Educational Goals for Young Australians (Ministerial Council of Education, Employment,

Training & Youth Affairs [MCEETYA], 2008), an important part of supporting young Australians in becoming successful adults is for them to be highly proficient in information and communication technologies [ICT]. However, Moyle (2010), in reference to a recent, large scale study in USA, comments that classrooms implementing ICT by “using technologies to support a pre-existing curriculum is of contested effectiveness” (p. 4). Instead, Moyle (2010) proposes that for Australian schools to receive the benefits of integrating ICT effectively, classes need to take a more constructivist approach where students have the flexibility to be creative, innovative, self-directed and able to make mistakes.

*“After reading Moyle, I was really excited about the potential I saw for educational technology and home education to have a strong and effective relationship. However, now I also had several new questions that I wanted to find answers for. Chief of the all was ‘What is a powerful learning environment?’”*

*(Discussion with discussant –  
April 23/2015)*

A constructivist learning approach allows children to actively construct their knowledge by building on from what they already know, learn from their mistakes and connects to real-life contexts (Eggen & Kauchak, 2010; Giesen, 2004; Moyle, 2010; Ultanir, 2012). This constructivist approach places students at the centre of the learning process, and in turn it can promote successful learning qualities, such as self-directed learning, autonomy and self-determination as students think creatively and ‘own’ their learning (Moyle, 2010; Smeets, 2005). It also promotes teaching strategies that are inherently flexible, authentic and individual in pedagogy, which seems core to not only maximising the benefits of using technology for learning, but could also provide some of the key benefits found in home education as well (Garcia, 2014; Harding, 2011; Jackson, 2009, 2014; Moyle, 2010; Smeets, 2005). In comparison, a teacher-orientated and declarative teaching approach reduces students to being passive and disengaged and prevents them from becoming empowered learners, which is key to their success as lifelong learners (Moyle, 2010; Ultanir, 2012). Guerrero (2010) further expands that teachers are less likely to successfully integrate technology into the classroom if they place the emphasis on themselves and not their students. Making this shift from a teacher-orientated perspective to that of a constructivist, student-centred approach appears to help teachers overcome barriers concerning integrating technology as they become dissatisfied with their existing pedagogical practices and become motivated to change (Guerrero, 2010). Otherwise, there appears to only be a change in

teachers' thinking and not a change in their practice (Guerrero, 2010). It is this application of the constructivist theory into practice that seems essential in order for teachers to maximise student learning where technology is concerned (Hermans, Tondeur, van Braak & Valcke, 2008).

*"Intentional. To use technology effectively for learning, the teacher needs to be intentional. It is not a magic trick where you can simply pull a rabbit out of a hat, neither can you just add in some ICT elements to a lesson and 'Voila', students receive the learning benefits supported and enhanced by educational technology. In theory, this makes sense. After all, we are intentional with other aspects of our teaching practice, why should integrating technology be any different? Yet, it would seem for some reason, we have difficulty putting this into practice. Perhaps our own insecurities, making mistakes in front of our students, or uncertainty as to what effective integration of technology in the classroom actually looks like, is trapping us in being teacher-centred and not being student-driven."*

*(Reflection while writing literature review –  
December 1, 2015)*

Another possible explanation for the positive effect of constructivist learning and its efficacy in integrating EdTech may be found in the learning environment that results from this approach. Termed "powerful learning environments" (Smeets, 2005), these learning environs are at the centre of nurturing empowered learners (Garcia, 2014; Guerrero, 2010; Ultanir, 2012). Powerful learning environments are created when teachers provide learning opportunities rich in context and authenticity that engage students in "active, autonomous and co-operative learning" (Smeets, 2005, p. 1), which are individualised to capabilities and needs of learners (Garcia, 2014; Moyle, 2010). Garcia (2014) further suggested that this individualisation in pedagogy can be driven by students' personal and social interests. This results in learning experiences involving technology that "have the potential to reap tremendous benefits in terms of increasing engagement and participation in learning, facilitating peer interaction, and spurring

academic and civic empowerment" (Garcia, 2014,

p. 23). Once again, it is this authenticity through student-centeredness and individualisation, or 'personalised learning' (Moyle, 2012), that can not only help to enhance and support student learning effectively with technology, but can also promote an optimal learning environment as well (Moyle, 2010; Smeets, 2005).

While it appears that integrating technology in the classroom based on a constructivist approach seems to be the essential key for integrating technology effectively in the classroom (Guerrero, 2010; Hermans et al., 2008; Moyle, 2010; Smeets, 2005), there can be challenges with using this approach. An example of such a challenge is that a constructivist approach takes more time as students need to be allowed the opportunity to be creative, innovative, self-directed and make mistakes (Moyle, 2010). However, the traditional school structure does not support

*“The selection of an eclectic home educating family, from what literature suggests, would appear to be more conducive to the effective integration of educational technology. Families who are adopting this approach treat learning resources as if selecting from an educational menu to suit their child’s needs, strengths and interests. This is another reason why such a family was chosen for this study.”*

*(Discussion with research discussant concerning site and respondents – April 13, 2015)*

this form of learning as time is a “scarce commodity”, and a classroom that adopts this approach is likely to look “out of the control of the teacher” (Moyle, 2010, p. iv). This is a key difference in how typical home education operates compared with mainstream schools. As identified earlier, home educating families educate using a variety of resources that are learner-centred and learner-driven (Anthony & Burroughs, 2012; Barratt-Peacock, 2014; Cardinale, 2013; Sheehan, 2002) and the organisational aspect is flexible and can involve student input (Harding, 2011; Jackson, 2009). Therefore, it may be suggested that the flexibility and student-orientated focus found in home education structures (Jackson, 2014) lends itself more to the authentic integration of technology than a traditional school structure.

Other concerns about EdTech relate to its usage and integration as a powerful learning tool (Etherington, 2008; Smeets, 2005). Firstly, schools need to have the technology infrastructure in order for technology to be accessible to students, as well as teachers who are willing and knowledgeable to use it, which is not always the case (Wenglinsky, 1998). Secondly, some critics view that “technology can in fact distract the learner by allowing technology to become more intrusive in the educational experience. Consequently, this often erodes the human factor in learning – making the learning process a more isolated experience” (Carroll, 2013, p. 342). However, this “homogenisation and dehumanisation” (Etherington, 2008, p. 29) of primary students is predominantly connected with the E-learning platform and the way in which the teacher integrates the resource. EdTech differs from E-learning in that EdTech “is the study and ethical practice of facilitating learning and

*“Based on what I observed with my respondents, the technology components were treated as resources that were used as stepping stones to help students in building their knowledge. They reflected a more constructivist approach and the criteria for educational technology as opposed to the description of E-learning.”*

*(Reflection while writing literature review –  
December 1, 2015)*

improving performance by creating, using, and managing appropriate technological processes and resources” (Januszewski & Molenda, 2008, p. 1). Whereas, E-learning shares similarities to traditional school structures with instructivist pedagogy (Etherington, 2008) instead of the more effective constructivist approach (Hermans et al., 2008; Moyle, 2010).

A key characteristic of EdTech is that the educator researches and utilises resources that facilitate and contribute to student success

(Hlynka & Jacobsen, 2009; Januszewski & Molenda, 2008). As outlined earlier, in order for this to be done effectively with technology, a student-centred, constructivist approach needs to be adopted instead of the traditional, teacher-orientated approach (Hermans et al., 2008; Moyle, 2010). The isolation that is associated with E-learning, a consequence of the diminished human element of learning that can occur (Carroll, 2013), conflicts with the understanding that “knowledge is socially and individually constructed on the basis of experience” (Etherington, 2008, p. 47). This suggests that the crux of some critics’ views of technology and learning is that technology causes learning to be divorced from the context of students’ individual lives and limits the social function that also facilitates knowledge development. However, by the very nature of a constructivist approach that Moyle (2010), Guerrero (2010), Smeets (2005) and Hermans et al. (2008) suggest, EdTech can be integrated in a way that is flexible to the needs and strengths of individual learners, authentic and connected to student’s lives (Garcia, 2014), and utilises socialisation and collaboration with peers as a key role in the learning process. While EdTech is not “an end in itself” (Carl, 1991), it appears that it adds more value to the learning process than just a tool (Hlynka & Jacobsen, 2009); that it is “used as a medium of learning and not the new pedagogy” (Etherington, 2008, p. 48). This philosophy places importance on the student, that the integration of EdTech reflects the nature of a learning resource and that its integration preserves the learning community of the student while connecting with the ‘whole’ child. Overall, this philosophy for integrating EdTech and learning seems to share many similarities to viewpoints held by members of the home education community, particularly those who adopt an eclectic approach of home education where they select learning resources from an

*“The themes of these US studies were broadly applicable to this project. Of particular importance is that of Hanna’s research that suggests a dynamic curriculum, which will be related to the findings in Chapter 5. Furthermore, after reading Neil, Bonner & Bonner, I wanted my first round of questions to also explore what the basis was for the perceived usefulness. Was it based on a focus on relevancy and a clear purpose for enhancing student learning, or was it based on its use as an add on or a filler, which Moyle (2010, p.4) remarked was of ‘contested effectiveness’?”*

*(Workshopping interview questions with discussant – June 4, 2015)*

educational menu to suit the needs, interests and strengths of each child (Anthony & Burroughs, 2012, Barratt-Peacock, 2014; Jackson, 2014). That is, it is a student-centred approach that is inherently flexible (Barratt-Peacock, 2010; Drabsch, 2013; Jackson, 2014) to allow students room to be creative, innovate and make mistakes (Moyle, 2010) with the parent being a mediator for learning (Jackson, 2008, 2009, 2015; Portes & Vadenboncoeur, 2003).

#### **Portrait 4: Home Education and Technology**

**The portrait in progress.** Despite the possibility that home education practice lends itself more to the integration of EdTech than a mainstream school, studies are limited and are

predominantly US-based (Neil, Bonner & Bonner, 2014). It would appear that there are currently no Australian studies available on the relationship between the two phenomena. However, some of the concepts and themes international researchers suggest may be broadly relevant to the Australian research context. Andrade (2008) found that for his respondents, technology supported home educating parents by informing their decision to homeschool, and in creating, accessing and maintaining like-minded homeschooling groups. In fact, technology was perceived as having an “empowering and equalizing effect” (Andrade, 2008, p. 114) for some home educators because of these qualities, in addition to boosting their self-efficacy and confidence. Some home educators also perceived that technology “had helped level the educational field for them” by giving them “direct access to information, resources, and experts and instructors of their choosing” (Andrade, 2008, p. 117).

Hanna (2011) extends this initial view of technology by noticing that through the duration of her longitudinal study, the rise in technology dramatically increased the pedagogy and curricula that home educating families used as well as networking interactions. This increase was the result of home educators carefully selecting and making use of the newfound

accessibility to an extensive range of resources, a variety of curricula and an expanding support base that had not been present in the late 20<sup>th</sup> century (Hanna, 2011). Furthermore, Hanna (2011) noted at the conclusion of her study that from the use of ICT in home educating families “all indications suggest that this population is growing by leaps and bounds and has brought its children, methods, and materials into the 21st century” (Hanna, 2011, p. 20).

While the innovations that have occurred in technology development and its applications over the past decade may be a plausible answer as to why technology’s role in home education rose dramatically, a recent study in central Texas suggests a more narrowed focus on the decision-making process in using and implementing technology. According to Neil, Bonner & Bonner (2014), factors that may lead to an increase in the use of various technologies are based on the perceived usefulness that the specific technology has to parents and students. The perceived usefulness, conversely, is influenced by the perceived ease of use in operating it (Neil, Bonner & Bonner, 2014). This reveals that perceived usefulness appears to act as a mediator between ease of use and actual usage (Neil, Bonner & Bonner, 2014). However, it is considered by some researchers that the relationship between these factors is more complex than what is actually presented (Adams, Nelson & Todd, 1992; Neil, Bonner & Bonner, 2014). Despite some uncertainty, Neil, Bonner and Bonner’s (2014) research does suggest that how home educators perceive the usefulness of a technology tool will largely determine whether they integrate it or not. This seems to align with what literature suggests is the practice of most home educating families in that they source materials based on their relation to the student’s needs, interests and strengths (Anthony & Burroughs, 2012; Barratt-Peacock, 2014; Jackson, 2014), which may contribute to the context of ‘perceived usefulness’.

*“As I shared in my prologue, with the introduction and increase in technology, there were also changes in the pedagogy and resources that Mum chose. We were using a wide variety of resources, tried some different curricula, and linked up with a homeschool group that met up for team sports (amongst other things) during the term. Everything seemed to become so much more accessible and easy to find!*

*(Reflection while writing literature review –  
December 9, 2015)*

*“Dynamic interaction between the learner, the task and the environment – I like this explanation of authentic learning. It describes it as something that is active and not passive. It is not something that you can simply tick the boxes of that will create it. It is the constant interplay between these three features that allows authentic learning to emerge. How does this compare with what my respondents are doing? Is authentic learning a part of how they integrate educational technology into their practice?”*

*(Reflection while writing literature review –  
December 9, 2015)*

## **The Layers of Home Education & Educational Technology**

As we analyse the four portraits more closely, they reveal that there are three factors that can work simultaneously and often tacitly to enhance students’ learning in any education context. Authentic learning, social-emotional learning [SEL] and self-regulation are the three factors in particular, or ‘layers’, that provide more ‘colour’ and ‘depth’ to the four portraits described previously. Like a landscape painting, they overlay the base of the portrait, providing a seemingly third dimension to an otherwise flat canvas (J. Paul Getty Museum, n.d.; McNee, 2014). Through exploring these

layers, a deeper and more complete literary

understanding and painting emerges of the home education and EdTech context. These layers begin to hint at the very essence of what lies at the heart of integrating EdTech in home education.

**Layer 1: Authentic learning.** The first layer, authentic learning, is a key influence in creating powerful learning environments (Garcia, 2014; Smeets, 2005). As mentioned previously under “Technology for Learning”, learning environments that are authentic engage students in actively constructing knowledge and are differentiated to each learner’s needs, which the use of EdTech can help to facilitate (Smeets, 2005). For the home educator’s context, the foundation of authentic learning is based on the teaching philosophy of the home educator, which is that learning experiences are “tailored to the needs of the individual child” (Harding, 2011, p. 235). Through a “close parent to child relationship” (Harding, 2011, p. 236), children learn in a context that is both connected to the real-world and where the parent-teacher is also a co-learner (Garcia, 2014; Harding, 2011; Smeets, 2005).

Often interchangeable with the term ‘situated learning’, authentic learning can also incorporate technology. In fact, this approach of combining these two elements has been found to positively affect tertiary students’ ability to acquire deeper knowledge (Herrington & Oliver, 2000; Herrington, Oliver & Reeves, 2003; Reeves, Herrington & Oliver, 2002). However, it can be challenging to determine what ‘authentic’ is, as what may be authentic for one student may not be for another (Herrington, Oliver & Reeves, 2003). In response to this, Barab, Squire and Dueber (2000) stated that authenticity is based “not in the learner, the task, or the environment, but in the dynamic interactions among these various components... authenticity is manifested in the flow itself, and is not an objective feature of any one component in isolation” (p. 38). Due to this, in order for students to receive the benefits of authentic learning, they need to suspend their own disbelief concerning the ‘real-ness’ of the activity (Herrington, Oliver & Reeves, 2003). The ability of being able to suspend their disbelief, like a person attending and becoming engaged in a movie that is not a reflection of real life like *Star Wars*, provides the opportunity for students to become engaged in the activity and reap the benefits (Herrington, Oliver & Reeves, 2003). Otherwise, there will be an initial reluctance and unwillingness in immersing themselves in the learning scenario, along with also not being able to engage in the task (Herrington, Oliver & Reeves, 2003). According to Herrington, Oliver and Reeves (2003) there appears to be a relationship between the ability of students to immerse themselves in the learning experience and their level of engagement.

With immersing and engaging students in the learning process appearing to contribute to authentic learning (Herrington, Oliver & Reeves, 2003; Smeets, 2005), Cambourne’s (1995) Conditions of Learning [CoL] further suggests other aspects, which include demonstration, expectations, responsibility, use, approximation and response, that may also support authentic learning. These CoL “are particular states of being (doing, behaving, creating)” in addition to “being a set of indispensable circumstances that co-occur and are

*“As I began to code the data I was gathering from the study, some other themes began to emerge that I had not considered beforehand. While not “portraits” of the context themselves, they added both more depth and colour, a 3D perspective on a flat canvas, to the relationships and processes of how a family integrates educational technology in home education. As such, I have termed these ‘layers’ and have included them in this review.”*

*(Reflection while writing literature review -  
October 6, 2015)*

synergistic in the sense that they both affect and are affected by each other” (Cambourne, 1995, p. 184). While Cambourne’s (1995) study focused predominantly on the development of children’s language, it could be suggested that these same conditions of learning may benefit other learning areas as well. This could result in the presence of these elements promoting authentic learning environments that can optimise student learning (Smeet, 2005).

**Layer 2: Social-Emotional Learning [SEL].** The second layer to give more depth and colour to education and technology ‘portraits’, social-emotional learning [SEL] has a vital role in enhancing children’s academic success and lifelong learning (Durlak, Weissberg, Dymnicki, Taylor, & Schellinger, 2011; Zins et al., 2004). An essential aspect of this approach is the different layers of relationships found in educative practice. Learning is a collaborative process between the child and the teacher, “in the company of their peers, and with the support of their families” (Zins et al., 2004, p. 3). This links with the process of how home educating families operate. Parents and children appear to also collaborate together, which can result in a variety of learning relationships, including teacher-child, parent-child co-learning together, or facilitator/guide – independent learner (Anthony & Burroughs, 2012; Cardinale, 2013; Harding, 2011; Sheehan, 2002). These learning relationships are also identified in the different roles that home educating parents adopt in Australia (Harding, 2011), which suggests that a quality of home education in Australia involves the role of SEL.

Additionally, EdTech has the potential to further enhance the role of SEL, particularly in the home education context, as the combination of EdTech and home education appears to support a connected learning approach. Connected learning is

*“socially embedded, interest driven, and orientated toward educational, economic, or political opportunity. Connected learning is realized when a young person pursues a personal interest or passion with the support of friends and caring adults, and is in turn able to link this learning and interest to academic achievement, career possibilities, or civic engagement.” (Ito et al., as cited in Garcia, 2014, p. 6)*

As revealed, connected learning utilises a collaborative and relational approach to support students’ learning through the student’s interests, which is similar to how literature portrays home education (Anthony & Burroughs, 2012; Cardinale, 2013; Harding, 2011; Jackson, 2014; Sheehan, 2002). EdTech can offer opportunities for students to pursue these interests

as well as to work collaboratively with peers and parents (Garcia, 2014; Moyle, 2010). Moreover, Moyle (2010) mentions the importance of teachers supporting students to develop social awareness and relationship skills in not only face-to-face settings, but also through using EdTech platforms in order to facilitate creating new knowledge. With social awareness and relationship skills being two SEL competencies (Zins et al., 2004), using EdTech in home education may contribute to linking student interest and SEL to academic achievement (Garcia, 2014).

*“Before starting this research project, I had never heard of social-emotional learning. But, as I began to code data, I began to realise that relationships seemed to be playing a pivotal role in the various characteristics that I was observing with my respondents. That’s when I realised that there was something deeper, underpinning and laying the foundation for qualities such as self-awareness, self-management, and responsible decision-making, in addition to other features.”*

*(Reflection while writing literature review –  
December 9, 2015)*

In fact, there is also increasing empirical evidence that SEL educational programs are positively impacting children’s personal wellbeing and the learning environment, in addition to academic success (Durlak et al., 2011; Zins et al., 2004). Other specific SEL competencies that teachers need to encourage in students include self-awareness, self-management and responsible decision-making (Zins et al., 2004). Some of these SEL competencies mentioned are already noted in home education practice. As it has been previously noted that home educators organise their program around a “personalised whole-of-the-child pedagogy” (Harding, 2011, p. 235), home educated students and parents have also reported improved “student self-awareness, self-determination, sense of self-worth and opportunity to better understand and accept oneself” (Jackson, 2014, p. 7). This has been connected to higher academic achievements and opportunities across a range of age groups and studies (Jackson, 2014). Furthermore, it also promotes a healthy emotional environment in which learning can take place (Eggen & Kauchak, 2010; McDevitt & Ormrod, 2010; Zins et al., 2004). This begins to illustrate that not only does SEL have the power to either promote or hinder learning and school success, but it also contributes to revealing some of the subtleties found in the portraits of home education and EdTech (Zins et al., 2004). One prominent feature that SEL reveals is the importance of self-regulation in learners.

**Layer 3: Self-Regulation in Learning [SRL].** The third layer, ‘self-regulation in learning’, focuses on one key feature from SEL that is part of effective learning (Eggen & Kauchak, 2010). Self-regulated learners have “two essential characteristics...their use of strategies and perceptions of self-efficacy” (Zimmerman, 1990, p. 173). While self-regulation is often associated with emotional or behavioural control, its promising results in these fields initiated educational researchers’ interest in whether it could be used by students for learning (Zimmerman, 1989). Further studies have since linked self-regulation to the student’s ability to control their attention as well as other cognitive processes (Eggen & Kauchak, 2010; McDevitt & Ormrod, 2010; Willingham, 2011). This self-management and self-awareness, linked with monitoring their responses and connecting outcomes to their strategies, results in “the ability to inhibit the automatic response to do something else” (Willingham, 2011, p. 22; Zimmerman, 1990; Zins et al., 2004). Students who can control their automatic responses become self-regulated, which is linked to increases in self-efficacy, improved intrinsic motivation and higher academic achievement (Eggen & Kauchak, 2010; McDevitt & Ormrod, 2010; Zimmerman, 1990).

With the benefits of SRL that literature suggests for students, there is an importance placed on teachers and parents to help students develop their capacity to self-regulate (Eggen & Kauchak, 2010; Willingham, 2011; Zimmerman, 1989). There are several ways in which teachers and parents can encourage the development of self-regulation skills. Firstly, teachers can create organised learning environments that also remove triggers for impulsive behaviour (Willingham, 2011). Secondly, Willingham (2011) suggests that parents can offer cognitive support in addition to emotional support. Examples of this include cognitive stimulation through questioning, intellectual resources and opportunities that encourage and support autonomous learning from students (Eggen & Kauchak, 2010; Willingham, 2011). One such example of this includes the integration of EdTech following Moyle’s (2010) recommendations. These recommendations promote self-directed learning in using EdTech, which can reinforce and promote self-regulated learning in a child (Saks & Leijen, 2014). In addition, homes where there are behaviour principles and limits that are “well-structured and consistent” (Willingham, 2011, p. 42) also support cognitive self-regulation in children, though in a more subtle way. Finally, both teachers and parents can encourage and model to students self-regulation processes. These processes include a range of strategies, such as “goal-setting, self-reinforcement, self-recording, and self-instruction” (Zimmerman, 1989, p. 1; Eggen & Kauchak, 2010). All these strategies can help promote SRL and develop children

into becoming more “autonomous, self-regulating, psychologically empowered and self-realizing and, thus, more self-determined” (Wehmeyer et al., as cited in Wehmeyer, Agran & Hughes, 2000, p. 59). According to Jackson (2009), some Australian teenagers reflected that being home educated “helped them to develop good study habits, maturity and become ‘independent learners’ with broader learning experiences” (p. 172), along with improved self-efficacy and autonomy. While the terms ‘self-regulation’ may not have been used, Jackson’s

*“Reflecting on my own personal experiences and growth as a learner who was home educated, even when I was in high school I knew that I could (and was good at it too) set goals, reinforce and manage myself to reach those goals, and find out any information I needed to know to accomplish these by myself. My self-regulation in learning began with my Mum modelling and scaffolding what these self-regulation strategies were in primary school. To be honest, I don’t even know if she actually realised what she was doing at the time. It may have just been something tacit that she did. However, in early high school I had still developed into an independent learner who was self-regulating, autonomous and self-determined. That’s not to imply that I was choosing what I did or didn’t learn. Rather Mum would specify what the learning objectives were, and I would design how I would go about achieving this in the decided time frame. I still felt very much in control of my learning. I felt empowered and confident in my ability to succeed. These skills have served me well in tertiary level study too.”*

*(Reflection while writing literature review –  
December 10, 2015)*

(2009) study may suggest that aspects of SRL could exist in Australian home education as elements and products of it are acknowledged. In addition, parents have also expressed that they value the opportunities of encouraging SRL qualities in home educating their children, suggesting a potential alignment between their home education teaching philosophy and SRL (Jackson, 2009).

## **Conclusion**

There is beauty in painting the wider landscape of literature for this research project. You begin with a canvas, the artist’s head filled with preconceived ideas, tacit impressions and a personal perspective (Bak, 2015; Gray & Malins, 2004; Polanyi, 1966). You start to sketch an outline first, only to be surprised by new ideas and old ideas challenged and refined as your painting begins to take shape. You look deeper and closer, realising that something is missing that needs to be included to complete the painting. What emerges is the result of a constant process of discovery and reflection as you interpret what research has come before you and where your research is situated now (Gray & Malins, 2004). You look at the finished painting, incredulous that

while what lies before you may share similarities with what you originally began your painting with, it has taken on its own meaning during the creating, writing and refining process (Charmaz, 2014). It is this growing process that is beautiful, both for the sake of the painting as well as the painter. Not only does it help you, the reader, in viewing the subjects of these portraits, but also it allows me, the painter, to make sense of what I am finding and enhance the quality of the research (Guba & Lincoln, 2013; Sinkovics, Penz & Ghauri, 2008). It is also why this painting is a necessary part in providing the ‘outside perspective’ as part of the crystallisation process for this research project (Ellingson, 2009).

As I continue the delicate balance of straddling the line between academic credibility and community accountability as an inside-outside researcher (Bak, 2015), I am constantly listening for the voice of literature. The literature provides me with four portraits of the literary contexts involving different perspectives of home education and technology for learning. However, while these portraits share many similarities and differences between themselves, if you analyse them closely, you can begin to notice that there is more to them than what initially meets the eye. In each one, there appears to be greater depth to them, produced by ‘layers’, which enhances the portraits and provides a greater depth that at first glance may only be realised tacitly. A portrayal of the key elements, or themes, of these paintings (Figure 2.1) appear to form the basis of the following theoretical framework for this project.

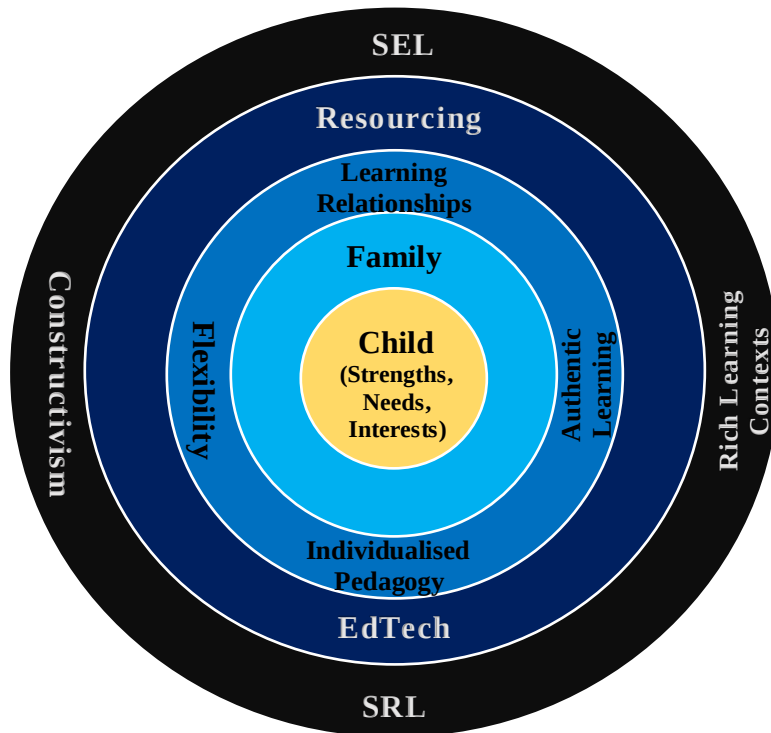


*Figure 2.1*

While there are many opportunities for research into the areas mentioned in this review, this thesis is primarily situated in seeking to explore gaps in the following areas:

1. Contributing to the understanding of how one family home educates in addition to their use of technology – both for Australian and international research.
2. Exploring the possibilities between the integration of technology and the perceived more constructivist approach of home educators.
3. Understanding the deeper pedagogical reasoning of home educators and its interplay with their teaching philosophy and practice.
4. Seeking the perspectives of both parents and children concerning what takes place in their home education.

In order for us to be able to understand and explore how this case study will help answer some of these gaps, there needs to be a careful and considered plan in place. The next chapter, “Chapter 3: The Inner Workings”, provides an explanation of the methodological framework that provides the inner structure for this research project.

## CHAPTER 3: THE INNER WORKINGS

*“New technology is common, new thinking is rare.”*

*Sir Peter Blake (Blake, n.d., para. 4)*

### Introduction

In the previous chapter, “Chapter 2: Outside Perspective”, we found that the research literature helped to paint a picture of the cultural, familial and educational milieu surrounding home education and technology for learning. This foundation provided a theoretical framework of the research context as well as situating this study in the context of previous research in the relative fields. The essence of the key themes in the research base suggests that a program which promotes authentic learning and adopts a more constructivist approach is the most effective way of integrating EdTech into education (Moyle, 2010; Smeets, 2005). Furthermore, the method of eclectic home education (Jackson, 2009, 2014), which appears to be the most common home education practice in Australia (Barratt-Peacock, 1997, 2014; Croft, 2013; Jackson, 2009, 2014), seems to already be based on an authentic and more constructivist framework that may lend itself more to EdTech than traditional classroom structures present at this time.

With these beginnings of an emerging painting of the overall research context clear in our minds, we now begin to explore the internal methodological framework and design that forms the skeletal structure for this research project. As this excerpt from my personal reflections describes,

*“The research process is a bit like building. You have to have a good foundation in place before you begin to build the frame and skeleton of the structure. Then you finish the outer shell, the interior, and then decorate (not to mention landscaping!). This methodology chapter is the frame, or ‘skeleton’, of the research project. Meanwhile, literature, emic perspective & the research question are what helps to create the foundation for the structure to be built upon. And, later on, we finish the outer shell with the data findings, and the interior and its decoration with the discussion of these. Finally, the landscaping concludes it by situating this research into the broader environment and suggesting possibilities for further research.*

*Without the frame in place, the rest wouldn’t be able to follow! The*

*integrity of the frame is central and supports all that is to come.”*

*(December 13, 2015)*

The question that was guiding this research process was:

**How does one family integrate educational technology in the home education of the primary-aged children?**

Through exploring the methodological framework used to answer this question, this chapter aims to assist you, the reader, in demystifying the process and decisions that were made as this project began to emerge (Charmaz, 2014; Rudestam & Newton, 2015). It is also important as I, the researcher, continue to move between the boundaries of the research line created by being an inside-outside researcher (Bak, 2015). After all, it is this movement and interplay between these inside and outside thinking spaces “that the potential for enrichment lies” (Bak, 2015, p. 108). Explaining the research process enabled me to reflect and question the design, process and decisions made (Van Manen, 1990), which is a process of further analysis that Charmaz (2006, p. 172) termed ‘rendering through writing’. This process assisted me in evoking an “experiential feeling” (Charmaz, 2006, p. 172) through my text, which will be described further in the next section, as well as in providing evidence of the quality and authenticity of the study (Guba & Lincoln, 2013).

However, before we explore the methodological design and process for this project, I need to explain what this chapter is not. Firstly, while this chapter is linear in its organisation, this layout does not reflect the nature of the research project. This project was an iterative journey (Crabtree & Miller, 1999) as thoughts, analytical insights and realisations occurred at various times, resulting in changes from the original plan and allowing new design features and connections to emerge (Charmaz, 2014). Secondly, this chapter is not written simply as a black-and-white report for how this project was completed, for if this chapter was written in such a ‘clinical’ style, it could reduce this project to being described as “ultimately sterile” (Barthes, as cited in Van Manen, 1990, p. 125), which does not accurately reflect the research process. Instead, this chapter seeks to describe the research process in as much colour as possible so as to capture the “journey of exploration... as a way of helping students to engage imaginatively with the research process and visualize themselves as explorers of unknown terrain” (Gray & Malins, 2004, p. 2). Therefore, as capturing this journey and adventure is essential, there are excerpts and examples of data gathering tools and tools used for analysis

included to visually present what took place (Charmaz, 2006; Gray & Malins, 2004). This approach leads to capturing the research design process in a way that enables you, the reader, to be aware of the decisions that were made and the reasoning and grounding behind them that led to the bricolage of methodologies and methods (Denzin & Lincoln, 2011) that were used.

As outlined in “Chapter 1: The Inside-Out Design”, the foundation of this project is a qualitative case study bricolage (Yin, 2009) that is interwoven with ethnography (Atkinson, Coffey, Delamont, Lofland & Lofland, 2007; Hammersly & Atkinson, 2007) and narrative inquiry (Flick, 2009), which results in the use of impressionist tales (Van Maanen, 2011). Data is gathered using the case study method (Yin, 2009) and analysed using tools from grounded theory (Charmaz, 2014) and phenomenology (Van Manen, 1990). The methodology portrait on the following page illustrates the process of the iterative and emergent nature of this project (Crabtree & Miller, 1999; Yin, 2009). Each aspect described in the portrait is explored and discussed throughout this chapter.

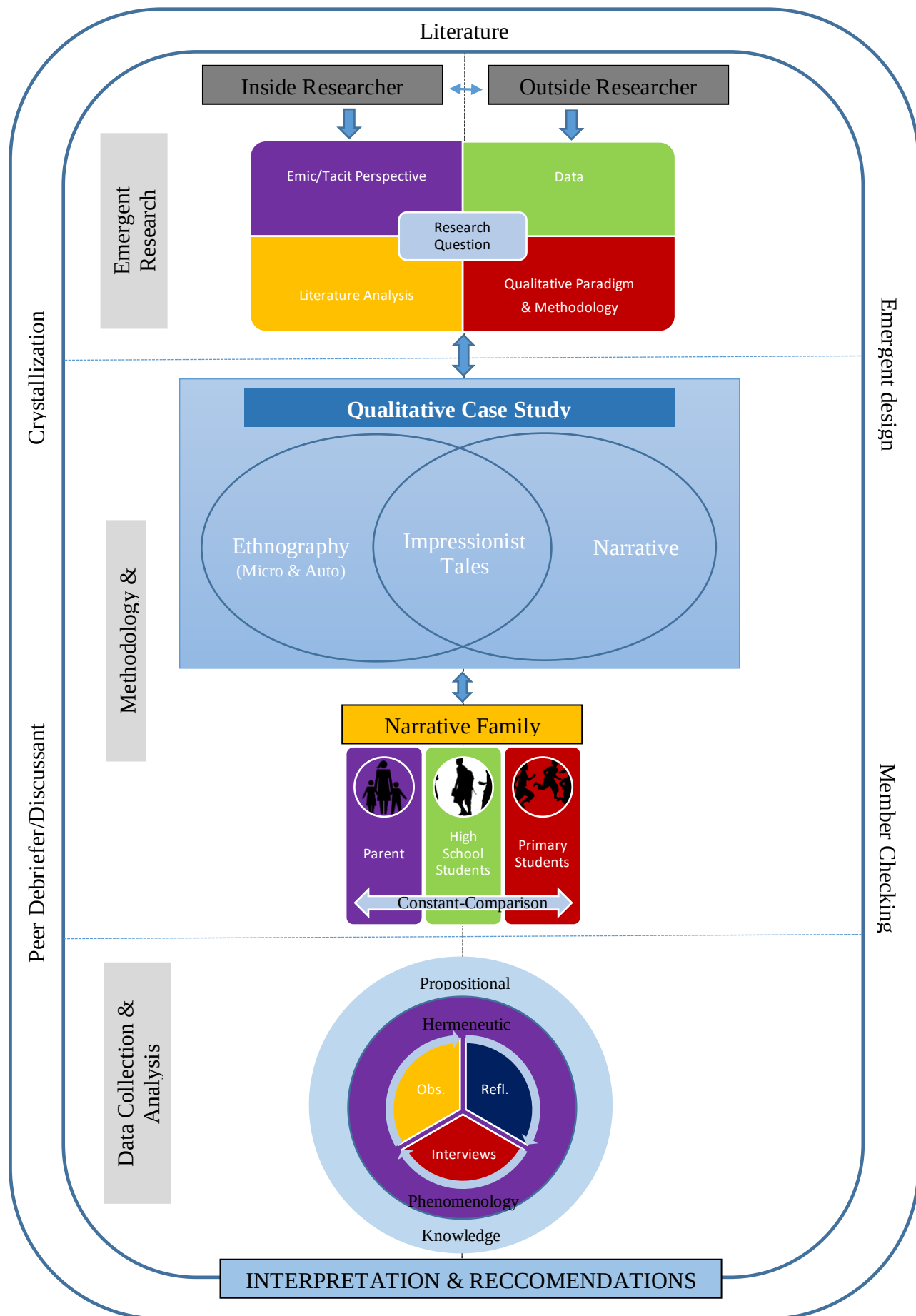


Figure 3.1

## **The Inside-Outside Researcher**

At the centre of the methodology portrait lies a middle line that separates two distinct, yet connected, aspects of my identity that position me as an inside-outside researcher. Though, this positioning of the researcher is more complicated than what may be initially expected, with the concepts of insiderness and outsidership being described as “much more complex, fluid and unpredictable” (Wegener, 2012, p. 3). As introduced in the “Prologue: The Inner Window” and “Chapter 1: The Inside-Out Design”, I was home educated for 10 years of my formal schooling. From Year 3 to Year 12, my family and I were engaged in primarily the eclectic home education approach. We also associated with others home educating families through organised home education sports groups, though we interacted with many other families and individuals outside of the home education field as well. This association and familiarity with home education is what makes me an ‘insider’. In fact, “insiderness is ... a result of the person’s biographical profile, political activities, research agenda and the relationship with the community under study” (Labaree, 2002, p.102). However, by the very nature of my “becoming a researcher”, I “will always be something of an outsider in ... [my] own community” (Bridges, as cited by Bak, 2015, p. 107). Furthermore, I have also chosen to become a primary school teacher, which is also outside of the home education field. It is at these points where both my own insiderness and outsidership collide and connect together to form a juxtaposition that plays a vital role in my position as a researcher, as well as in enriching this research project (Bak, 2015).

While the inside-outside approach has been used and considered in research before (Bak, 2015; English, 2015b; Wegener, 2012), the role and positioning of an inside-outside researcher has been debated in the past (Bak, 2015; West, Stewart, Foster & Usher, 2013). One observation that Griffith (as cited in Bak, 2015, 106) made is that while the researcher is “always located somewhere” along this line between being an insider and outsider, there is also movement “between the boundaries of insiderness and outsidership”. This movement between the two positions is “more complex, fluid and unpredictable” (Wegener, 2012, p. 3). During the course of this research project, I found this to be the case as well. There were moments where I had to draw deep on my own ‘insider’ understanding of home education to connect and uncover tacit knowledge in my respondents (Niedderer, 2007; Polanyi, 1966). Furthermore, my ‘outsider’ understanding of mainstream education and literature base also facilitated this movement between insider-outsider and in making the transition from tacit to

propositional knowledge (Niedderer, 2007). As Bak (2015, p. 108) describes, “Indeed, it is ultimately in the interplay – the spaces in-between – that the potential for enrichment lies, but it calls for attentiveness on the part of the researcher”.

An example of the switching between the two positions involves my confusion over the discrepancy between how my respondents explained their decision-making process compared with how Australian home education literature explains the decision-making process. After my first round of interviews, I was reflecting on the questions I had asked and the respondents’ answers (see Appendix A). I consulted literature and still felt like I could not craft the right question to ask in the second round. Instead, I drew on my own home education experience, and my researcher’s gut thought it was important to ask the question about how the students learn best, and also discover what role this might play in programming. Here is an entry from my reflective journal after the second round of interviews took place:

*“I have just been re-looking over the data that I gathered from the interviews and I’m struck by some differences in thought. Firstly, from the second round interviews, I feel that I’m uncovering some tacit knowledge of the parent. My gut instinct paid off! In the first interview, Emily [mother] was very adamant that the children pretty much didn’t have a say [in what she chose for schoolwork]. She was open to hearing some suggestions, but that she was ultimately responsible. HOWEVER, the children actually appear to have more of a voice than Emily consciously realised as the second interview revealed that she plans a lot of the programming around their strengths, needs and interests. Therefore, it is actually in-line with what Barratt-Peacock says about a learner-driven approach. This was also becoming more evident in the “Aha” moment re: learning dispositions and that Emily’s knowledge of her children largely matched with what the children knew about their learning dispositions, though they were interviewed separately.” (September 14, 2015)*

From this example, it becomes apparent how both the inside and outside roles can interact with each other and are drawn from at different times for a variety of purposes through reflexivity (Bak, 2015). In addition, the example also reveals the use of auto-ethnography as part of the research process. Drawing from personal experience, I was able to use “insights

from auto-ethnography specifically (Ellis, Adams, & Bochner, 2011) as a tool to provide a lens” (Bak, 2015, p. 96). This ‘lens’ then enabled me to craft a question that enriched this study by making an opening into an area where knowledge had been ‘tacit’ (Polanyi, 1966) beforehand and may have remained so without my personal familiarity with the phenomenon. Other examples of my auto-ethnographic lens can be found throughout all chapters in this thesis, sometimes set apart in textboxes and at other times embedded in the text.

One final aspect of the inside-outside researcher involves the positioning of the alternative form of education to mainstream education (Bak, 2015). This is one of the challenges that I have found in researching home education as there is a “tendency for alternatives [in education] to be positioned in oppositional, or competitive, terms” (Bak, 2015, p. 98). To make it explicitly clear, my role as an inside-outside researcher is two-fold. Firstly, in the context of this research project, I am representing and making known the understandings and practices of those engaged in home education who integrate EdTech. As such, “I need to be able to show genuine familiarity with complex concepts in order to represent them faithfully” (Bak, 2015, p. 100). While home education itself may be well-known, the details of what this actually is can be sketchy and sometimes skewed by media interpretations “in the eyes of those familiar with it” (Bak, 2015, p. 100). Because of this, this project includes additional details, especially in the “Chapter 2: The Outside Perspective” literature review and “Tale from the Field” in Chapter 4, of the home education process to enable you, the reader, to have a broader understanding of the home education context. Secondly, I am also ensuring that the account I give “stands up to academic scrutiny of the field more broadly, and in terms that I do not ‘lose’ the educational audience, and that are not taken as merely ‘advocating’ rather than ‘researching’” (Bak, 2015, p. 100). It is due to this position and ensuring academic quality (Guba & Lincoln, 2013) that there is a strong literature base throughout all stages of this research project, as noted by the all-encompassing ‘frame’ of the methodology portrait. Therefore, instead of presenting this research as oppositional or competitive to mainstream education, it is positioned “as part of a multiplicity or part of a diverse ecology of educational approaches” (Bak, 2015, p. 94).

### **The Framing Tools of the Inside-Outside Approach**

The role of the inside-outside researcher is also linked to the frame of the methodological portrait (Figure 3.1). These aspects, such as the role of literature (Barbour, 2014), emergent design (Charmaz, 2006; Lochmiller & Lester, 2016), member-checking (Charmaz, 2014),

crystallization (Ellingson, 2009), peer debriefer and discussant (Drapeau, 2002), were key tools throughout the entire project and contributed to balancing the insider-outsider perspectives while fairly representing the findings from respondents. In order to capture the way in which these tools were employed at multiple and various stages of this project, I have situated them within the following sections of the methodological design to reflect how their involvement occurred in the field.

## Research Question

Considered to be “the most important step to be taken in a research study” (Yin, 2009, p. 10), as well as being responsible for positioning me as an inside-outside researcher, is the research question which



Figure 3.2

guided this project. After all, the designing of “the research question of a qualitative investigation is one of the decisive factors in its success or failure” (Flick, 2009, p. 129). It was the iterative interplay between my insiderness as well as my outsiderness, as well as the data from my respondents, that allowed the research question to emerge, transitioning the question from being only emic grounded to being propositional in nature (Niedderer, 2007). As illustrated in Figure 3.2, there were four perspectives that triangulated, referred to as ‘crystalized’ in this project (Ellingson, 2009), with each other to create the research question (Flick, 2009). The way in which these four perspectives, including my emic/tacit perspective, literature analysis, data, and the qualitative paradigm and methodology, worked together to develop the question is discussed in the following paragraphs.

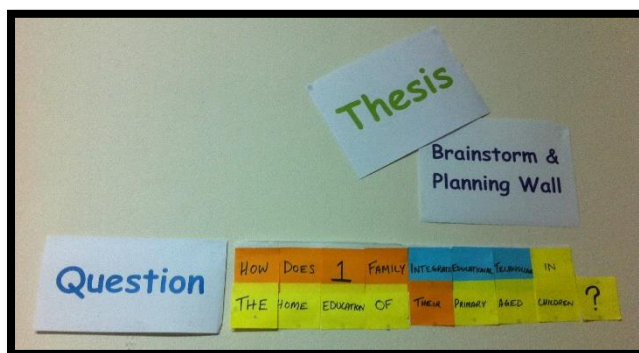


Figure 3.3

**Development of question.** As my research journey began, I knew that making my research visible was going to be essential for helping me to make sense of it. (Charmaz, 2006; Gray & Malins, 2004). With this in mind, I wanted to choose a means of visually representing the development of my

research question that captured its emergent nature during the research project. One of the visual strategies that I employed was the use of coloured notes to capture the changes in my

research question (Charmaz, 2006; Gray & Malins, 2004). Figure 3.3 illustrates the progression and refinement of the research question over three stages. The first stage was represented through yellow notes, the second through orange, and the third through blue. The thought processes and influencers that led to each stage are briefly outlined.

### **Initial question.**

***“What is the efficacy (if any) of digital and computer-based technology in the home education of primary-aged children as perceived by three parents?”***

Crafting this initial question, also featured in Figure 3.4, stemmed predominantly from my emic perspective and experiential knowledge from being a student in the home education field (Chapman & Kinloch, 2011; Niedderer, 2007), as well as choice of paradigm (Flick, 2009) and methodology (Hammersly & Atkinson, 2007; Yin, 2009). As introduced in “Prologue: The Inner Window”, my personal experience with how the changes in technology resulted in changes in my family’s home education practices led to me wondering if other home educating

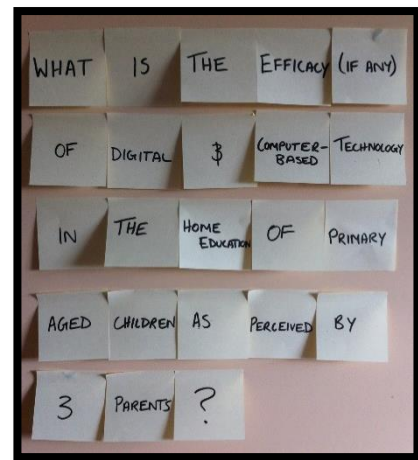


Figure 3.4

families in Australia were using technology as part of their program and how they did this. Secondly, from a graduating teacher’s perspective, I was interested in whether the way in which home educators were using technology for school was similar or different to mainstream education practice, and if either mainstream or home education could learn something from each other.

With these thoughts, I began to explore literature to begin designing my research project (Barbour, 2014) with the initial question driving my design (O’Leary, 2014). I determined that in order to understand what was taking place I needed to be qualitative in order to understand the complexities, similarities and differences between respondents, sites and within the broader home education context (Flick, 2009). Yin (2009) further contributed to the methodological design by outlining qualitative case studies. The question fitted being a case study question as I was exploring contemporary phenomena “within a real-life context” in which I “had little control over events” (Yin, 2009, p. 2). However, even with some

important facets of the design being decided, it soon became apparent that some changes needed to be made to the question. As my reflection journal entry during this time revealed,

*“I am highly frustrated at the moment. The question just isn’t sitting well with me...” (April 3, 2015)*

Was efficacy really what I was wanting to focus on with the use of technology? Would using the perceptions of three parents give me a clear understanding of what is truly happening? I went back to the question and began experimenting with different words and journaling to try to narrow my focus, tighten the wording, and to determine just what it is that I was wanting to know. Through this process, as well as through discussions with my peer debriefer and discussant (Drapeau, 2002), a more refined question emerged from the initial question that was more holistic (Yin, 2009) and do-able (Barbour, 2014; O’Leary, 2014). Furthermore, it targeted an area that appears to have limited literature available, both internationally and in Australia, specifically filling a gap in research.

## Second stage.

***“How does one family implement digital and computer-based technology in the home education of their primary-aged children?”***

The initial question changed from looking at the efficacy as perceived by three parents to painting a larger picture of how a family implements digital and computer-based



Figure 3.5

technology. In order for this study to be holistic case study (Yin, 2009) and capture the full picture, I needed to explore both the parents’ and children’s perspectives. Therefore, the decision was made to study one nuclear family, which was also influenced by reading home education literature, as research suggests that home educating families collaborate together to inform practice (Anthony & Burroughs, 2012; Cardinale, 2013; Harding 2011; Sheehan, 2002) and to meet the individual educational needs of the child (Anthony & Burroughs, 2012; Barratt-Peacock, 2014; Harding, 2011). For similar reasons, the question also changed from a ‘what’ to a ‘how’ question, as shown in Figure 3.5. With very little data available on how home education families use technology (Neil, Bonner & Bonner, 2014), particularly in Australia, discovering the thinking and decision-making processes, in addition to the

technology resources used, would provide us with a deeper understanding of the educational context and process of the research site.

**Third stage.**

***“How does one family integrate educational technology in the home education of their primary-aged children?”***

Finally, during the course of collecting and analysing data, two changes also emerged. Through

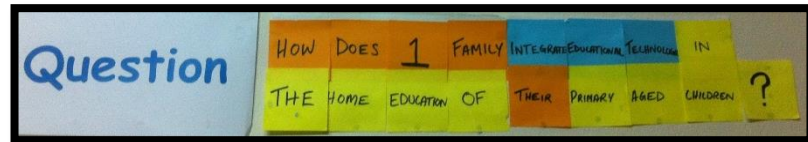


Figure 3.6

analysing literature and discovering the types and use of technology from respondents, digital and computer-based technology was replaced with the term ‘educational technology’.

Furthermore, from reflecting and analysing the findings of the first round of interviews, the term ‘implement’ was changed to ‘integrate’, as ‘integrate’ reflected the nature of how the respondents were actually using educational technology in their practice, as evident in Figure 3.6. Table 3.1 summarises the key elements of the final question that emerged from the four perspectives of crystallization and drove this project to completion.

| <b>Question Elements</b>               |                                                                                                                                                                                                                                                                                                                                                                                                                                |
|----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>How</b>                             | This project is a qualitative case study that is studying the relationship between two recent phenomena over which the researcher has minimum control over what is taking place (Yin, 2009). The case study method is typically the preferred method when answering ‘how’ questions (Yin, 2009).                                                                                                                               |
| <b>does one family</b>                 | Home education is a collaborative process between family members (Anthony & Burroughs, 2012; Cardinale, 2013; Harding, 2011; Sheehan, 2002). Therefore, it was important for the study to include the different perspectives found in the family unit to provide a holistic and deep understanding of the research site and context. One family also helps to make this question and study concrete and focused (Flick, 2009). |
| <b>integrate</b>                       | <p>Definition: “to <i>combine two or more things in order to become more effective</i>” (Cambridge University Press, 2016).</p> <p>This addressed not just the initial implementation of technology, but the continued use as well. During data collection, I realised that technology is not just being used as an add-on, but as a key, useful tool to enhance learning.</p>                                                 |
| <b>educational technology</b>          | Terminology that was informed through literature and the use of technology by respondents – “Educational technology is the study and ethical practice of facilitating learning and improving performance by creating, using, and managing appropriate technological processes and resources” (Januszewski & Molenda, 2008, p. 1).                                                                                              |
| <b>for the home education</b>          | In formal and academic contexts in Australia, ‘home education’ is usually the term used to describe the process of schooling a child at home where the parents are responsible for the planning, implementation and practice of schooling (Drabsch, 2013; Jackson, 2009; Queensland Department of Education & Training, 2015).                                                                                                 |
| <b>of their primary aged children?</b> | According to the proposed figures by state governments in Australia, two-thirds of home educated students are primary school aged, therefore being a majority according to registered figures (Jackson, 2009, in press).                                                                                                                                                                                                       |

Table 3.1

## Paradigm

As mentioned previously and featured in the Figure 3.1, the qualitative paradigm played a key role in the crafting of the research question, therefore positioning this project within the qualitative research paradigm. This choice of research paradigm was largely driven by the nature of the research question, the inside-outside research approach, the purpose and site of the study. As outlined previously, the research question was exploring how one particular

family home educates their primary-aged children with EdTech. Therefore, the qualitative paradigm was most suited to answering this question due to several factors:

- “Allows us to access ‘embedded’ processes by focusing on the context of people’s everyday lives where such decisions are made and enacted” (Barbour, 2014, p. 15). As shared in “Chapter 4: The Inside Experience”, there were some aspects of the home education process and integration of EdTech that were tacit to the parent (Niedderer, 2007; Polanyi, 1966). Therefore, I needed to access these hidden, “embedded processes” (Barbour, 2014, p. 15) in order to understand what was taking place.
- Takes into account that there are differences in the life experiences between those that practice home education - a “pluralization of life worlds” (Flick, 2009, p. 12; Van Manen, 1990) or “multiple realities” (Barbour, 2014, p. 22). This is particularly important for this study due to the uniqueness that can be found in each home education context (Keenan, 2013). The paradigm chosen needed to allow for sensitivity and flexibility to capture these difference in life experiences and communicate them (Ellis et al., 2011; Van Manen, 1990), which the qualitative paradigm can offer.
- It is “well-suited to studying context” (Barbour, 2014, p. 16). This can then provide an “illuminating *process*, whether this is organizational change or individual decision-making, since it allows us to examine how changes affect daily procedures and interactions” (Barbour, 2014, p. 16). This was especially important as I was trying to understand the underlying process of integrating EdTech in home education.
- De-mystifies the subject “by providing [the foundation for] detailed accounts of experience” (Barbour, 2014, p. 17).

These characteristics of the qualitative paradigm enabled this study to be holistic, in-depth and sensitive, as well as the ability to utilise my position as an inside-outside researcher. In addition, the qualitative paradigm also allowed the question to evolve as this paradigm “involves an iterative process” (Barbour, 2014, p. 27), which is reflected in the “Methodology Portrait” (Figure 3.1) and has been explained previously in this chapter. With the paradigm selected, we now move on to methodology.

## Methodology

Stemming from the research question and paradigm choice, a bricolage of methodologies (Denzin & Lincoln, 2011; Gray & Malins, 2004) was created. Figure 3.7

demonstrates how this bricolage worked and the relationships between the methodologies.

A qualitative case study (Yin, 2009), laid the foundation and core framework for this study. Situated within this foundation, a combination of auto-ethnography (Ellis et al., 2011) and micro-ethnography (Hammersly & Atkinson, 2007) mixes with the narrative method (Flick, 2009). This point of mixing produced the impressionist tale (Van Maanen, 2011), through capturing and presenting the ethnographic context in the form of a narrative. Each of these individual methodologies and their role in the research project are outlined below.

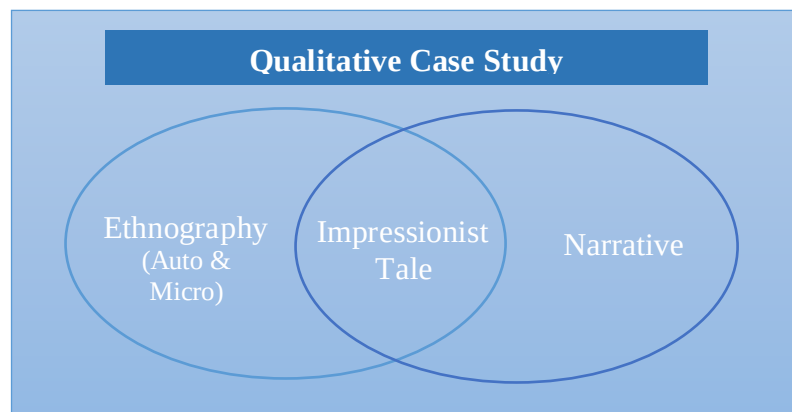


*Figure 3.7*

**Qualitative Case Study.** With the qualitative case study approach aligning with the research question, this methodology offered the ideal foundation for the methodology bricolage for this study. The research question needed a methodology that could also explore the interactions between two contemporary phenomena and discover the decision-making process of the respondents (Flick, 2009; Yin, 2009). In addition, it also needed to be sensitive to the research site and acknowledge that the site is outside the control of the researcher (Flick, 2009; Yin, 2009). This criteria matched with the case study approach as outlined by both Yin (2009) and Flick (2009). The purpose of a case study is to investigate contemporary phenomena in real-life contexts (Yin, 2009). Furthermore, it is to “illuminate a decision or set of decisions: why they were taken, how they were implemented, and with what result” (Schramm, as cited by Yin, 2009, p. 17). This is exactly what was needed to understand how one family is integrating EdTech into the home education of their primary-aged children.

With this theoretical foundation, a single yet holistic case study began to be designed (Yin, 2009). Respondents were selected using purposive sampling based on the case (Flick, 2009). Data collection methods were typical case study methods, as will be discussed later, though they also involved aspects of a narrative approach and ethnography, as such “open case-sensitive approaches” (Flick, 2009, p. 134) provide a more instructive case study (Flick, 2009). In addition, one of the issues for a case study concerns the “integration of the different perspectives on the case” (Flick, 2009, p. 143). However, through the combining of ethnography and narrative, the impressionist tale combines the multiple voices and perspectives involved in the case into the tale, bridging this gap and making this study holistic while reconstructing the case for the reader (Flick, 2009). Finally, a hermeneutic analysis of the data and findings would seek to discover the deeper truths embedded in the research context, which is viewed as one of the more fruitful analysis strategies for case studies (Flick, 2009).

**Auto-ethnography.** While playing a more minor role compared to the other methodologies in this section, auto-ethnography is a core component of inside-outside research and this project (Bak, 2015). As Ellis et al. (2011, p. 274) describes, auto-ethnography’s purpose involves the desire to:

*“... concentrate on ways of producing meaningful, accessible, and evocative research grounded in personal experience, research that would sensitize readers to issues of identity politics, to experiences shrouded in silence, and to forms of representation that deepen our capacity to empathize with people who are different from us.”*

In essence, it is the study of a researcher’s “own life and its context” (Hammersly & Atkinson, 2007, p. 1). Throughout this project, you, the reader, have been privy to my thoughts and reflections, some of which shared my personal experience with home education, as well as the personal experience of engaging in this study with my respondents. I have endeavoured to use my role as an inside-outside researcher as a proverbial bridge to help two different schools of thinking and practice to access and understand what each is doing through literature and the research field’s context. An example of this is found in the *Evidentiary Warrant* (see Appendix B) that links data from the field with literature, which will also be discussed further in “Three Stages of Coding”. Furthermore, it is the links between auto-ethnography, narrative method and impressionist tales that communicate and

represent the experiences of this project in a way that seeks to deepen our understanding of a group of people who are different from the mainstream, which also aligns with Ellis et al. (2011) quote above.

**Micro-Ethnography.** Micro-ethnography extends the boundaries of auto-ethnography to offer a “descriptive account of a community or culture” (Hammersly & Atkinson, 2003, p. 1) as opposed to the researcher’s life (Hammersly & Atkinson, 2003). However, the duration of the time in the field is more limited than the sustained amounts of time that are usually undertaken in ethnographic research (Charmaz, 2014). Despite this, micro-ethnography still endeavours to make the strange familiar and the familiar strange (Gordon, Holland & Lahelma, 2007). This is a crucial part of this project as while the term ‘home education’ may be well-known, the actual details of what this entails are actually sketchy in the minds of others (Bak, 2015). Furthermore, the media’s portrayal also sometimes skews the appearance and understanding “in the eyes of those familiar with it” (Bak, 2015, p. 98). Therefore, in order to assure the quality (Guba & Lincoln, 2013) of this project, it is essential that this study is “...grounded in a commitment to the first-hand experience and exploration of a particular social or cultural setting on the basis of (though not exclusively by) participant observation” (Atkinson et al., 2007, p. 4).

In the case of this project, micro-ethnography contributed to informing data collection methods and representing findings. The methods used for data collection were based on capturing peoples’ actions and accounts in everyday contexts (Hammersly & Atkinson, 2007). This involved observations “of everyday life in naturally occurring settings” (Delamont & Atkinson, as cited in Gordon, Holland & Lahelma, 2007, p. 188), as well as semi-structured interviews (Kvale, 1996; Thomas, 2010) to gain a deeper understanding of the decisions and events taking place. When it came to representing these findings, it was essential that the method chosen provided a description of the respondents’ context and life (Denscombe, 2007). Therefore, ethnography mixed with aspects of the narrative method to result in presenting the findings as an impressionist tale, rich in describing not only the answers to the research question, but in offering knowledge based on first-hand experience and exploration into the social-cultural setting of a home educating family (Atkinson et al., 2007).

**Narrative.** The use of narratives in this project reflects more a method of presentation as opposed to an inquiry method. It was chosen as a means to communicate findings (Czarniawska, 2009) in a way that provided a rich framework (Webster & Mertova, 2007) to reveal “how it really was” (Flick, 2009, p. 182) in the field. While narratives are “well suited to addressing the complexities and subtleties of human experience in teaching and learning” (Webster & Mertova, 2007, p. 1), narrative inquiry is not as effective in capturing everyday life as other methods are (Flick, 2009). As highlighted earlier, capturing everyday life is an important aspect of the ethnographic aspect of this project (Hammersly & Atkinson, 2003; Gordon, Holland & Lahelma, 2007). Therefore, I used semi-structured interviews (Kvale, 1996; Thomas, 2010), which will be discussed in more detail in “Data Collection & Analysis”, as opposed to narrative interviewing to gather the data to present it in narrative form. I did, however, use some situation-orientated narrative questions in the second round of interviews to gain some personal narratives from the respondents on specific topics (Flick, 2009). This gave the respondents the opportunity to share anecdotes concerning their home education experience, the integration of EdTech, and the results of these processes.

This decision of using predominantly non-narrative methods of collecting data, yet using a narrative to present the findings (Flick, 2009), resulted in additions to the methodological framework to ensure the quality of the research still remained (Flick, 2009; Guba & Lincoln, 2013). These additions acted as a ‘safety barrier’ by preventing misrepresentation and “blind spots” (Drapeau, 2002, p. 1), as well as offering different layers of accountability.

Throughout the coding process, collating data and presenting the data in a single narrative, I involved my peer debriefer and discussant (Drapeau, 2002; Lincoln & Guba, 1985). This process ensured that in the coding and writing stages, I did not have “blind spots” (Drapeau, 2002, p. 1), and it also promoted my own self-reflection and supported finding new possibilities (Drapeau, 2002). In addition, I used member-checking as another component of creating the narrative as another means of crystallising the findings as well as checking quality (Ellingson, 2009; Guba & Lincoln, 2013). Therefore, framing qualities from the methodological portrait (Figure 3.1), including peer-debriefer, discussant, member-checking, and crystallisation, laid the groundwork for constructing a narrative that is both fair and authentic (Guba & Lincoln, 2013). And, in turn, writing the narrative assisted in the transition from tacit or implicit knowledge to explicit through the writing process (Charmaz, 2006; Niedderer, 2007; Polanyi, 1966).

**Impressionist tales.** Where the methodologies of ethnography and narrative overlap is exactly where the impressionist tale sits (Figure 3.4). Impressionist tales “draw attention not only to the culture of study but also to the way of fieldworker’s location and experience in the field help him produce a text to interpret” (Van Maanen, 2011, p. 118). Like an impressionist painting, it is a method of capturing a scene or moment in time in a way that is figurative yet “conveys a highly personalized perspective” (Van Maanen, 2011, p. 101). There is an implied closeness with the field and respondents, which is reflected through the “informal, down-to-earth, modest, [and] accessible demeanour” (Van Maanen, 2011, p. 108) that the tale uses. It was due to the holistic and dramatic nature of impressionist tales, their ability to share “the spirit of the tale” (Van Maanen, 2011, p. 109) while capturing the “doing of fieldwork rather than simply the doer or the done” (Van Maanen, 2011, p. 102), that they were chosen as the means in which to present the findings (Flick, 2009).

However, the way of presenting the impressionist tales changed through the course of the project. Originally, the plan was to write separate tales that highlighted the different voices from the field, particularly the students and parents. As soon as I began writing, though, I suddenly realised that this would not work. Here is an excerpt from my reflection journal on this matter:

*“Initially, I was going to organise the findings in separate impressionist tales to distinctly separate the student’s voice from the parents. However, once I began writing this section and reflected on it, I realised I couldn’t do that! Both voices are woven together like a tapestry. A single thread does not equal a tapestry, neither does a tapestry exist without a single thread. The presence and interweaving of many threads makes a tapestry – the full picture. Therefore, just as these different voices naturally interact each other, so have I chosen to reflect this in the construction of this impressionist tale, allowing the essence of what is taking place to emerge”*

*(Reflection while writing Chapter 4 – January 26, 2016)*

So, instead of writing multiple short tales, the findings are presented in one continuous tale. This allows you, the reader, to imaginatively transport yourself into the field alongside me (Van Maanen, 2011) and reconstructs the case study (Flick, 2009). In addition, as the fieldworker’s experience is also key to producing the tale, my own voice and thoughts are

included in the tale. In this way, I am “building a rich and openly partial account of a phenomenon that problematizes its own construction, highlights researchers’ vulnerabilities and positionality, makes claims about socially constructed meanings, and reveals the indeterminacy of knowledge claims even as it makes them” (Ellingson, 2009, p. 4). The impressionist tale in “Chapter 4: The Inside Experience” captures the respondents in the practice of everyday life as well as my interactions with them (Van Maanen, 2011) and my practice of “thoughtfulness” (Van Manen, 1990, p. 12), which could also be described as “reflection in action” (Van Manen, 2008, p. 1). Including this form of reflection in the tale “seeks to make external what somehow is internal” (Van Manen, 1990, p. 127) and reveals the journey in refining and crystallizing knowledge to make it explicit and propositional through the respondents’ and researcher’s interactions (Ellingson, 2009; Gray & Malins, 2004; Neidderer, 2007). It is this practice of “thoughtfulness” (Van Manen, 1990, p. 12) that lays a foundation for uncovering the deeper truths, or “essences” (Van Manen, 1990, p. 10) of this case study.

### Methods, Gathering Data & Analysis

Contrary from the sequence provided in the Methodological Portrait (Figure 3.1), in order to preserve the logic flow we will discuss data collection and analysis alongside the remaining methodology and design aspects of the case study. With the question guiding the research design and the overall methodological framework informing and outlining the practical aspects of the project, it was time to identify the criteria for purposive

sampling (Flick, 2009), what data gathering methods would be useful in answering the question, and how this data would then be analysed. As Figure 3.8 shows, it was important that the voices of the homeschooling parent and primary students were captured for this project to be holistic and instructive. After the family was selected, with the criteria discussed further in the following sections, the design of the case study changed to include the perspectives of the high school students in the family who had also experienced home education in their primary years, as this offered a glimpse into the long-term development of integrating EdTech into home education. This led to exploring the interaction between the three different groups of perspectives in order to enable a narrative family portrait to emerge that could capture and present this case holistically.

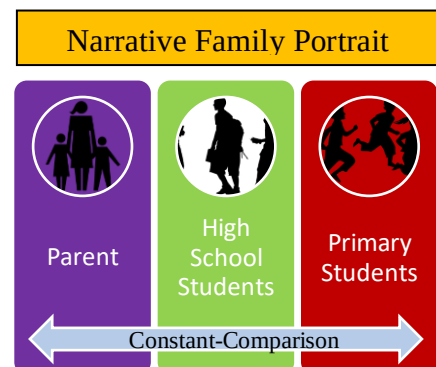


Figure 3.8

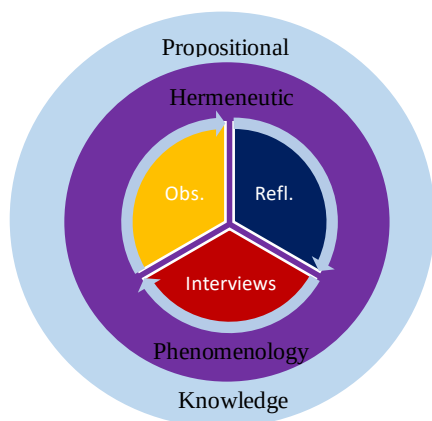


Figure 3.9

With the criteria for selecting respondents (Flick, 2009) and the purpose of gathering rich data that captured the multiple perspectives in this project (Charmaz, 2006), a model for gathering data and analysing it emerged. Figure 3.9 illustrates how this process took place and the relationships between the data gathering and analysis components of the project. The central component of this phase were the three data collection methods. These methods interacted with each other, as demonstrated by the arrows (Figure 3.9), as they were analysed using constant-comparison (Charmaz, 2014), which promoted the crystallization of the findings (Ellingson, 2009). In other words, the various methods of gathering data offer different angles, or perspectives, of the research context that can then interact with each other, therefore creating knowledge that reflects the multidimensionality and complexities of the case (Ellingson, 2009). As Richardson (as cited in Ellingson, 2009, p. 3) explains:

*“...we do not triangulate, we crystallize. I propose that the central image for ‘validity’ for postmodern texts is not the triangle—a rigid, fixed, two-dimensional object. Rather, the central imaginary is the crystal, which combines symmetry and substance with an infinite variety of shapes, substances, transmutations, multidimensionalities, and angles of approach.... Crystallization provides us with a deepened, complex, thoroughly partial, understanding of the topic. Paradoxically, we know more and doubt what we know. Ingeniously, we know there is always more to know.”*

Associated with crystallization as an analysis tool is grounded theory’s comparative method (Charmaz, 2014; Ellingson, 2009) and the ethnographical importance of being “intimately familiar” (Ellingson, 2009, p. 54) with the research context and immersing oneself in the data. Through the course of coding the data using the comparative method, this crystallization process led to the analysis being nested in a phenomenological hermeneutic approach (Van Manen, 1990) that sought to understand the essence of what was taking place in the research context. This, in turn, expanded and deepened our understanding of what was taking place and assisted in transitioning the tacit and emic knowledge we had in the initial

stages of the project into being propositional knowledge (Niedderer, 2007). That is, knowledge that has been crystallized through the interplay involving various sources, such as respondents, researcher, literature and peer-debriefer and discussant (Drapeau, 2002; Lincoln & Guba, 1985), to produce an explicit understanding of the research findings (Ellingson, 2009; Niedderer, 2007). The following sections provide further detail describing the reasons and applications of these aspects of the research design.

**Narrative family portrait.** Before unpacking the specifics in the design of the methods and analysis, I just want to explain the ‘big picture’ of what the methods and analysis were aiming to achieve. As the design of this study is a holistic, yet also embedded, qualitative case study (Yin, 2009), this project looks at a single case from multiple perspectives. This means that, in order to understand what is happening, I needed to organise all the different threads individually before assembling them all together in order to unravel what is taken place in the field. In order to do this, I decided to use semi-structured interviews (Kvale, 1996; Thomas, 2010), observations (Yin, 2009) and my own researcher reflections (Ellingson, 2009; Rudestam & Newton, 2015; Thomas, 2010) to help construct who each respondent is, what their role is in the field, as well as what the ‘whole picture’ looked like. In other words, a family is made of individual members, each having their own identity and role in the family, however we also need to see how they interact as one complete family to deepen our understanding of what is taking place. The narrative family portrait takes into account their individuality as well as their wholeness. The reason for this approach is to assist in understanding the respondents, their interactions and the research context as a whole (Hammersly & Atkinson, 2003; Van Maanen, 2011). After all, “knowledge cannot be assumed and concepts not taken as based on commonly accepted assumptions” (Bak, 2015, p. 98). In order for a clear picture of what is happening to emerge and to offer a “descriptive account of a community or culture” (Hammersly & Atkinson, 2003, p. 1), understanding the respondents’ context and life was essential for understanding and analysing the study (Denscombe, 2007). The result of this approach is the inclusion of individual character descriptions and the tale from the field which captures the multiple perspectives acting in a single case, which is found in ‘Chapter 4: The Inside Experience’.

**Purposive sampling.** With the thoughts of keeping this study manageable and do-able in the time frame available (Barbour, 2014), yet also being holistic in capturing what is happening in the field, I needed to be purposefully selective in approaching respondents

(Flick, 2009). As this is a single-case study that is exploring how one family is integrating EdTech in the home education of their primary-aged children, the research question offered the starting point for the purposive sampling criteria. Homeschool literature further expanded on this by offering a description of common home education characteristics, particularly those relating to Australia. The following table (Table 3.2) outlines the criteria and a brief explanation for it.

| <b>Purposive Sampling Criteria</b>                   | <b>Explanation</b>                                                                                                                                                                                                                                                            |
|------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Long-term home educating family</b>               | Changes typically occur in the home education [HE] approach around two years after they begin, hence suggesting a long-term family is more settled in their approach (Drabsch, 2013; Keenan, 2013)                                                                            |
| <b>Uses educational technology for schooling</b>     | Purpose of the question. Relates to international HE research that suggests that HE families are making use of technology and that parents select from a range of educational resources (Andrade, 2008; Anthony & Burroughs, 2012; Hanna, 2011; Neil, Bonner & Bonner, 2014). |
| <b>Has primary aged children being home educated</b> | Purpose of the question. Relates to the fact that the majority of HE students are primary-aged (Jackson, 2009, in press).                                                                                                                                                     |
| <b>From either Victoria or Tasmania</b>              | HE regulations appear the most flexible in these states currently (Drabsch, 2013), suggesting that it may be easier for parents to use a range of teaching resources, including EdTech.                                                                                       |
| <b>Adopts an eclectic approach to HE</b>             | Suggests a more flexible and adaptable approach to learning tailored to students needs and strengths (Jackson, 2009, 2014), which fits in with effective use of educational technology in the classroom (Moyle, 2010).                                                        |

Table 3.2

The family that was selected as respondents met this criteria. In addition, the family had two high school-aged students, one who had been home educated till Year 9, while the younger high school-aged student was still being home educated in Year 9. It was decided that their

voices would also be included in the narrative portraits to understand what changes have taken place and what their own reflective thoughts were on their home education experience and with EdTech.

**Gathering data.** The three methods of collecting data were observations (Yin, 2009), researcher reflections (Ellingson, 2009; Rudestam & Newton, 2015; Thomas, 2010) and semi-structured interviews (Kvale, 1996; Thomas, 2010). This bricolage of methods was selected based on the methodological framework of this study and the research question (Denzin & Lincoln, 2011; Gray & Malins, 2004). The following table (Table 3.3) explains how the collection of data took place and the reasons influencing the decisions.

| Method                     | Reasons                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Appearance & Use in the Project                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Observations               | <p><b>Ethnography:</b> To capture the everyday life of respondents (Hammersly &amp; Atkinson, 2003; Gordon, Holland &amp; Lahelma, 2007)</p> <p><b>Case Study:</b> To gain necessary information to reconstruct the case (Yin, 2009)</p> <p><b>Research Question:</b> To provide an understanding of the practical application in the research context that extends beyond the theoretical and even respondents' explicit knowledge (Niedderer, 2007)</p>                                                                                                  | <p>3 observations with a duration of 1-3 hours.</p> <p>Provided information for the impressionist tale – the reconstruction of the case.</p>                                                                                                                                                                                                                                                                                                                         |
| Researcher Reflections     | <p><b>Inside-Outside Researcher:</b> To promote and record the interplay between my insiderness and outsidersness in order for it to be a lens that can enrich this study (Bak, 2015).</p> <p><b>Grounded Theory &amp; Crystallisation:</b> To assist in the transition from tacit/emic knowledge to propositional knowledge (Ellingson, 2009; Niedderer, 2007)</p> <p><b>Impressionist Tale:</b> To capture my journey and involvement in the research context (Van Maanen, 2011) as well as the practice of “thoughtfulness” (Van Manen, 1990, 2008)</p> | <p>Personal reflective journals that covered observations, interviews, literature and general research reflections, as well as in capturing the development from tacit to propositional theory (Creswell, 2013; Niedderer, 2007).</p> <p>Inclusion of selected reflections throughout thesis.</p> <p>Inclusion of my voice and involvement in the impressionist tale (Van Maanen, 2011).</p>                                                                         |
| Semi-structured Interviews | <p><b>Research Question:</b> To provide insight into the thinking and decision-making process of the respondents.</p> <p><b>Case Study:</b> To gain necessary information to reconstruct the case (Yin, 2009).</p> <p><b>Narrative:</b> To facilitate the sharing of situation-orientated narratives from personal experience that extended beyond the observational experiences (Flick, 2009).</p>                                                                                                                                                        | <p>Two rounds of interviews with three focus groups (Kvale, 1996) – parent, high school-aged students, and primary-aged students. Duration between 20 – 45 minutes.</p> <p>Trial interviews – check wording of questions prior to interviewing respondents.</p> <p>Inclusion of some situation-orientated narrative questions during interviews (Flick, 2009).</p> <p>Provided information for the impressionist tale of the case (Van Maanen, 2011; Yin, 2009).</p> |

Table 3.3

During the data collection process, careful attention was paid to ensuring the quality of the data (Guba & Lincoln, 2013). Member-checking was a key aspect of ensuring this.

Interview comments and the model that emerged from the coding process were checked by respondents for accuracy and meaning. Furthermore, permission was gained from each respondent and all the data collected was in accordance to the ethics approval granted (see Appendix C).

**Analysis of data.** With the data in the process of being collected, it was time for the coding process to begin. As highlighted earlier, constant-comparison was one of the key tools in coding the data from the interviews and observations (Charmaz, 2014). Because of the different data sets from the three focus groups, constant comparison became the method of choice for coding data and generating theory (Charmaz, 2014; Glaser & Strauss, 2012). This meant that data was compared between interviews and observations, the interviews of different focus groups, and different interviews with the same focus group. The purpose for this method is to “organize and reduce the data gathered into themes or essences, which, in turn, can be fed into descriptions, models, or theories” (Walker & Myrick, 2006, p. 549). Therefore, information from the interviews is broken down, comparisons made between interviews as well as observations and reflection notes, before they are collapsed into themes which form the base for the model outlined in “Chapter 5: The Inside-Outside Interpretation” (Walker & Myrick, 2006). This helps to ensure that the model for home educating with EdTech is “integrated, consistent, plausible, [and] close to the data” (Glaser & Strauss, 2012, p. 103). Another key reason for this process was to ensure that the coding was grounded in examples from interviews and observations, resulting in findings that are tightly linked to the research context and representing them to a high level of quality (Guba & Lincoln, 2013). In addition, this comparative form of coding also facilitated phenomenological hermeneutics as the coding process began to refine and focus the findings from raw data to themes and essences that captured what was taking place at a deeper level (Charmaz, 2014; Van Manen, 1990). There are three stages of coding involved in this comparative method (Charmaz, 2014), which will be discussed further in the following section along with examples from this project.

**Three stages of coding.** The first coding stage involved careful line-by-line analysis and making memos, as illustrated in Figure 3.10 (Charmaz, 2014). The purpose of these strategies was to begin to unpack the knowledge contained in the interviews in order to synthesise what was occurring (Charmaz, 2014). The key words highlighted and/or memos were then transferred onto index cards so I could lay them out and view them altogether. As

I was doing this, I was also making comparisons between the data sets.

Were there any similarities or differences between them (Walker & Myrick, 2006)? How do the responses relate to the research question? What stood out? These strategies all laid the foundation for the second stage of coding.

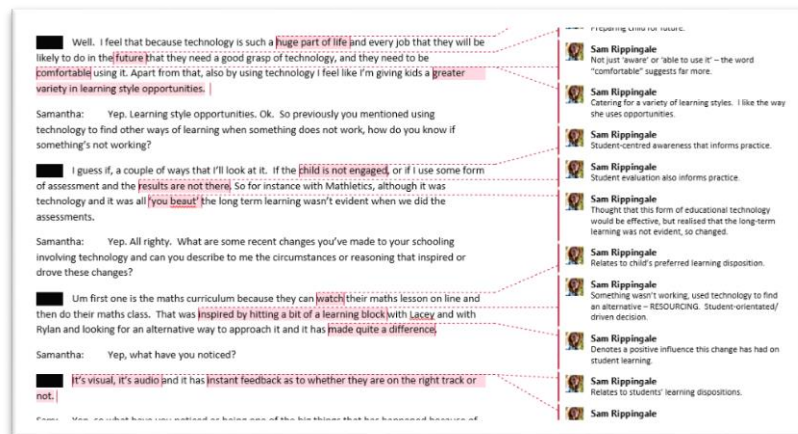


Figure 3.10

The second stage required collapsing the codes that were created in the initial stage into categories that could then be used to create themes and a model in the third stage (Charmaz, 2014; Walker & Myrick, 2006). As mentioned previously, I am a visual learner, so with all the knowledge swirling in my head I needed a way to present all the data I had coded so far in order to make sense of it (Gray & Malins, 2004). Taking the many index cards with memos and key words, I began grouping, or “clustering” (Charmaz, 2006, p. 86), those that



Figure 3.11

the coding process.

Before using these categories to create a model in the third stage, I needed something to help me collate all the information I had to ensure the quality of it (Guba & Lincoln, 2013), as well as trying to uncover the essences of what was happening in the research context (Van

Manen, 1990). Therefore, I compiled an evidentiary warrant (Figure 3.12), which acted as a bridge between the second and third stages while also encouraging an iterative approach to coding as I constantly had to return to the raw data and first level coding as well. The four headings for the warrant:

| Evidentiary Warrant                                                                                                  |                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|----------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Question: How does one family integrate educational technology in the home education of their primary-aged children? |                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Code/Theme                                                                                                           | What does this tell me about the Question?                                                                                                                                                                                                        | Context and/or process                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Literature                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Dynamic Curriculum                                                                                                   | The integration of ET is in a constant state of change that is dependent on the needs and learning dispositions of the child, the assessment of the parent on the ETs effectiveness, student-parent collaboration, and availability of resources. | <p>P2: "First one is the maths curriculum because they can watch their maths lessons online and then do their maths class. This was inspired by hitting a road block with L and with R and looking for an alternative way to approach is and it has made quite a difference." (p.1)</p> <p>P2: "So, for instance with Mathematics, although it was technology and it was all 'you beautiful', the long term learning wasn't evident when we did the assessments." (p.1)</p> <p>Ob 22/7: It recently located the online art lesson videos that were both age-appropriate, level-appropriated and well structured. This was due to a need in finding something to teach art as it is an area that R doesn't feel particular strong in. It was <i>improbable and difficult for this Rock</i></p> | <p>Home educators adopting the eclectic model select "from a menu of educational choices to meet students' individual instruction needs" (Anthony &amp; Burroughs, 2012, p. 1). This results in a curriculum that tends to be student-orientated, student-driven and utilises a wide variety of resources (Barratt-Peacock, 2014; Jackson, 2014). The eclectic model appears to be the most common model that the majority of Australian home educators adopt, especially long-term homeschooling families (Barratt-Peacock, 2014; Croft, 2013; Jackson, 2009). However, Keenan (2013) remarked that this transition into a less-structured, informal learning environment could occur after as little as two years (Drabsch, 2013).</p> <p>"self selected, delight directed learning of the home educated child" (Barratt-Peacock, 2014, p. 17)</p> <p>"By contrast the only limit on what home educated children learn is their own stamina and interest!" (Barratt-Peacock, 2014, p. 6)</p> <p>"Home education does not focus merely on the learning 'MEETS' of the child, whereas schools select what that means, but</p> |

Figure 3.12

1. Code/Theme
2. What does this tell me about the Question?
3. Context and/or Process
4. Literature

By completing this evidentiary warrant, I not only collapsed many of my categories further and revealed how the categories were grounded in both data and literature, but also the essences that were key to reconstructing the case (Charmaz, 2006; Van Manen, 1990; Yin, 2009). This was due to the *Evidentiary Warrant* facilitating the synthesis and comparison of codes (Charmaz, 2014), as well as crystallizing the codes in terms of their meanings and actions (Charmaz, 2006; Ellingson, 2009) along with literature. As a result, the codes became more focused (Charmaz, 2006) while keeping them "simple, direct analytic and emergent" (Charmaz, 2014, p. 19).

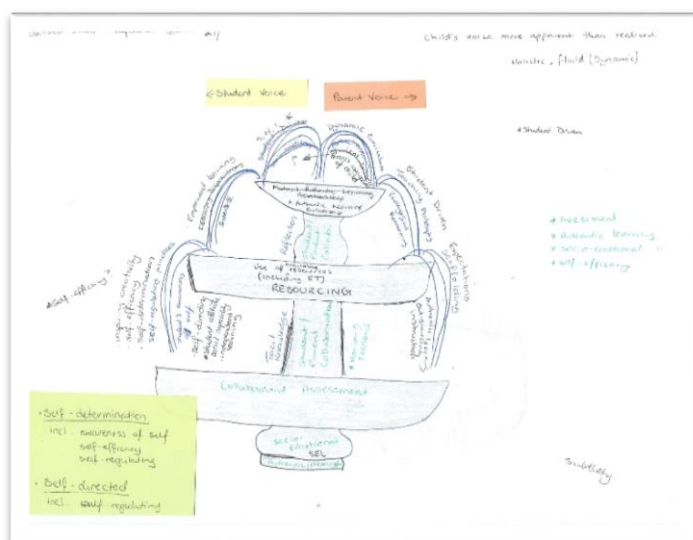


Figure 3.13

From the *Evidentiary Warrant*, I then had to piece together the relationships between the different themes. What was central to how home educating families integrated EdTech? What was at the top? What model design did this need? Through discussion with my discussant and reflecting on my immersion in the data, a model that reflected a tiered fountain began to emerge.

*“I frequently talk with my hands. In all honesty, sometimes I don’t even realise that I’m doing it – it just happens. Today as we [myself and discussant] talked about possibilities for the model, I began making gestures as I responded to questions about how various aspects of the evidentiary warrant related to each other. At one particular point, I could not initially think of the words to say, but my hands were already in the process of moving before I could even articulate what I was trying to say. That’s when I noticed my moving hands were tracing the pattern of water cascading down a tiered fountain. That’s when I had a light bulb moment and realised that a fountain model revealed the relationships between the themes/essences the closest to how they appeared in the field” – (Reflection Journal, October 28, 2015)*

Figure 3.13 was my first draft of the Fountain Model. Water cascades in two different directions, representing the two key voices in the study, yet it mixes in the same tier at each respective level. There is a stand that represents the themes that provide the foundation for the whole fountain, while the centre column offers the core principal that connects the tiers together and recycles the water-flow process up to the top again. Returning to the *Evidentiary Warrant*, I suddenly began realising the relationships between the themes, drawing on evidence from the field, and created the model. The themes featured were:

| Themes from Coding Process   |                                    |                                 |                                    |
|------------------------------|------------------------------------|---------------------------------|------------------------------------|
| Dynamic curriculum           | Student-driven teaching philosophy | Empowered learning              | Strengths, needs & interests (SNI) |
| Authentic Learning           | Pedagogical reasoning              | Expectations                    | Authentic learning partnership     |
| Resourcing                   | Inspiring creativity               | Self-directing                  | Awareness of child                 |
| Student-parent collaboration | Social capability                  | Independent learning            | Student's attitude                 |
| Scaffolding                  | Collaborative assessment           | Social-Emotional Learning (SEL) | Outsourcing instruction            |

Table 3.4

This process of understanding the relationships and interactions between the themes, alongside reading literature, further focused the themes until they could not be collapsed any further and the model represented what took place in the field (Charmaz, 2014; Yin, 2009). As a result, no longer was I dealing with raw data or tacit knowledge, but had transitioned into propositional knowledge by making what was tacit in the field explicit (Niedderer, 2007). The context for this development of knowledge, and my own engagement in this “journey of exploration” (Gray & Malins, 2004, p. 2), is revealed and described through my interactions and experiences with the respondents shared in the following chapter, “Chapter 4: The Inside Experience” (Gray & Malins, 2004).

## CHAPTER 4: THE INSIDE EXPERIENCE

*“Technology is just a tool. In terms of getting the kids working together and motivating them, the teacher is most important.”*

Bill Gates (Johnson, 2014, para. 7)

### Introduction

In the previous chapter, “Chapter 3: The Inner Workings”, it was revealed that case study (Yin, 2009), ethnography (Atkinson et al., 2007; Hammersley & Atkinson, 2007; Van Maanen, 2011) and narrative methods of research (Flick, 2009) provided a strong methodological base for this research project. From this bricolage, the use of impressionist tales emerged from the intersection of these methodologies, providing a method to describe the findings of this project (Van Maanen, 2011), which is the purpose of this chapter. Due to this decision to present the data gathered in an impressionist tale, this chapter is laid out differently from the traditional structure of Chapter 4. Combining field worker experience and the art of narrative writing, one continuous story is written that represents and captures life as the researcher has observed and experienced in a way that captures the real-life detail, just as a painter would capture in a painting (Van Maanen, 2011). Furthermore, the tale “draw[s] attention not only to the culture of study but also to the way of fieldworker’s location and experience in the field help him produce a text to interpret” (Van Maanen, 2011, p. 118). Therefore, it is also important that I include my own voice and actions in this narrative in order to help capture and communicate “the spirit of the tale” (Van Maanen, 2011, p. 109). In other words, this approach is used to give you, the reader, the experience of looking as if through a window into a scene at a particular point of time (Van Maanen, 2011). It is a view of life captured in colour and shared with you. This window into the respondents’ lives and a painting of life seeks to answer the following question:

### **How does one family integrate educational technology in the home education of their primary-aged children?**

As an inside-outside researcher, my position of straddling the lines of familiarity with both home education and mainstream education was used as a link between these two different forms of education. In this chapter, there is both the voice of literature as well as my own voice guiding you as you take your ringside seat (Van Maanen, 2011) to meet the Parker

family and how they integrate EdTech into their home education program. This approach aims to familiarise you, the reader, with experiencing the research site as I did through my interactions and experiences with the respondents (Bak, 2015; Gray & Malins, 2004; Van Maanen, 2011), with links and insights made using literature to highlight important themes that emerged from the study (Charmaz, 2006, 2014). This means that the narrative will also reveal my practice of “thoughtfulness” (Van Manen, 1990, p. 12) by sharing the development in my own thinking as well as how I interacted and observed the Parker family (Van Maanen, 2011). Through outlining this “journey of exploration” (Gray & Malins, 2004, p. 2), this chapter seeks to highlight both the context and the process of making tacit knowledge in the field explicit (Niedderer, 2007; Polanyi, 1966). This development in knowledge is also signified in the tale through the words or phrases in bold, in order to highlight the themes, or essences (Van Manen, 1990), that emerged from the coding process (see “Chapter 3: The Inner Workings”) within the context of the research site. In addition, as a result of the combination of my voice, which is also featured in the reflective inserts in this chapter, and the use of an impressionist tale, the tone of this chapter is both informal and more personal (Van Maanen, 2011). This tone is also fitting considering the familial and ethnographic context of this study in addition to the informal, down-to-earth nature of an impressionist tale (Van Maanen, 2011). As such, the more colloquial term ‘homeschooling’ will feature in this chapter as opposed to ‘home education’, as this is the term the Parker family uses.

The multiple perspectives included in this research project, comprising of five members of the Parker family, myself and literature, were key to the holistic and hermeneutic nature of this study (Flick, 1998; Gray & Malins, 2004; Van Manen, 1990; Yin, 2009). These two qualities of this study were essential in “gaining a holistic understanding of the whole [‘system’], as well as an understanding of the parts, and how these integrate into a whole” (Gray & Malins, 2004, p. 75). Considering that this project is exploring home education, which is a field that currently has limited literature in Australia (Jackson, 2014) due to challenges in researching it (Keenan, 2013; Drabsch, 2013), having a broad yet deep understanding of the research site can therefore contribute in explaining and making familiar what is taking place (Bak, 2015). This excerpt from my reflections explains more:

*“Initially, I had thought to organise this section to distinctly separate the students’ voices from the parents’. However, once I began writing this section and reflected on it, I realised I couldn’t do that! Both voices, [the*

*parents' and the children's] are woven together like a tapestry. A single thread does not equal a tapestry, neither does a tapestry exist without a single thread. The presence and interweaving of many threads makes a tapestry – the full picture. Therefore, just as these different voices naturally interact with each other, so have I chosen to reflect this in the construction of this impressionist tale, allowing the essences of what is taking place to emerge”*

*(Reflection while writing Chapter 4 – January 26, 2016)*

As a result, the impressionist tale is created from collating anecdotes (Flick, 2009), observations (Yin, 2009) and interview responses (Kvale, 1996; Thomas, 2010) together from all respondents of the Parker family, in addition to my own reflective journals (Ellingson, 2009; Rudestam & Newton, 2015; Thomas, 2010). This data is then used to produce one continuous story, an impressionist tale (Van Maanen, 2011), that captures the whole picture and essence of what is taking place (Van Manen, 1990). By creating a single, continuous story, I want to give you, the reader, a close representation of the experience that I can to being in the field with the Parker family. This allows the story and its characters to do all the talking and reflects the crystallization process of offering the opportunity to build “a deepened, complex, thoroughly partial, understanding of the topic” (Richardson as cited in Ellingson, 2009, p. 3). In this way, you may be able to see the different threads and voices that are woven together to create a tapestry that captures the holistic nature of the layers and complexities that existed in the research context.

### **A Cast of Characters**

As you take your ringside seat, ready to immerse yourself in the tales from the field (Van Maanen, 2011), I will briefly introduce you to the members of the Parker family.

## Parents.

*“Studies suggest that parents only homeschool their children for as long as it suits their children’s best interests, which can also be considered from a long-term perspective (Jackson, 2014).”*



*(Reflection while writing Chapter 4 – January 11, 2016)*

Emily and David have been married for 22 years and have four school-aged children. They are both tertiary educated, with Emily being a registered primary teacher. While David works full-time during the week, Emily homeschools their four children. Emily shares that their decision to home educate stemmed from an experience that occurred while she taught in a private school in Adelaide. The Reception teacher at Emily’s school was “amazing”, however Emily observed that a large group of students from the public system, who had transferred into the school, had difficulty reading and writing. Because of this Emily decided that she would homeschool her children if she did not have absolute confidence in the Reception teacher. As a result, she began homeschooling her eldest child, Daniel. However, as Daniel did not start reading independently till Year 1-2, they “were in the swing of it [homeschooling], so we just kept going” (Parker, personal correspondence).” Interestingly, Emily was also homeschooled for her first two years of schooling, then transitioned into mainstream schooling “in Grade 2 with no problems!” (Parker, personal correspondence). Later on, her family moved to the Pacific, which led to the decision being made to use distance education for Years 10-12 instead of attending the international school in the area. Emily comments that she loved the flexibility this offered, allowing her to start study at 5am, swimming in between subjects, and the finishing early and having the afternoon and evening free.

On meeting the Parker family, ‘connectedness’ appears to be a strong part of the Parker family life and not just within their immediate family. The family lives near to many members of both Emily and David’s extended family and regularly connect with them. Their social calendar also seems to be well booked up as it was sometimes a juggle to arrange times for me to meet with them. It would appear that hospitality seems to be a core value of the family, with visits from friends and family during the week and weekends. Emily’s personality also reflects an openness and good cheer that makes any visitor feel welcome at

once. However, her teaching and motherhood experience is also apparent in her no-nonsense attitude when it comes to certain matters, such as educating her children and running the household.

### **High school children.**

*“Why are we also including the high school-aged children in our study? Because they give us an understanding of how the family’s home educating practice involving educational technology has evolved over time, revealing the essence of the ‘how’ and ‘why’.”*



*(Reflection while writing Chapter 4 – January 11, 2016)*

The names of the two eldest children are Daniel and Timothy. Daniel is 17 years old and is in Year 11. After being homeschooled for 9 years, a joint decision was made first by Emily and David, then agreed to by Daniel, for Daniel to attend a local independent Christian school and complete the rest of his secondary education there. This decision was made due to the feeling that Daniel would benefit more from having a primarily mother/son relationship with Emily and having a range of teachers. During my interviews with Daniel, a few key things that stood out to me were his ease and confidence in communicating, his apparent fondness over favourite parts of his homeschooling when reflecting on it, and that there appeared to be no animosity or superiority between one form of education to the other from his personal experiences. Daniel plans to go on to tertiary education.

Timothy is 14 years old and is in Year 8. While Daniel transitioned into mainstream education in Year 9, Timothy will be continuing to be homeschooled. One of the main reasons for this is that Timothy asked if he could be homeschooled for another year so he could focus on maths and computer before being locked into a set group of subjects. During the interviews, Timothy appears more reserved than his brother. This could also be due to him carefully considering his responses to the interview questions or the dynamic of interviewing his older brother at the same time, who appears to naturally take the lead. Outside of the interviews, Timothy shows a sense of humour and a broad understanding of the world, ranging from politics and current events to entertainment. Looking towards the

future, he is unsure at this point in time as to what he will do, though he believes it will involve computers and that he wants to go on to tertiary education.

### **Primary-aged children.**

*“With indicators suggesting that around two-thirds of home educated student in Australia are primary-aged (Jackson, 2009, in press), as well as estimates of 50,000 home educated students in Australia with numbers still growing (Drabsch, 2013; Townsend, 2012), it certainly appears that researching the primary-aged group may provide useful information that may benefit home education and the majority of families who choose it.”*



*(Presentation to faculty forum - June 1, 2015)*

Daniel and Timothy have two younger sisters who are primary-aged. Zoe is 11 and in Year 5, while Mia is 9 and in Year 3. Both girls have very different personalities. Zoe has a cheerful disposition and appears thoughtful in the way she conducts herself. She is also usually quieter than Mia, who is predominantly cheeky and vibrant, smiling and laughing a lot, while getting restless if she is sitting still for too long. Both girls engage in friendly sibling banter, even in front of me. They both love Irish dancing, which they compete in, and are involved in other recreational and social activities as well. Both girls seem to share an enthusiasm for homeschooling in general, and appear to have the ability to keep themselves focused and on task with little input from Emily, though Zoe seemed to manage to keep this focus for longer periods of time. Zoe's focus also seems to lead her in being very conscientious and methodical in the way she works, while Mia appears to enjoy creativity more. Differences are also found in their learning preferences, though these will be looked at further in the tales from the field.

### **Tales from the Field**

**My arrival.** *I'm sitting in my car on the side of the road just before I walk up to the Parker family's house. There are so many questions rolling through my head. Am I ready to find out how the Parker family integrates EdTech into the schooling of Mia and Zoe? I think briefly over my own homeschooling experience and what the Parker's may do or do differently. My mind latches on to curiosity and excitement as I'm finally going to be able to find some answers to a*

question that has been stuck in my brain for what seems too long. But mostly, I want to open my mind to the possibilities. I want to go in aware of my preconceived notions that all my personal experiences and literature have led me to, but yet be completely open to the very possibility that there will likely be things I don't initially understand. There may be new understandings or applications of technology that I and literature have never thought of. For all I know, the Parker family may not be anything like the homeschooling family described in Australian literature! But whatever may lie beyond the Parker's front door, it is a part of a jigsaw. It is a piece of truth, "situated, partial, [and] constructed]" (Ellingson, 2009, p. 10) by the Parkers.

**The school and classroom.** From the first moment the Parkers open the door for me, I was ushered into their brick home in the eastern suburbs of Melbourne. Two primary-aged girls, Zoe and Mia, are the first to greet me, with Mia being particularly enthusiastic, bouncing on the balls of her feet. Their mother, Emily, calls out from the kitchen, "Come on through, Sam. I have just to put these biscuits in the oven". I immediately feel at home, surrounded by reminders of my own childhood and family life. The smell of food baking, the affection between family members and school materials scattered around the lounge area, showing the movement of trying to find a good spot to study. Some books are on the couch, others on the floor or near a reclining chair. The sun is streaming in through the windows, where a computer and maths book are lying open. Outside the window I can see the backyard with gardens, a chicken pen, basketball hoop, trampoline and swing set. Nothing in the house or backyard sets it exceptionally apart from that of any other family, apart from the presence of the different teaching resources.

Emily smiles as I enter the open kitchen and dining room. "I hope you don't mind, but we have to leave for swimming after we talk and the girls aren't quite ready yet," looks at the two girls, "before you girls talk with Sam, can you get your swimming gear all ready to go, please?" The girls scamper off and then quickly return, regaling to me what they are going to be doing at swimming class. During the conversation, I find out that Zoe and Mia not only do swimming, but also participate in other extra-curricular and recreational activities. They have

*music lessons, attend recreational clubs similar to scouts and are involved in church activities. The more recent addition of Irish dancing is the girls' particular favourite, where they hope to start entering more competitions. Over previous years, they have also met with other homeschoolers for team sports, such as basketball, as well as gymnastics, learning German and for special science classes that ran occasionally at a local private high school. No wonder there had been challenges organising times to meet with them! By all appearances, the family seems to live a happy and active life, with a lack of socialisation not appearing to be evident.*

*As Emily finishes clearing up the kitchen bench, the girls show me where they do their school. My first impressions of the lounge room being the hub for most of the learning proved correct. "I normally like to sit on the comfy couch," says Mia. "I generally prefer to sit at the table or with something against my back as my back gets really sore," shares Zoe. Picking up the PC and leaning against the window with it on her lap, she straightens an assortment of textbooks, workbooks and reading books. I walk further into the lounge and sit on the carpet, where Mia comes and sits next to me in front of the crackling fire. I look around the room as we chat and notice that an iPad is perched near the edge of the couch and that there is a TV in the back corner with an HDMI cord hanging out unplugged. I wonder if they ever use that as part of schooling?*

*Mia begins to tell me what she has been up to, occasionally being interrupted by Zoe who corrects her or shares her own thoughts. In all honesty, Zoe and Mia show no signs that being questioned about homeschooling or my presence is anything out of the ordinary. They are sitting relaxed and are answering and asking me questions, smiling and making the occasional joke. Zoe seems to hesitate a couple of times before answering, but after I smile and share how there is no 'right answer', and how her answers can be different from Mia's, Zoe grins and laughs, "That's good, because we are really different!". Mia joins in giggling, "Sure are!"*

*Emily enters the room with a large smile, pausing to take stock of what is happening in the room, before getting the girls on task with their schoolwork.*

**Decision time.** As Mia and Zoe quickly get comfortable and begin to work, my mind is curious as to how the decision process works in what takes place in the first case. After Emily finishes moving around and checking that each girl has what she needs and gives any final instructions, I ask her. Emily gives me a humorous smile “In our school, I am the principal and the teacher. I make all the teaching decisions while my husband supports whatever I choose to do”. My mind starts turning this over along with what I recall from the literature I have read. “What about the role that the children have in the decision process?” I inquire. Emily’s eyes open a bit wider in surprise and coughs, “Well, I’m open to suggestions from the children on some things and they can try to convince me why, for example, changing a paper-based assignment to a technology-based one would be advantageous, but it’s my choice. I am the teacher”. This had my mind whirring. Most of the literature I had been reading on Australian home education seemed to suggest that families **collaborated** and were **student-driven** (Barratt-Peacock, 2014; Jackson, 2014), which was also suggested in some international literature (Anthony & Burroughs, 2012; Cardinale, 2013; Davies & Aurini, 2003; Sheehan, 2002). How could this be if the children seemed to have very little say in the decision-making process? I knew I was going to have to do some more reflection and research into this. How was I to respond or make sense to this new development that appeared to be in contradiction to what Australian research suggested? Good thing I like puzzles.

During a break between schoolwork and while Emily left the room, I ask Zoe and Mia what their role was in the decision-making process. Perhaps they might perceive things differently? Both girls look at each other and think for a bit. Mia replies first, the crinkles on her forehead easing as she answers “When I’m making posters, I get to choose what colours I make it. I always ask Mum about whether I should do this or that”. “Some things we get to choose. I get to choose what order I do my work in and stuff like that” answers Zoe confidently. “Yeah,” added Mia, “but sometimes when you’re like, being naughty, you’re not allowed to start off with something like electronics.” Once again, it seems that from both parents’ and children’s perspectives, the parent is the one who makes the main decisions as to what takes place, while there seems to be room for

students to make some smaller decisions. However, my researcher's gut isn't letting this point just slide. I just get the feeling that there must be something else hiding away that maybe no one actually realises at this point in time. Could I be missing something?

So, drawing on my own experience of homeschooling, I ask the girls, "How do you think you learn best?" To be honest, I was not even sure if Zoe and Mia were going to grasp what I was asking. But to my surprise, both girls seem to become more animated, like a puppet all of sudden coming to 'life' in someone's skilled hands, as they begin to fluently talk, one after the other and sometimes interrupting or talking over the other person. With their excitement in sharing, I became excited myself. Their enthusiasm made me wonder if I may have stumbled across something, a key to a locked door. They began sharing **strengths** and **needs**, what learning methods worked for them and what didn't work so well. I was blown away by their understanding of not just different ways of learning, but in their own **self-awareness** of what worked and didn't work for them. Mia believes she learns best through reading and writing, with watching being her favourite way to learn. Interestingly, Mia's least favourite way to learn is when she is told specifically what to write instead of being able to write things the way she wants to. Zoe, on the other hand, finds listening and watching things helpful, though she doesn't enjoy writing so that is her least favourite way to learn. Incidentally, their most enjoyable memory of using EdTech also linked with the preferred ways of learning. Could this suggest that linking the use of EdTech to a child's learning preferences can promote a positive **student attitude** and enjoyment of learning? Or does it go deeper than this, that because such a link is made, the learning that takes place becomes more meaningful and connected to the student? In turn, this could also promote **authentic learning**, as learning resources are linked to a student's **strengths** and **needs**, which could "develop a new type of learner, contextualised in the real world" (Harding, 2011, p. 236) as well as a powerful learning environment, especially when linked with EdTech (Smeets, 2005).

When Emily returns to the lounge and the girls go into the back yard, I ask Emily about the similarities and differences between the two girls and if these play a

role in what she chooses to do. Her answer is a definite “Yes!” She identifies the various ways each girl learns best, which parallels with what the girls themselves had shared, though she adds tactile to Zoe’s preferred methods of learning. With my own excitement building, I share that I had asked the girls the same question. Eyebrows raised, Emily looks surprised. Curious to know the answer, Emily asks, “How did they answer that question?” The fact that their answers align with hers seems to surprise her as much as it did me. However, it reveals that Emily has a rather accurate **awareness of her children’s learning strengths and needs** and that these are taken into account in what she chooses to do, which aligns with what other research suggests (Anthony & Burroughs, 2012; Barratt-Peacock, 2014; Harding, 2011; Jackson, 2014).

As my mind continued to piece the puzzle together, I ask Emily how she knew if something, such as a teaching resource, wasn’t working for the girls. With her head tilted to the side, Emily replies, “I guess there are a couple of ways I look at it. If the child is not engaged, or if I use some form of assessment and the results are not there, then I relook at it and change it”. And that’s when everything snapped into place in my head. There it was, the answer to the way in which homeschooling is a **collaborative process between the parents and the child**. The ‘something’ that was hidden which while the Parkers did it, they had not realised at that point the essence of what they were doing. Zoe and Mia do have a prominent voice in what takes place – it just might not necessarily be an actual audible one. Emily does not make educational decisions void of Mia or Zoe’s voice. Instead, Mia and Zoe’s voice is found in the focus of including what engages them in the learning process, the ways they learn best and enjoy, and in their results. The parent’s voice is not running solo in the homeschool decision-making process, but is **collaboratively assessing** with the child’s as these two different threads wrap around each other and produce something stronger. The whole process involves a parent-student **learning partnership**.

When I reflected on this realisation later on, I wondered if this parent-child collaboration also might explain why the Parker family chooses the flexibility and adaptability of the eclectic home education approach compared to the other

alternatives (Croft, 2013; Jackson, 2009, 2014; Keenan, 2013). That is, in order to better accommodate the strengths and needs of Zoe and Mia, Emily needs to have the freedom to tailor learning activities.

**What to use?** After realising how the **collaboration** was taking place, which seemed to be a core part in the integration of not just EdTech but their homeschooling practice in general, the next thing was to learn what resources they use and for what purpose. I thought back over a story Emily told me earlier in the visit:

*“For a time we were using Mathletics. When I came across it, I was like ‘you beaut’. After all, it was technology, the kids enjoyed it and it covered the curriculum. As time went on, though, I began to realise that while the kids enjoyed it, the long-term learning was not evident when I tested them.*

*Zoe had also hit a bit of a learning block as well with maths. So, I searched and found another resource to help teach maths. Using the internet, I came across a maths program that also uses the computer. It was designed for independent learners as it has the most teaching/explanation on the market. It presents the content in the context of real-life problems and also targets long-term retention. There are different modules on the CD. In each lesson, there are explanations, problem-solving, word problems and questions that also revise content from earlier lessons. It is visual, audio and gives instant feedback on whether you are on the right track or not. I noticed a big difference in Zoe’s **attitude** to maths because of the new program. She’s gone from hating maths and doing everything she can to get out of it to enjoying it.”*

So, my initial thoughts were that Emily had **expectations** of the resources she used, just like any other teacher would. Here she seemed to value student engagement, academic results, long-term learning and **student attitude** to learning. Furthermore, I was struck by how if something was not working the way it should, it was not solely placed on the child having an issue with learning. Rather, it seemed to be that the resource was the crux of the issue, which would result in a new search for another, more **suitable resource** that would achieve these **expectations**. Plus, I can’t help but notice that this resource can support

students in self-monitoring their work, which could lead to opportunities to practice **self-determination** and **SEL**, including self-regulation, self-awareness and self-efficacy (Wehmeyer, Agran & Hughes, 2000; Willingham, 2011; Zimmerman, 1990; Zins, Weissberg, Wang & Walberg, 2004). This idea of such a tailored, **student-driven approach** really appeals to my inner homeschooler, as well as mainstream primary teacher. I believe that it is because of my own homeschooling experience being so similar to the Parker's that I grew up with a love of learning and decided to become a teacher. However, while I'm excited about uncovering some of the complexities and relationships in the homeschooling process of the Parker family, I need to delve deeper into the EdTech side of things.

As Zoe and Mia's morning break nears the end, I ask Emily about her thoughts on EdTech and learning. "I feel that because technology is such a huge part of life and every job that they will be likely to do in the future will need it, they need to have a good grasp of it as well as feel comfortable using it. Also, by using technology I feel like I'm giving the kids a greater variety in learning style opportunities." Emily pauses and adds, "I also like the fact that it means that the kids are learning to present things in a professional kind of manner. So, with their presentations, I can expect more of them because it's easier to make them look professional and they're learning to do that."

As Emily grabs the HDMI cable to connect the PC to the TV, I start processing what she has shared. Once again, we have this emerging theme of **expectations**, but I think it's growing into something more. There is a logic behind the **reasoning** which supports the decisions made about **resourcing**. Reflecting on everything up to this point, the **expectations** appear to link, or possibly even construct, an underlying **teaching philosophy**. This philosophy, which in this case appears to include personalising learning to meet a student's **strengths** and **needs**, is then cross-referenced with a resource option or pedagogical approach, a sort of **pedagogical reasoning** strategy that seems similar to what mainstream teachers do (Starkey, 2010). There seems to be so much thinking and process that goes behind the scenes that I wonder if Emily is fully aware of the extent of what she is actually engaging in.

*Brought back to the present by the sound of running feet, Mia and Zoe dash back into the lounge from playing outside, wide smiles and flushed cheeks. With their paper-based book work finished before their break, it's now time for them to do their schoolwork that involves EdTech. Their school day is organised in this way to limit the distraction factor that technology can pose from getting the rest of their work completed. Interestingly, the distraction factor that technology for school can have is something that not only Emily brought up, but also Mia, Zoe, Daniel and Timothy. All children mentioned it as their negative for using technology for school, with Mia in particular saying how easily she can become distracted by it. Perhaps this reveals some self-reflection and **self-awareness** of their learning? I ask Emily to expand some more about how she feels about the advantages and disadvantages for using EdTech.*

*"I have my feet in two camps," Emily answers. "So, part of me still wants them to be learning to write neatly and to be able to get their thoughts down on paper. I think there is still a place for pencil and paper. However, I think the advantages probably outweigh the disadvantages [such as the distraction factor of EdTech] because of its flexibility and it's availability of different styles of learning. So, I can only envisage that I will use it more as time goes on."*

*This progression in using more EdTech for learning as time goes on is one that has already been brought to my attention. Thinking back to when I talked to Daniel and Timothy, they had mentioned how much things had changed since when they were being homeschooled in their primary years.*

*"They're using it a lot more than I was at their age," says Timothy. "Because, well, it wasn't as readily available and there weren't the programs there are now to help with their schoolwork".*

*Daniel reflects on his primary years compared to his younger sisters'.*

*"Everything they do is on computers," he chuckles. "I didn't do anything on computers or technology". Daniel's main memory of using technology for learning in his primary years was watching Jolly Phonics, which he loved, on video [VHS] as a reward for finishing his schoolwork. It appears that time and*

*the progression in technology has led to changes in the resourcing and the pedagogy the Parker family is using, just as Hanna (2011) also describes. This notion, as well as that of having the flexibility to alter the curriculum to differentiate and personalise it to the student, makes me think of calling it a **dynamic curriculum**. That is, there is flexibility in the curriculum to change and alter it to the resources available at the time, as well as to the student.*

*“What type of EdTech resources are you currently using?” I ask, thinking back to PC, iPad and TV that I noticed when I first entered the lounge.*

*Emily glances up at me as she continues to get coloured pencils, markers, paper and other craft supplies laid out on the floor. “We predominantly use the PC and iPad with a variety of different programs and apps. I currently tend to select resources that are self-explanatory. So, I’ll be involved in the introductory questions till they get the hang of it, then less intervention is required. We use PowerPoint for presentations with SOSE and Language Arts, and Publisher for making posters or something else. Maths, spelling and music are the subjects we particularly use it [EdTech] for in particular. However, this term we are doing art with online lessons. Because I’m not artistic I decided to look for somebody who was!” laughs Emily. “The EdTech resources we use are aimed at helping the kids learn, it’s not just an add-on.”*

*I quickly jot down some points that stand out from what Emily shared. Firstly, Emily’s tendency to choose self-explanatory EdTech resources could actually be helping Zoe and Mia develop self-regulation and self-efficacy, which are components of **self-determination**. Emily’s choice and the **scaffolding** that she initially offers suggests that her purpose is one where the children end up taking ownership of their study. They begin to manage themselves, which requires an awareness of themselves. It’s like she’s **empowering** Zoe and Mia to become learners and not just to learn (Hattie, 2009). Whether she is explicitly aware of it or not, she is incorporating **social-emotional learning** strategies into her teaching and resource selection (Zins et al., 2004). Secondly, the whole find-your-own-expert is something that also clearly stands out. If you have access to great resources, you actually don’t need to be the expert in everything. It’s like you’re*

**out-sourcing instruction**, but you're also allowing children to learn from professionals who know their field inside and out. Could this also lead to a more meaningful and **authentic learning** experience?

With the online art lesson video now appearing on the TV and Zoe and Mia sitting beside each other on the floor ready and waiting with their art supplies, it's time for me to pause those musings and see the practical side of integrating EdTech.

**School's in.** "What are we doing today, Mum?" Zoe asks.

Emily points to the TV. "Today, we're going to be doing an online art lesson".

"We haven't done this before, have we Mum?" questions Mia, interrupting Emily's explanation.

"No, we're trying something new. An artist is going to be stepping you through how to draw an angel fish in an ocean scene. Just use the buttons on the PC to control the video. Call out if you have any questions as I'll be in the other room with Hayley (1 year old daughter). You have all the art materials you need" finishes Emily and she leaves the lounge room.

Personally, I'm actually pretty excited and curious about seeing this art lesson. Even more so, I'm interested in seeing how the girls go with being in control of their learning with Emily out of the room. I take a seat on one of the recliners behind them, effectively almost being just a shadow. This will be interesting! Can't say that I've seen too many 9 and 11 year olds actually doing their work when the teacher leaves them in the room.

The video starts with a female artist introducing herself. The artist then begins showing examples of artwork as she explains that these are for inspiration. She highlights the different colours selected and simply encourages the viewers that there are so many possibilities when it comes to creating art. I glance away from the video and notice Zoe and Mia leaning forward as they listen and focus on the lady.

*“Make sure you find a quiet place to work”, guides the artist. She explains why this is necessary and sets expectations for the students that also promote self-regulation. “If you are feeling hungry or thirsty or can’t focus, pause this video and take a short break, then return and take a seat. That way you’ll be able to create the best piece of art you can”. Mia and Zoe glance around themselves and at each other. “I’m good,” says Zoe. “So am I,” answers Mia.*

*The artist continues by outlining the **expectations** of the lesson, as well as the supplies they will need and what they are used for. She guides them through setting up and then breaks down the concepts needed for the lesson. The lesson is filled with meta-language, and I quickly felt myself swept up into wanting to find out more. Somebody give me a piece of paper to draw! Concepts are connected to real-life as well as the introduction of the lesson. Then the practical begins. First, they imagine their picture on the page. “Now we’re going to plan our picture first using our finger. We’re going to trace the outline of what we are going to draw with our finger before we use a marker. This helps us to visualise what we are creating.” The artist gives directions by breaking the piece of paper into sections to help the placement of key objects. Then they repeat the same process but with markers, drawing their picture.*

*Mia and Zoe are a picture of focus and fun. They alternate between glancing up at the video to looking at their piece of paper. One minute they have a look of almost determination on their face – pursed lips while intently staring at what they are doing. Next minute, they still continue to listen and follow directions, but they giggle and make funny comments towards each other, heads close together as if they were whispering to each other in class. But the giggling or comments don’t distract them from their goal. In fact, they seem to help. They also share little comments about the instructions or their own work, which seems to help the other focus on that part or to see if they are on the right track. They are self-evaluating their work as they progress as well, comparing their work to the artist’s and her directions. It’s like using peer support in the mainstream classroom, which creates a student-student **learning partnership**.*

*One purpose that the video encourages is that students are to enjoy the creating process and to celebrate their achievement. I am honestly surprised by the depth and holistic nature that this art lesson actually provides. It's not just an art lesson or teaching the child to draw. It's almost textbook perfect if one was to mark it against the New South Wales [NSW] Quality Teaching Standards (Professional Support and Curriculum Directorate, 2003).*

*The video continues teaching the children different colouring techniques. The artist clearly explains why they use the different techniques, often including a demonstration, and asking questions. I was quite amused when both Zoe and Mia would sometimes answer the questions aloud, despite the artist not having a clue if they answered or not. They just seem to enjoy it. Both girls change positions and are now lying on their stomachs on the floor. They learn about how different colour combinations create different colours as well as how to create different textures. Zoe pauses the video, as the artist was colouring too fast for her and Mia to stay up with her.*

*"I want to try experimenting with different colours" comments Mia.*

*Zoe pauses and looks at her drawing, "I think I'm going to try using a combination of pencils and markers to colour in".*

*Each girl is being careful with the details. However, there is only so much one can do when it's your first ever time drawing the angel fish scene!*

*Mia laughs and looks at Zoe, "My fish has the weirdest shaped tail ever!"*

*Zoe glances over and bursts out laughing, "That's so funny! Look at my one's fin. It's a bit odd too!" Both girls are laughing at their comparisons.*

*Emily calls out from the other room, "Have you finished the art lesson yet?"*

*Both girls respond, "No". "We just have to finish the colouring in," adds Zoe. "You have 10 minutes left to finish, ok?"*

*Mia starts the video again as the girls continue colouring in. It was taking them a little while as they were being rather careful and conscientious with their work. At the end of the lesson, the artist summarises the key points and shares that if the viewers want to, they can post pictures of their drawings up on the forum to share them with others. Who thought that a technology-based art resource could be **social** and generate such enthusiasm and enjoyment?*

*Emily then re-enters the lounge and starts the Mia and Zoe on their next tasks. “Zoe, it’s time for you to do Maths. Mia, you’re going to do music using the iPad.”*

*Zoe settles down on the floor with her back against the window, arranges her maths books around her and runs the CD. She has a maths workbook and the answer booklet with her. Emily does not wander over to see what she is doing, which could suggest that she is confident in Zoe’s ability to manage both the resource and to do her work.*

*At the start of the year, Emily and Zoe sit down together and outline what is expected each week so that the work is done by the end of the year. From this plan, Zoe knows exactly what is expected of her and self-regulates and directs her efforts. If she is behind, she does extra to catch up and so on. Emily reflects that even with technology, Zoe does a great job in regulating herself and **learning independently**, but while Mia self-regulates **independently** with paper-based work, she struggles where technology is concerned because of the distraction factor.*

*By all appearances, it seems that Emily’s confidence in Zoe is well-placed. With no further direction, Zoe opens the maths program on the laptop, selects the next module she’s to do, and begins listening to and reading the script for the explanation of what she is learning. As the explanation on rounding and estimating with addition and subtraction continues, there are questions asked that the student selects a response or writes their answer. The CD then checks her answer, offering instant feedback with full workings out, and therefore checking her understanding and comprehension of the explanation during the actual*

explanation stage. Furthermore, the questions asked help to model the thinking process to achieve the solution and explain why it is helpful to know.

*In answering one question, Zoe gave an incorrect answer. “I’m just going to replay what he just said so I can hear it again,” she remarks. I thought that my presence may have been distracting her or making her second guess herself, so I said that I was just going to see what Mia was up to. Still, it was good to see that Zoe’s math resource lined up with how she best learns things as well as seeing her manage and **self-directing** when something wasn’t working for her.*

*Meanwhile, while I was observing Zoe, Emily had been pointing out the apps on the iPad for Mia to use for her music theory. Emily had left the room again, but Mia was sitting quietly on the couch with the iPad, touching the screen. I sat beside her and could see that she was playing a game. It was helping her recognise notes in the treble clef. At the end of each round, Mia could review her mistakes. There was also a race that encouraged faster recognition of notes as well as introduced an element of pressure. After playing this app for around 10 minutes, she changes to the next one. This one looks at rhythm and being able to read music. There is music in the background so she can hear the tune, while she has to tap the rhythm correctly. The app tells you what you did well and what you missed. Mia uses both apps with confidence, suggesting that she is familiar with what she is expected to do. She also has the freedom to choose what order she does them in. Her facial expression is rather focused as she stares rather intently at the iPad, tapping rather hard on the screen with some notes when she realises she has made a mistake. Mia then does another note recognition game where she is given a specific note. When she sees that note rolling across the screen, she needs to click on it. It becomes more difficult as she has to recognise it with and without the letter of the note, and as the speed can change as well as the combination of note groups. When a round has finished, Mia quickly presses that start button to play another round, often not bothering about reviewing what she did right or wrong. I wonder if this is because of how young she is that she needs more scaffolding to understand how the evaluation offered by the review can help her do a better job next time?*

*“I’ve finished doing the apps, Mum,” Mia says, “What do I do now?”*

*“Have you made music using Garage Band as well?” Emily asks.*

*“Oh... No, I haven’t. Do I need to do that now?” Mia questions, and Emily answers in the positive.*

*Returning to sit beside Zoe, who seems more relaxed now, I see that she is still working on maths. She is looking at a word problem and the picture accompanying it on the screen. She writes her workings out in her workbook. Emily had previously shared with me that she believes it’s important to include a paper-based aspect with maths.*

*“[It allows them to] get some maths written down as well as some online. I don’t know the scientific data behind this, but my theory is that the brain probably remembers it when you write down maths as opposed to simply responding to it on a computer screen.”*

*While I had been with Mia, Zoe had made great progress with her work. I have to say, one of the things that I’m quite impressed with is Zoe’s focus when it comes to schoolwork. Even when she occasionally groans as she tries to solve another problem which involves subtraction, which is her least favourite, or comments on how tricky some of the questions that review previously learnt content in earlier modules are, she still perseveres and keeps going till she finishes the entire lesson. Furthermore, she double checks answers with the answer book. Zoe seems to appear content with the process, yet if she gets an answer wrong, she becomes determined to solve why she got it wrong. She then returns back to the audio and text explanation to problem-solve until she gets the right answer. This is all done without any involvement by a parent to keep her on task. Once again, she shows aspects of **self-determination** and learning dispositions, such as persistence, that are associated with **empowered learning** (Hattie, 2009; Wehmeyer, Agran & Hughes, 2000; Willingham, 2011; Zimmerman, 1990).*

*Zoe talks me through some of the parts of the maths program. She shares that every time she gets an answer correct, she gets another 'ten pin' in the corner box. Once she has three 'ten pins' it gets rolled out using animation.*

*"I really like that part! I selected that option when I was personalising it [her user for the maths program]," Zoe tells me.*

*I notice that the program uses true and false questions when they are asking about a rule. Other questions are multiple choice. Zoe explains that after a certain amount of time has passed, there are also hints that are available. It's almost like they are gamifying the maths process, which seems to help keep students focused and makes the task appear achievable even if it's a challenge.*

*Emily returns to the room to check on Mia's progress. "Alright, you've finished music," she says, "now I want to show you some things to help you with your Egypt project. You've already found some ideas for how to make and design it from Pinterest. Now it's time to find some information for it, so I have bookmarked some websites that you can use. The first one is a hieroglyphics writer. Play around and experiment with it. You can use it to write something, then print it off as part of your project. The second site is a National Geographic one. Explore the website and see what information you can find about Egypt that you could include as well." Mia asks Emily a few more questions, clarifying what Emily wants her to do. Emily then lets Mia continue **independently** with exploring both websites. I walk over and sit next to her on the couch. I have a soft spot for Egyptian history. When I was around Mia and Zoe's age, I read every single book on ancient Egypt that I could find at the library, so I'm quite curious about what Mia is going to do.*

*The first thing Mia does is enters her name into the hieroglyphics writer. "Yay! That looks so cool!" she exclaims. "Let's try Zoe's name." Mia continues entering the names of everyone in her family and prints it out. "Oh look, the first two hieroglyphs for my name are a lion and a vulture!" says Zoe when Mia shows her. Mia giggles and makes a joke about it meaning that Zoe must 'roar' a lot as she returns to the couch and sits down. She opens the National Geographic page that was bookmarked. On it are many different video documentaries, varying in*

length, which Mia can choose to watch. She selects one titled 'Saving Egypt's Oldest Pyramid'. Mia looks at me and says, "You can watch it with me, Sam". So, we sat together, completely engrossed in the tale of the process of saving the oldest pyramid in Egypt. We learnt about how pyramids were made, why they were made, what causes them to decay, the different chambers of each and many other facts during the video. There was a sense of adventure and danger as the team tried to find solutions to save the pyramid. Debris from the ceiling in one of the large rooms was even falling on the team as they were trying to preserve it and the access tunnels, some of which hadn't been explored yet because of the risk of the ceiling caving in and the pyramid collapsing. Mia and I were both enjoying it so much that Zoe came and joined us when she finished her maths. Then Hayley toddled in, and seeing us all together, made her way to us and joined us on the couch as we all watched the video. It was beginning to get dark in the room as the late afternoon sun disappeared, so when Emily turned on the lights and saw us all sitting close together, absorbed in the race to save the pyramids, she let out a little laugh and told the girls they needed to leave shortly. "But Mum," Mia piped up with a strong tinge of whining in her response, "We haven't finished watching the video yet. We don't know if they manage to save the pyramid in time, or what else they discover!"

Emily smiles but responds firmly, "The video will still be there when you get back. We need to leave now otherwise we'll be late".

**The after effects.** A week later, I visit with Emily and sit down for a chat before another interview. As we talk, she suddenly remembers something. "Oh, Mia and Zoe made something for you!" Emily finds a folded piece of paper and gives it to me. I grin as I open it and discover it is a drawing of an angel fish, much improved from their first attempts that I had seen. I remark, "I can tell they've been practicing!"

Emily laughs, "The amount of creative drawing that has gone on this week since they did that art lesson has been quite huge. In their spare time that have been practicing and drawing presents for people."

*This captures my attention. Mia and Zoe have been applying what they learnt in 'school' to something they did 'outside' of school? The online video actually had long-term effects on **inspiring creativity**? I immediately think of connected learning, where connections are made between real-life and school contexts (Garcia, 2013), and how these can also contribute to meaning and authentic learning experiences. So, I ask, "Did they initiate it?"*

*"Absolutely!" replies Emily. During our chat, I also found out that Zoe and Mia talk to each other as they draw, using the meta-language that they heard as they explain and discuss what they are doing and why. Once again, it seems that EdTech has a **social capability** that can promote or facilitate interactions between students.*

## **Conclusion**

*As I walk back to my car after our final interview, I cannot help but be amazed at what I have found. The experiences that I have seen and heard about from the Parker family have not only given examples of the integration process of EdTech, but also offer an understanding of how home education can also operate as a whole. This small glimpse into the lives of one family who includes EdTech as part of home educating resonates with literature on a variety of points, while also extending understanding into the field of Australia home education and home educating with EdTech. In the next chapter, the findings of this case study, as represented through this tale, are unpacked and interpreted alongside literature.*

## CHAPTER 5: THE INSIDE-OUTSIDE INTERPRETATION

*“It is not about the technology; it’s about sharing knowledge and information, communicating efficiently, building learning communities and creating a culture of professionalism in schools. These are the key responsibilities of all educational leaders”.*

Marion Ginapolis (2015, para. 8)

### Introduction

In the previous chapter, you took a ringside seat as I described my experiences and interactions with the respondents in the field in order to offer a representation of the case (Van Maanen, 2011; Yin, 2009). Through the use of an impressionist tale (Van Maanen, 2011), this method presented the research context in its holistic nature, as well as revealing the multiple voices that appear present in home educating families (Flick, 2009; Yin, 2009). The purpose for this type of description was to enable you to understand the everyday life, experiences and processes of the Parker’s home educating their children at a familial level (Hammersly & Atkinson, 2007; Van Manen, 2011). Furthermore, highlighted through the tale were the themes that emerged from coding the data, which are shared explicitly in “Chapter 3: The Inner Workings” (Charmaz, 2014). Therefore, “Chapter 4: The Inside Experience” not only describes what took place, but reveals the source of the themes, confirming the quality of the findings (Guba & Lincoln, 2013) and revealing how the crystallization process moved knowledge from being tacit and experiential to propositional (Ellingson, 2009; Niedderer, 2007). This, in turn, provides a solid foundation for the next stage of the project.

With a description of the events and interactions that took place in the field, we move on to interpreting these events. The interpretation focuses on answering the following question:

**“How does one family integrate educational technology in the home education of their primary-aged children?”**

The interpretation of the findings is based on the themes that arose from analysing the data using constant-comparison (Charmaz, 2006, 2014) while working towards grounded theory (Charmaz, 2006, 2014; Walker & Myrick, 2006). It was from these themes that the deeper essences (Van Manen, 1990), as explained in “Chapter 3: The Inner Workings”, revealed what was taking place in the research context, which led to a model (Figure 5.1) being

developed to capture the process and relationships between these themes (Charmaz, 2006; Walker & Myrick, 2006). In addition, as an inside-outside researcher, the interpretation required me to transition frequently between the inside perspective of home education and the research context, to the outside perspective of knowledge from a research base. Bak (2015) mentions that this approach may involve such “blurred boundaries” (p. 95), resulting in the inside-outside approach not being represented by a fixed straight line that a researcher straddles evenly. Rather, the line appears more fluid as the researcher switches completely between the two separate perspectives seamlessly. As such, this chapter blends data and literature together to explain each theme, or essence, featured in the model, discussing how it works both as an individual component of the model and as part of the larger model design (Figure 5.1). Furthermore, while I personally transition between the inside-outside perspectives to write this chapter, the chapter itself is written as if stepping outside the Parker’s house and peering through the window. That is, the tone of this chapter is that of an outsider looking from a distance to understand what is happening, as opposed to the tone of being immersed and familiar with the family in “Chapter 4: The Inside Experience”. Therefore, accompanying the text are boxes that share excerpts from observations and interviews. These excerpts act as windows into the case study scene, providing another layer to the interpretation that reveals its origins.

### **The Fountain Model**

The Fountain Model (Figure 5.1) itself takes the form of a three-tiered fountain. As outlined in “Chapter 3: The Inner Workings”, the tiered fountain emerged out of the need to portray a process that is both linear and iterative in nature. The direction of this integration process is represented by the water, which spills from the top tier and cascades from tier to tier. Once it reaches the bottom tier, the water feeds back through the centre to the top in order to repeat the cycle. Using this design, the parents’ and children’s voices are revealed, along with each essence situated at its relevant stage of the fountain’s cycle, in order to demonstrate its relationship with other essences and within the cycle itself. These essences, and the relationships between them, are further emphasised as they are highlighted throughout this chapter.

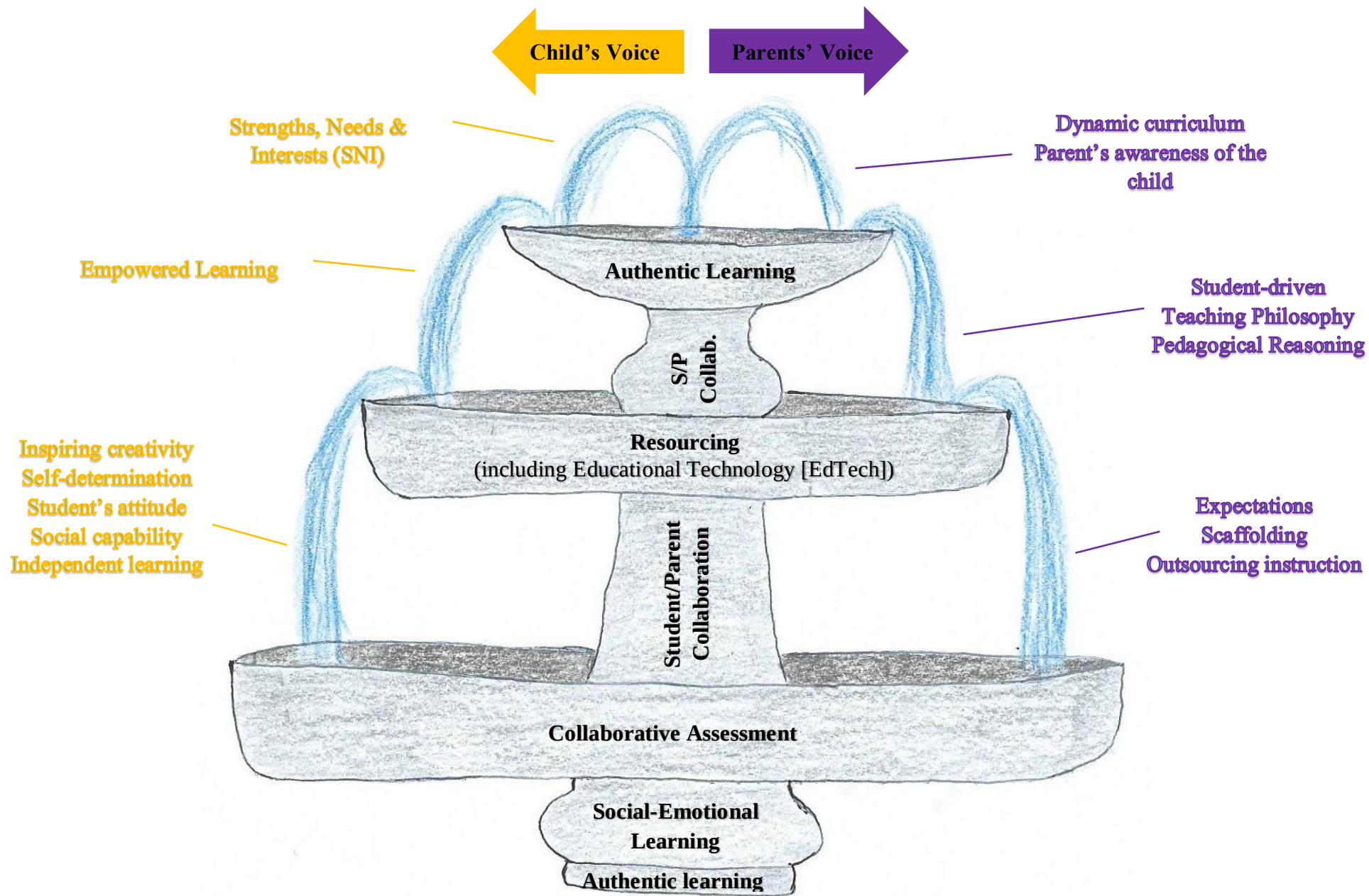


Figure 5.1

## The Voices

The Fountain Model shows two separate voices, the parents' and the child's, which are integral to the home education process (Barratt-Peacock, 1997, 2014; Harding, 2011; Jackson, 2014; Sheehan, 2002). According to research into Australian home education, the child is considered to be at the centre of the learning program, with the parents basing learning on the needs and strengths of the child (Barratt-Peacock, 2014; Harding, 2011; Jackson, 2014). In international research, Anthony & Burroughs (2012) describe parents using an eclectic approach to home educate as "selecting from a menu of educational choices" (p. 1) that is "based... on their child's needs and desires" (p. 7). Other international studies describe home education as a collaborative process between the parent and the child (Sheehan, 2002) or considers parents as "the gatekeepers to every identified area of their child's success... often the most qualified individuals when it comes to understanding their children's unique zones of proximal development (Vygotsky, 1976)" (Johnson, 2014, pp. 160-161). The findings of this study also echoed the involvement of both the parents' and the children's voices in the decision-making process, though this was initially tacitly understood by the respondents at the time (Niedderer, 2007; Polanyi, 1966). As the fountain model reveals, there are some shared steps, such as the **Authentic Learning Partnership [ALP]**, **Resourcing**, **Collaborative Assessment**, and **Student/Parent Collaboration**. Other steps are individual and specific to only one of the voices. Therefore, in order to present a holistic interpretation of the findings (Flick, 1998), it was important to distinguish between the two voices that influenced the decision-making process of integrating not only EdTech, but also **resourcing** in general.

## The Stand

While the three tiers of the Fountain Model provide the details of the integrating process, there are some foundational features of the fountain that are also essential in integrating EdTech into primary home education. The fountain's base includes **authentic learning** and **social emotional learning [SEL]**, which supports and influences the entire integration cycle. Then, there is the centre column, **student-parent collaboration**, which acts as a communication channel linking between **collaborative assessment** and the **ALP**. This channel enables the transition from the

final tier back to the start of this iterative cycle. The role of the base and centre column is explained in the following sections.

**The base.** Regardless of whether EdTech is being used, **authentic learning** and **SEL** are two essential aspects that can enhance a student's learning experiences, development and academic success (Lombardi, 2007; Zins, et al., 2004). However, EdTech can have a role in creating powerful learning environments that extend the opportunities for authentic learning (Herrington, Reeves & Oliver, 2014; Lombardi, 2007; Smeets, 2005). From the case study, the parent has the potential to adapt the **dynamic curriculum** to the individual needs and capabilities of the child, tries to connect learning between different contexts, especially linking the 'classroom' to the outside world, and finds ways of promoting student engagement (Anthony & Burroughs, 2012; Barratt-Peacock, 2014; Smeets, 2005). This helps to situate "learning tasks in the context of future use... [through a means of] enabling students to develop robust knowledge that transfers to real-world practice" (Herrington, Reeves & Oliver, 2014, p. 401). In order to achieve this, the **parents' awareness of the child** and the child's **strengths, needs and interests [SNI]** seem to work together to create rich learning experiences that promote **authentic learning** (Smeets, 2005). The child appears to respond to this aspect of the **teaching philosophy** with a sense of enjoyment that can also trigger **self-determined** behaviours, decision-making skills and self-management. Building on these triggers, **SEL**, which seems to be included tacitly by parents, may enhance these skills and dispositions further. This can be seen in the development of competencies, such as "self-awareness, social awareness, self-management, relationship skills [and] responsible decision-making" (Zins et al., 2004, p. 9). The third tier of the child's voice explains more of the individual aspects of **SEL** that became evident during the study. Ultimately, though, it appears that the "close parent to child relationship" (Harding, 2011, p. 236) needed to understand the child enough to promote **authentic learning** and **SEL** "can develop a new type of learner, contextualised in the real world" (Harding, 2011, p. 236).

**The centre column.** Standing on the base and linking the tiers of the fountain together is **student-parent collaboration**. This collaboration seems to involve the **parents' awareness of the child**, the student's 'voice', and **collaborative assessment**. Anthony and Burroughs (2012), Cardinale (2013) and Sheehan (2002)

also suggest that home education could be a collaborative family effort, as well as a process that is “driven by the learner” (Barratt-Peacock, 2014, p. 10) that meets the individual **SNI** of the child (Anthony & Burroughs, 2012; Cardinale, 2013; Sheehan, 2002). The interplay between the **parents’ awareness of the child**, the student’s voice, and **collaborative assessment** seems to lead to collaboration concerning the process of integrating EdTech as effectively as possible. This communication channel is core to the iterative process of integrating resources, including EdTech, into the **dynamic curriculum**. The result of this communication is an **Authentic Learning Partnership [ALP]**, which is the centrepiece of the entire process, and is explained in the first tier.

### **The First Tier**

The first tier features not only what appears to be the key essence (Van Manen, 1990) in integrating EdTech into home education, but also other essences that interact with it. As part of creating an **ALP**, the students voice their **SNI**, whereupon the **parents’ awareness of the child** and adoption of a **dynamic curriculum**, allows this **ALP** to work. Each one of these essences is discussed further in the following sections.

#### ***Authentic learning partnership [ALP].***

While Barratt-Peacock (2014) places the child at the centre of the home education process in Australia, this study suggests a relationship that is more complex and social in nature.

From the findings, it appears that the integration of EdTech is essentially bound and enhanced by the **ALP** between parent-student and student-student (see Appendix D).

Pertaining to the parent-student relationship, Harding (2011) observed a similar practice in

that it is this close parent-child relationship that provides the basis for the teaching process in home education. This is where parent’s understanding the **SNI** of the student is important, as this contributes to creating a “we” approach to teaching and learning, as revealed in the following example:

*“That’s been interesting with maths being so technology based. Zoe has been very good at self-regulating. We had a look at the beginning of the year, divided the course up into four reasonably equal parts to cover the four terms and Zoe is very clear about where she’s up to and what she needs to do, and if she’s behind she will self-regulate herself and will do a couple of lessons to catch up.”*

*Parent Interview 2  
August 3, 2015*

*“[Discussing preferred learning dispositions] ... in history, I will look for videos that engage her [Mia’s] interest, whereas with Zoe, she is more likely to be happy to read an article” (Parent interview 2, p. 2)*

**“Both Zoe and Mia do an online art lesson together. They sit in a comfortable position as they listen and watch the art teacher [online video] explain and illustrate the steps. They giggle and talk to each other as they complete each of the steps. They didn’t need any re-focusing. They share little comments and observations with each other. Verbally, they compare their work with the teacher’s on the TV and between themselves.”**

***Observation  
July 22, 2015***

The consequences of this is that it creates a learning environment that is connected (Garcia, 2014). Connected learning relies on being “interest-driven and collaborative” (Garcia, 2014, p. 6) and that this connectedness applies “to teachers as well as their students” (Garcia, 2014, p. 6). By the parent listening to the SNI of the child, they are opening themselves to the child’s input, valuing it and communicating with their child. Meanwhile, this learning partnership process is also promoting authenticity, as the home educator appears to base learning on students’ personal lives and using this knowledge to tailor learning programs to their individual

needs, resulting in “powerful learning environments” (Smeets, 2005, p. 343; Barratt-Peacock, 2014; Harding, 2011). It is this sense of connectedness that appears to construct this learning partnership between the parent and the student.

Concerning the student-student **ALP**, Alfonseca, Carro, Martin, Ortigosa and Paredes (2006, p. 378) states that “not only can the students learn from their individual interactions with educational resources, but also they can acquire knowledge during the accomplishment of activities in collaboration with others”. Furthermore, this “also helps... develop social, cognitive and reasoning skills such as thinking, making ideas explicit, communicating ideas, being responsible and cooperating with others” (Alfonseca et al., 2006, p. 378). From the case study, this social construction of learning was observed through the primary students communicating ideas with each other and being responsible for self-regulating with their learning. In addition, their interactions with one another also appeared to encourage self-reflection of their work

as they made comparisons between their work and the examples given, as well as with each other's work.

In itself, this partnership offers freedom and room to grow and learn concerning both the educator and the student (Garcia, 2014; Harding, 2011). This partnership feeds, and is fed by, a student's SNI and the **parents' awareness of the child**. This, along with the parent using a **dynamic curriculum** approach that is flexible, which allows the home education practice to be jointly constructed in a way that promotes meaningful and authentic learning, tailored to the individual needs of the child (Harding, 2011; Jackson, 2014; Sheehan, 2002).

**"[Mia's favourite time when she used technology for school and enjoyed it] Watching the Oldest Pyramid series... I had to write things down [for her history project]."**

**\*Mia had previously shared that her favourite ways of learning were watching and writing – both of which featured in her response.**

***Primary Students Interview 2  
August 3, 2015***

***Strengths, needs & interests [SNI].*** As highlighted previously and in Figure 5.1, the student's voice seems initially represented by their SNI in the process of integrating EdTech in home education. This became evident in the case as it was noted that EdTech resources are generally integrated in a way that aligns with students' preferred learning dispositions. This suggests that it is through parents

**"Q: How does technology help you or cause problems for you in your schooling?"**

**Mia: 'cause you get sometimes distracted.**

**Zoe: You want to [do] something else other than schoolwork.**

**Mia: And then you do it."**

***Primary Students Interview 1  
July 14, 2015***

understanding the individual child and linking this knowledge into practice that allows the child to have input into what takes place.

While the child's voice and how this occurs does not appear to be described explicitly in home education literature, the process in which it is used has been highlighted. In particular, Barratt-Peacock (2014) states that "the only limit on what home educated children learn is their own stamina and interest!" (p. 6) and that "home education

does not focus merely on the learning 'NEEDS' of the child... but the child's individual interest and imagination... and so guided as to incorporate any 'needs' and

go well beyond!” (p. 9). This focus on the individual learning **SNI** of the child and using it to design learning activities (Anthony & Burroughs, 2012; Barratt-Peacock, 2014; Harding, 2011; Jackson, 2014) results in instruction that is differentiated (Heacox, 2012). This form of instruction is highly beneficial for students, as it promotes student engagement and challenges students in a learner-responsive way aimed at their readiness (Heacox, 2012). Differentiated instruction requires a flexibility concerning not only content, resourcing and instructional formats, but also in adopting a variety of methods to display learning (Heacox, 2012). Students appear to appreciate this link, which is often reflected in their enjoyment of the task. However, one of the areas of need concerning the integration of EdTech is that it can be a source of distraction as well, which was mentioned by all respondents. This is where the **parents’ awareness of the child** and the use of a **dynamic curriculum** is likely to help manage and respond to this area of need as well, which further feeds the **ALP**.

*Parents’ awareness of child.* In order for the student’s **SNI** to be recognised and linked with practice, the parent needs to have a deep awareness and understanding of the individual child. This parental awareness and learning about their child’s needs and interests in order to support the child’s learning (Anthony & Burroughs, 2012; Barratt-Peacock, 2014; Cardinale, 2013; Harding, 2011; Johnson, 2014; Sheehan, 2002) is frequently noted in home education research. This results in parents tailoring instruction to the individual child (Anthony & Burroughs, 2012), as well as a tendency for developing a curriculum that is student-orientated and student-driven (Barratt-Peacock, 2014; Jackson, 2014). The parent’s awareness of the child informs and drives the home education practice, including the integration of EdTech. This also seems to have an on-flow affect, influencing themes further down the fountain such as **scaffolding, expectations** and **authentic learning**. However, the **parents’ awareness of the child** and the student’s **SNI** would likely not have as great an effect on the integration of EdTech if it was not for adopting a curriculum that is flexible in approach.

**“Q: How do you know if something is ‘not working’?”**

**Emily: If the child’s not engaged, or if I use some form of assessment and the results are not there.”**

***Parent Interview 2  
August 3, 2015***

**“Q: What are some recent changes you have made to your schooling involving technology?”**

**Emily: First one is the maths curriculum because they can watch their maths lessons online and then do their maths class. That was inspired by hitting a bit of a learning block with Zoe and with Timothy and looking for an alternative way to approach it and it has made quite a difference.”**

***Parent Interview 2  
August 3, 2015***

**Dynamic curriculum.** As the name would suggest, the **dynamic curriculum** as observed in this case study is one that allows the integration of EdTech and other resources to be in a constant state of change that is determined by a variety of factors. That is, there is an inherent flexibility that allows changes to be made based on the child’s **SNI** and learning dispositions initially. As Anthony and Burroughs (2012) describe, home educators who adopt the eclectic home education approach select “from a menu of

educational choices to meet students’ individual instruction needs” (p. 1). A **dynamic curriculum** is one that can be tailored continually to the changing **SNI** of the child, therefore reflecting a personalised pedagogy (Caldwell, 2006; Harding, 2011; Loader, 2007) that differentiates for students, allowing them to learn at their own pace using methods that work for them (Heacox, 2012; Jackson, 2014; Keenan, 2013). Furthermore, the **dynamic curriculum** also appears to be linked and influenced by **collaborative assessment** on the effectiveness of the EdTech by student and parent, **student-parent collaboration**, and **resourcing**, which will be discussed in later sections.

## **Second Tier**

Springing from **ALP** and into the next shared catchment, ‘**Resourcing**’, are four themes. On the student’s voice side, there is a transition into **empowered learning** that is brought about from the themes of the first tier interacting with one another. Whereas, the parental voice is now applying **pedagogical reasoning**, stemming from a **teaching philosophy**, that is **student driven**. Each of the four themes in the second tier are explained in the following sections.

**Empowered learning.** With the integration of students’ **SNI** into the **ALP** and the decision-making process, there appears to be an on-flow effect that deepens student learning. In the case study, EdTech provided opportunities for tailoring pedagogy and resources to suit the learning dispositions, preferences and modalities

of the child in order to support optimal learning and **student attitude**. This process of using students' **SNI**, learning dispositions, preferences and modalities appears to assist "parents and educators to mould dispositions that aid rather than hinder learning (Hattie, 2009, p. 32). Hattie (2009, p. 32) further explains,

*"There are many opportunities for... developing the child's willingness to engage in learning, the degree that a child aims to enhance his or her reputation that can be gained from being engaged in learning, helping the child attribute success to factors such as effort rather than ability, and developing in the child a positive attitude to learning. These positive attitudes of openness to experience, willingness to invest in learning, and intellectual engagement can be... developed to a particularly high level in our schools – providing we can ensure that tasks are appropriately challenging to students, and that success is attributed to their investment in the tasks. This can lead to a sense of reputation enhancement – students derive a sense of self and reputation amongst peers that they are 'learners' (Carroll, Hattie, Durkin & Houghton, 2001). Therein lies success."*

It is not simply that home educators integrate students' **SNI** in the decision-making process, but that this previous step lays the foundation for deeper, **empowered learning** to develop. This **empowered learning** can result in primary-aged students showing confidence in expressing and recognising their own learning preferences and dispositions independent of any adult input, as illustrated in the case. While these learning preferences "are not infallible indicators of strengths or weaknesses in either the preferred or the less preferred categories of a dimension" (Felder & Spurlin, 2005, p. 110), it is noted that when there is a serious mismatch between learning styles and teaching styles, students are

**"Q: How do you think you learn things the best?"**

**Mia: By reading it... and writing it down.**

**Zoe: Mostly... by listening to it... over and over again... Favourite way is probably reading, listening. Least favourite is probably writing.**

**Mia: Least favourite for me is like, you have to do certain things with your writing, not just write anything you come up with."**

***Primary Students Interview 2  
August 3, 2015***

more likely to become disengaged, feel uncomfortable, and become discouraged concerning learning and themselves (Felder & Spurlin, 2005). Whereas, when students become personally engaged and empowered through the decision-making process, they seem to develop other learning skills and dispositions through managing and ‘owning’ their learning. Some of these learning dispositions include **self-determination, independent learning** and **self-directed** learning. By developing, supporting and empowering student learning through the use of positive learning dispositions, preferences and modalities, home educators are positioning their children to “stand... in good stead wherever they find themselves” (Claxton, 2009, p. 184).

***Student-driven teaching philosophy.*** A common thread since the start of this chapter is the positioning of the student as being a key driver in the selection and integration of resources, including EdTech. This is a key aspect of the **teaching**

**“I feel that because technology is such a huge part of life and every job that they will be likely to do in the future, that they need a good grasp of technology, and they need to be comfortable using it. Apart from that, also by using technology I feel like I’m giving kids a greater variety in learning style opportunities.”**

***Parent Interview 2  
August 3, 2015***

**philosophy** that home educators in Australia practice (Barratt-Peacock, 2014). Home educators have the potential to use their **awareness of the child**, and the child’s **SNI** to create a learning program that helps their child learn in the best possible way (Anthony & Burroughs, 2012; Barratt-Peacock, 2014; Cardinale, 2013; Davies & Aurini, 2003; Sheehan, 2002). The **student-driven teaching philosophy** is the combination of the

**dynamic curriculum** from the first tier and the student-driven nature of the home educating process. This **teaching philosophy** then links with **pedagogical reasoning**, which will be explained in the next section.

From the case study, it appears that the key purpose for why home educating parents adopt a student-driven model of education is because they are wanting to prepare their child for the future. All these aspects then seems to influence integration in the following ways:

- Indicators for knowing if learning resources or instruction techniques are working well are based on student responses, including engagement, **student attitude**, and academic results.
- Pedagogy and scaffolding change as students develop confidence, competence and self-regulating skills in order for them to progress towards **independent learning**.
- Resourcing utilises student's preferred learning dispositions and **SNI** in order to promote meaningful learning.

This philosophy seems to further promote the understanding that home educating parents are motivated to help their children to learn, which can be observed in the personal and individualised learning experience based on the **SNI** of the child (Anthony & Burroughs, 2012; Davies & Aurini, 2003; Sheehan, 2002).

***Pedagogical reasoning.*** Based on and intertwined with **teaching philosophy**, **pedagogical reasoning** features the home educators' reasons as to why they should integrate a specific EdTech or learning resource into the curriculum, which appears to be considered before, during and after integration. Harding (2011) reiterates this consideration given to pedagogy in that home educators deem the pedagogical aspect of teaching as a key element of their role as their

child's teacher, particularly as they seek to facilitate "the development of the whole child" (Harding, 2011, p. 235). At the forefront of this reasoning appears to be the home educator ensuring that there is a clear purpose for its integration and that it is relevant. This is similar to pedagogical models used by teachers, as they carefully select resources based on students' prior knowledge, link this with developing content knowledge, personalise learning, and use formative and summative assessments to determine and modify the teaching process where appropriate (Starkey, 2010). In particular, this case study reflected an **expectation** that resources should support the child's learning, which was noticed in the selecting of resources and the form of

**"With Mathletics, having used it for a year and watching the actual retention of maths facts as opposed to the previous year when I was using a different program, I've come to the conclusion that Mathletics is an excellent reward for maths, as some extra maths time, but not as your core program."**

***Parent Interview 1  
July 14, 2015***

EdTech, sequencing learning experiences to maximise learning and reduce the possible distraction effect posed by EdTech, and adapting the role of teacher depending on the form of EdTech integrated.

**Resourcing.** The influence of all previous essences then merge together into **resourcing**, the second tier, illustrating the interaction and collaboration between the parents' and the child's voices. As this case would suggest, and as highlighted previously, the home educator's **student-driven teaching philosophy** places importance on student's **SNI** in creating **authentic learning** programs. Therefore, this has the potential in promoting collaboration between the two voices. Concerning the options available for **resourcing** in home education, the quantity and scope of educational resources, including EdTech, has experienced many changes over the

**“Q: What do you see as being differences between how you did primary school with technology compared to how your two younger siblings are currently using it for school?”**

**Timothy: They're using it a lot more than I was at their age, because, well, it wasn't as readily available and there wasn't the programs there are now to help with their schoolwork.**

**Daniel: Everything they do is on computers and technology. I didn't do anything on computers or technology.”**

***High School Students  
Interview 2***

years. In a longitudinal study, Hanna (2011) noticed that with the introduction of technology, there was a dramatic increase in pedagogy and curricula that was used by home educators. The high school students in the case study also noted the changes in **resourcing**, specifically the frequency of using EdTech, from when they were primary-aged to what their younger siblings are now doing. This could suggest that one of the limits to resourcing in home education is the actual availability of resources, however it also reveals the dynamic nature of the home education practice. Jackson (2009) noted that “parents were always open to new ways to encourage their children's learning... These parents worked towards curriculum tailored to children's individual uniqueness and ensured meaningful real life learning contexts” (p. 96). Harding's

(2011) study also made a similar observation “these parents are willing to try new things. They are looking for new knowledge, skills and applications in their communities of learning practice” (p. 225). Home educating parents appear to not be timid about finding resources nor trapped into only one way of teaching and

resourcing. They appear willing to make changes to the curriculum, including **resourcing** decisions, in order to ensure meaningful, **authentic learning** for the student. Some examples of the EdTech integrated during the case study included music tuition apps on the iPad, online art lessons, a maths software program, and websites that supplied content information, such as the National Geographic site, and inspiration for a project design, such as Pinterest.

Due to the flexible and dynamic nature of the eclectic home education curriculum, eclectic home educators “expressed strong views about curriculum content and structure... [the curriculum needed to] cater to children’s interests and act as a guide to learning” (Jackson, 2009, p. 96). With this view and that of Anthony and Burroughs (2012), which likens home educators choosing resources as someone “selecting from a menu of educational choices” (p. 3), it appears that **resourcing** is a highly valued part of the home education process, and that the core aspects that guide it are likely to be crucial for the EdTech integrating process as well. The core aspects that this case study found that directly relate to EdTech **resourcing** involve student’s **SNI, attitude, engagement** and parental **expectations**. Based on the EdTech resources observed in the case, the home educating parent would research to find suitable resources that would meet these four central aspects. Frequently, these resources tended to be self-explanatory as the children were using familiar devices. The child also seemed to influence **resourcing** by giving feedback about whether they believe something is working for them or not, which will be explained further in the next tier under **collaborative assessment**.

### **Third Tier**

Flowing out from **resourcing**, the third tier appears to experience a significant display of the child’s voice, with the parents’ voice remaining with its steady contribution. While the first and second tier have explained the process leading up to the decision of what EdTech and resources to use, the third tier express the results of what came out of integrating the EdTech into the program. The child’s voice captures results such as **inspiring creativity, self-determination, student’s attitude, social capability, and independent learning**. Meanwhile, the parents’ voice features **expectations, scaffolding, authentic learning, and outsourcing instruction**. Both

voices then merge once again in the final catchment, which is **collaborative assessment**. Each of these essences are described further in the following sections.

**Inspiring creativity.** While this is one of the smaller essences that was noted in the study, it appeared to be a result in the integration of EdTech. In the case, it seemed that EdTech could inspire creativity to varying degrees, as well as providing a platform for both creativity and **independent learning** to emerge. Moyle (2010) also notes the relationship between creativity, self-directed learning, and the effective integration of technology into the classroom:

**“I do think it [EdTech] helps... Following their first online art lesson, the amount of creative drawing that has gone on... since that lesson has been quite huge...**

**Q: Did they [children] initiate it?**

**A: Absolutely!”**

***Parent Interview 2  
August 3, 2015***

*“A learning environment that promotes the development of creativity, innovativeness and capability for self-directed lifelong learning in students will have a strong flavour of constructivist learning, rather than one of teacher-dominated declarative learning. Students will be active agents in the construction of their own knowledge, rather than passive recipients of that knowledge from teachers... Such a learning environment is not tidy and does not follow a preset script.” (Moyle, 2010, p. iv).*

It was also noted in the case study that this creativity and independence went beyond the classroom. The students initiated their own use of the skills learnt in ‘class’ and transferred them to another context outside of ‘school’, such as applying their newly acquired drawing skills into leisure activities and creating gifts for people. In addition, that students also appear to desire this flexibility to be creative and independent in their learning. This could suggest that students want to be active agents in their learning and that creativity may also feed their development into becoming active learners (Moyle, 2010).

**“[In response to Mia’s least favourite way of learning things. Her favourite way of learning things is by reading and writing it down.]**

**Mia: Least favourite way for me is like, you have to do certain things with your writing, not just write it down any way... Like you have to do certain things with your writing, not just write down anything you can come up with.”**

***Primary Students Interview 2  
August 3, 2015***

**Self-determination.** A collection of three important dispositions, **self-determination** can influence student learning and achievement. These dispositions, self-awareness, self-efficacy and self-regulation, were also found in the students from the case study. As noted earlier, the students appeared to know how they learn best and could make cognitive and behavioural decisions based on this. This self-awareness then feeds into both self-regulation and self-efficacy through students making decisions in managing their learning and behaviour, as well as realising that they are capable of success (Wehmeyer,

Agran & Hughes, 2000; Willingham, 2011; Zimmerman, 1990). When students have high self-efficacy, they “are not only more likely to attempt new tasks, they also work harder and persist longer in the face of difficulties (Siegle & McCoach, 2007, p. 278). Therefore, it would seem highly likely that the combination of characteristics found in **self-determination** could also be influential with **student attitude** and **independent learning**. This behaviour and thinking was evident in the case study, along with the home-educating parent and EdTech acting as a scaffold for learning and developing self-regulating practices as well. However, these characteristics do not seem to be an uncommon occurrence within the home education community, as not only have other students “explained that their academic opportunities and achievements were higher at home than when at school... [but also] self-awareness, self-determination, sense of self-worth and opportunity to better understand and accept oneself were identified by parents and students as qualities students improved to a greater extent at home than at school” (Jackson, 2014, p. 7).

**“[Zoe with maths on the PC] Zoe groans as she tries to solve problems. Says she doesn’t like subtraction. Appears content and determined to solve why she got her response wrong. Returns back to audio and text explanation to problem-solve and get the right answer [for the maths question]. Program asks questions on earlier topics as part of the lesson. Zoe comments that these are tricky but [she] perseveres to the end.”**

***Observation  
July 22, 2015***

**Student attitude.** A **student attitude** to learning appears to have significant influence on learning and resourcing. As an integral component of the home education environment (Cardinale, 2013), a student's positive attitude towards learning flows from **empowered learning** (Hattie, 2009; Wang, 2006; Wang & Reeves, 2006; Wang, Shen, Novak, & Pan, 2009), just as the fountain model depicts. In this case study, it was revealed that authentic use of EdTech can contribute to a change in the **student's attitude** to learn and can support positive learning (Smeets, 2005; Wang, 2006; Wang & Reeves, 2006; Wang et al., 2009). It also suggested that students wanted to enjoy learning and that they associated this enjoyment for learning as meaning that learning is going well. This meant that, if an EdTech resource was implemented yet they had difficulty with it or they did not find it helpful, they would raise this concern with their parent. **Collaborative assessment** would then follow, which then could lead into **parent-student collaboration** and the **ALP**. From this understanding, it may be possible that this focus on 'enjoying learning' could be linked to home educating parents reporting "happier and relaxed children who learnt to work at home, demonstrated creativity, imagination, interest and pursuit of hobbies" (Jackson, 2009, p. 86).

**\*In response to what was something significant that Emily had noticed about making a recent change using EdTech in Maths.**

**"Big change in attitude, particularly with Zoe. She's gone from hating maths and doing everything she can to get out of it to enjoying it."**

***Parent Interview 2  
August 3, 2015***

With a focus on an enjoyment of learning, **student attitude** also appears tightly linked with **self-determination**. As outlined previously, **self-determination** encourages student autonomy, self-efficacy and competence (Hagenauer & Hascher, 2010; Siegle & McCoach, 2007). One of the results that is mediated by **self-determination** in learning is connected "to positive learning emotions, especially learning enjoyment" (Hagenauer & Hascher, 2010, p. 496). These

positive learning emotions can then increase student motivation, effort, persistence and ultimately success (Ames & Archer, 1988; Hagenauer & Hascher, 2010; Siegle & McCoach, 2007). This intertwining of **self-determination** and **student attitude** both lay the foundation for students to be equipped and develop the dispositions that are essential for **independent learning**.

**Independent learning.** Including elements of self-directing behaviour, it appeared that using EdTech could also provide a platform for students to learn independently. According to Holec (as cited in University of Hull, 2016, para. 1) “one broad definition of independent learning... is ‘the ability to take charge of one’s learning’”. It involves students:

*“being able to make informed choices and taking responsibility for... [their] own learning activities... two other important elements, vital for success of learning independently, are motivation and feeling confident enough to take decisions and act on them. You also need to appreciate that value of reflecting on your learning and deciding whether it has been effective or whether you need to try another approach” (University of Hull, 2016, para. 1).*

**“If it’s something new, she’ll [Mum] tell me how to do it. But if it’s something that I’ve been doing for a while, or already done it, I just ask Mum if I can hop on.” (Mia)**

***Primary Students Interview 2  
August 3, 2015***

This means that **independent learning** is not necessarily meaning working alone, but that it is the students capacity of taking control of their learning, which can be developed (O’Doherty, 2006; University of Hull, 2016). **Independent learning** also overlaps with self-directed learning, as students are learning to make their own learning decisions, problem-solve and to ‘own’

their learning (Eggen & Kauchak, 2010; Moyle, 2010; O’Doherty, 2006). As noted in conjunction with **ALP**, one example of this from the case study is that both the parents and the child collaborate together to create a plan for the year, which the child then uses to manage their own learning as they self-regulate to keep themselves on track. In addition, this sense of autonomy in learning experienced by home educated students, in particular, may also be influenced by improved feelings of self-efficacy, **self-determination, student’s attitude**, and the **scaffolding** offered by EdTech and home educating parents to develop independent learning skills (Eggen & Kauchak, 2010; Jackson, 2014; Siegle & McCoach, 2007).

**Social capability.** While it appears that home education and the use of EdTech can promote **independent learning**, it can also provide opportunities for **social capabilities**. Using technology in a classroom setting does not mean using it in

**“Both Zoe and Mia do an online art lesson together. They sit in a comfortable position as they listen and watch the art teacher [online video] explain and illustrate the steps. They giggle and talk to each other as they complete each of the steps. They didn’t need any re-focusing. They share little comments and observations with each other. Verbally, they compare their work with the teacher’s on the TV and between themselves.”**

***Observation  
July 22, 2015***

isolation with no social input from others (Garcia, 2014). As highlighted in the **ALP**, there are student-student learning relationships that exist that can be as essential as parent/teacher-student relationships are (Alfonseca et al., 2006; Harding, 2011; Moyle, 2010). The relationship between EdTech and **social capability** seems limited only by the voices of both the child and the parent. That is, it appears to be dependent on the **expectations** of the parent, as well as being influenced by **empowering learning, student-driven teaching philosophy, pedagogical reasoning**, and the availability of the resources themselves. By integrating EdTech in a way that allows for this social aspect of learning, the parent is offering

students social support, which can also act as **scaffolding** for developing self-regulation skills. Students are also being given the opportunity to collaborate together. This collaboration can have a profound impact on learning, as well as helps to develop other important social and communication skills, such as “communicating ideas, being responsible and cooperating with others” (Alfonseca et al., 2006, p. 378).

**Expectations.** As highlighted earlier, emerging from **resourcing** was the intentionality behind the decision for the use of the EdTech resource, which revealed clear parental **expectations**. These **expectations**, both of the specific resource and of the student, appeared to influence the selection and integration of the EdTech. With the base of these **expectations** flowing from a **student-driven teaching philosophy** and **pedagogical reasoning**, this foundation seemed to lead to **expectations** that encompassed learning engagement, academic success and providing boundaries that give room for **self-determination** and **independent learning**. Barwegan (2004, p. 43) notes that parents with high expectations of their children provide “the strongest indicators of [their child’s] academic achievement”. Furthermore, that “parental expectations of home education generally focused on healthy social and personal maturity for children. Some parents looked forward to building academic abilities but

**\*In response to Mia and her self-regulation when using EdTech.**

**“Mia, on the other hand, I have to be the one who regulates, and it could just simply be an age thing yet. But yes, self-regulation is not her strong point yet... Rather, siblings or me will pull her back to task. So, that’s something we need to work on.**

**Q: Do you still give her opportunities to try?**

**Yes... she’s not bad actually at self-regulating when it’s not to do with technology. So, her English work she is absolutely up to date.”**

***Parent Interview 2  
August 3, 2015***

most parents hoped to meet their children’s individual needs, whatever these might be” (Jackson, 2009, p. 82). With a glance back to the child’s voice in this tier, the evidence of these other deeper focuses, alongside academic success, can be seen. Students learning these skills and dispositions, including **self-determination, inspiring creativity, independent learning, and social capabilities**, are all supported through parental **expectations**. These **expectations** can go beyond academic learning and into promoting “healthy social and personal maturity for children” (Jackson, 2009, p. 82)

**Scaffolding.** Sharing similarities with **expectations, scaffolding** is offered for academic learning, managing the EdTech resource, as well as these deeper learning

essences found in the child’s voice and mentioned previously. Specifically focusing on EdTech, it appears that when new EdTech is introduced, the parent offers **scaffolding** to help the student in knowing how to use it and its purpose. Some EdTech resources can also act as scaffolds themselves for promoting both academic achievement, **independent learning** and **self-determination**, particularly those that offer a concrete mechanism to help students monitor progress toward learning goals (Eggen & Kauchak, 2010). Additionally, it was also found that older-siblings can also offer **scaffolding** for younger siblings, adding yet another layer to the **social capabilities** and social-cultural context of learning (Eggen & Kauchak, 2010; Harding, 2011). This three-way scaffold, incorporating parents, EdTech, and siblings, assists the learner to navigate, interact and negotiate “their ways through their zone of proximal development” (Harding, 2011, p. 31) with competent guides. Then, as students begin to master the concepts, gradually more responsibility of managing their learning is handed over to them (Eggen & Kauchak, 2010). This emphasis on

students taking more responsibility in their learning is a common, recurring theme throughout the child's voice in the case study.

**Outsourcing instruction.** Through the process of integrating EdTech, home educating parents appear to have found a means of bridging the gap between what the parent knows or is skilled at, and what they are not familiar or confident about teaching. As part of **resourcing**, the parent is actively finding 'someone' or 'something' through multiple educational options that is more knowledgeable or can offer support to ensure that the child's needs and goals are met (Anthony & Burroughs, 2012). After all, due to the availability of a variety of EdTech resources accessible now (Hanna, 2011), technology appears to be lowering informational and instructional barriers that once hindered home educating families by offering support to deal with these informational and instructional challenges (Andrade, 2008). This practice of using EdTech in this way can lead to the parent

**"Emily recently located the online art lesson videos that were age appropriate, level-appropriate and well-structured. This was due to a need in finding something to teach art as it is an area that Emily doesn't feel particularly strong in... For art, Mia and Zoe watch an online art lesson. The art teacher explains [and models] each step during the video. She scaffolds each step of the planning process till the finished product as the girls follow along."**

**Observation  
July 22, 2015**

**"Q: How do you know if something is 'not working'?"**

**Emily: If the child's not engaged, or if I use some form of assessment and the results are not there."**

**Parent Interview 2  
August 3, 2015**

acting as a facilitator of learning rather than simply a "dispenser of knowledge" (Garcia, 2014, p. 93). By **outsourcing instruction**, home educating parents are able to structure learning activities that allow students to take more ownership from the beginning (Garcia, 2014). In addition, some forms of EdTech can also help scaffold self-regulation abilities, as mentioned previously.

**Collaborative assessment.** This final catchment is where all the essences that have flown through the tiers of the fountain merge again to determine the effectiveness and usefulness of the EdTech resource. Both the child's voice and parents' voice play a role in this, as the results of **collaborative assessment** appear to

then feed into **student-parent collaboration**, before leading back to the **ALP** to begin the process again. The parent considers that student enjoyment for learning, engagement and academic results are indicators for assessing the usage of resources. If there are poor results in these areas, it appears that the responsibility is placed on the resource and not the child, and the parent begins the search for new resources that will help the child achieve. This student-centred focus (Barratt-Peacock, 2014; Harding, 2011) combined with the child verbally sharing his/her thoughts, means that the child's voice is present and can be part of the assessment of resourcing selection. Anthony & Burroughs (2012), Cardinale (2013) and Sheehan (2002) also note that home education is a collaborative family effort. However, in this case study it appears that this **collaborative assessment** is completed almost tacitly to both the parent and the students.

**“Mia: I know, when it’s [learning resource] not working well, then I don’t enjoy it. And when it’s working well, I’m really enjoying it.**

**Zoe: Because Mum tells me it’s not working. ”**

***Primary Students Interview 2  
August 3, 2015***

This may be due to a “teaching process [that] is based upon a close parent to child relationship” (Harding, 2011, p. 236) making it more challenging to distinguish the different voices collaborating together.

## **Conclusion**

As the Fountain Model (Figure 5.1) suggests, the process of integrating EdTech into home education has the potential for being multifaceted, taking into account the two influential perspectives of both the parent and the child. As a result, at the core of this process is **student-parent collaboration**, which promotes the cyclical nature of integrating EdTech that leads into an **Authentic Learning Partnership**, which appears to be the starting point of the entire process. In addition, it also appears that parents’ and students’ perspectives also merge at two other points in the model, that of ‘**resourcing**’ and ‘**collaborative assessment**’. In between these stages, the voices seem to separate. The student’s perspective gives voice to areas such as his/her **strengths, needs and interests**, which flows into **empowered learning**, followed by **inspiring creativity, self-determination, student’s attitude, social capability and independent learning**. Whereas, the parent’s perspective suggests different yet complementary areas, beginning with a **dynamic curriculum** and **parent’s**

**awareness of the child**, which moves into **student-driven teaching philosophy** and **pedagogical reasoning**. Then, the home educating parent appears to consider the **expectations, scaffolding** and the option of **outsourcing instruction**. All of this, an individual yet intertwining process, stands on a base of **social-emotional learning** and **authentic learning**. To summarise, the results of this entire integration process appear to contribute to EdTech being integrated in a way that can facilitate home educators creating a personalised program for the individual child while also promoting skills associated with lifelong learning.

Now that we have unpacked the findings of the case study, interpreting them within the larger research context through literature, it is time for the final stage of this project. In the next chapter, “Chapter 6: Going Beyond”, we will consider the implications of the findings and how this project can fit in the larger educational and political landscape of home education and EdTech, both in Australia and internationally.

## CHAPTER 6: GOING BEYOND

*“There can be infinite uses of the computer and of new age technology, but if teachers themselves are not able to bring it into the classroom and make it work, then it fails.” - Nancy Kassebaum*

(Gupta, 2015, para. 3)

### Introduction

In “Chapter 5: The Inside-Outside Interpretation”, we discussed the interpretation of the findings concerning integrating EdTech into home education, which revealed the integrating process from both children’s and parents’ perspectives. This integrating process was represented by the Fountain Model (Figure 5.1), which emerged from the coding process and formed the foundation for the chapter. Findings and literature were blended together to explain each theme, or essence (Van Manen, 1990), that featured in the model. The purpose of this was to capture and portray the roles and relationships between these essences, revealing an intertwining yet independent pattern in the learning partnership between parents and children. This involved figuratively stepping outside the Parker family’s home and peering through the window in order to view the research site in a way that provided an ‘outside’ perspective and deepened understanding, building on from being immersed and familiar with the family as in “Chapter 4: The Inside Experience”.

However, in this final chapter, it is time to go beyond this case study and consider the implications of the findings and how this project can fit into the larger educational and political landscape of home education, both in Australia and internationally. In other words, we are looking at how answering the following question can contribute to the education field outside of the Parker family context:

**“How does one family integrate educational technology in the home education of their primary-aged children?”**

This chapter briefly suggests some of these possibilities, as well as areas for further research.

## **A Puzzle Piece**

Like a puzzle piece that connects to an existing puzzle that is still under construction, the following are suggestions for how this case study may contribute to the education field:

- 1. Provides additional information that can help legislators make informed decisions on Australian home education.** One of the key areas that can cause tension between legislators, regulators and Australian home educators is that regulations are sometimes made without referring to home education literature (Jackson, 2014). As Jackson explains, “there are over three decades of research into home education practices in Australia and this research, as in any other situation, should inform legislators and regulators when making decisions about the governance of home education” (Jackson, 2014, p. 10). With Drabsch (2013, p. 10) commenting that “much remains uncertain about education” and Keenan (2013) expressing the difficulties in researching home education due to the uniqueness of each home education situation and that so much of it goes unnoticed, this case study provides additional information and a first-hand account into an Australian home education site.
- 2. Offers a practical glimpse into a working model of one family’s home education practice with EdTech.** With the Fountain Model offering a representation of how integrating EdTech in home education can take place, this working model could be useful to a number of stakeholders. Firstly, as explained previously, it could contribute to making decisions about the governance of home education, therefore assisting in easing tensions between regulators and home educators (Jackson, 2014). Secondly, it could also be a resource for both home education networks and home educating families, providing an example of how one home educating family, with over 10 years of experience, operates and integrates EdTech into their program.
- 3. Contributes to the limited literature available concerning home education and EdTech, as well as to research in Australian home education.** According to Neil, Bonner & Bonner (2014), research into home education and technology is limited. In addition, the amount of research into Australian

home education is described as having a “small but growing presence” (Jackson, 2014, p. 2). This study can contribute to both these research fields, at an Australian and international level, by expanding the literature base available.

4. **Suggests possibilities for integrating EdTech using a constructivist and student-centred approach.** With importance placed on integrating EdTech using a constructivist approach (Moyle, 2010; Smeets, 2005), promoting authentic (Smeets, 2005) and connected learning contexts (Garcia, 2014), and giving students the flexibility to be creative, innovative, self-directed and able to make mistakes (Moyle, 2010), this study provides some practical examples of what this can look like. As Guerrero (2010) highlights, often there can be a change in teacher thinking concerning the use of EdTech, however this change does not affect how they apply this knowledge in a practical context. Through being able to individualise, or personalise, pedagogy to the student (Moyle, 2012), teachers are able to enhance and support effective learning and provide an optimal learning environment (Moyle, 2010; Smeets, 2005). The Fountain Model also offers guidance for the integration process that contributed to achieving this result.

### **Other Puzzle Pieces**

While this case study can contribute to education field in different ways, it also became apparent through this study that there are other puzzle pieces that need to be found. The following are some recommendations for further research:

1. **Extend this study to explore how other Australian home educating families are integrating EdTech in home education.** This research project only explored one case of how a family is integrating EdTech into home educating their primary aged children. Is the approach the Parker family used similar or dissimilar to other home education sites?
2. **Investigate the Fountain Model and its relevance to other home education sites.** Similar to the previous point, does the Fountain Model offer a model for how Australian home education works across multiple sites?

- 3. Explore possibilities of integrating EdTech into a mainstream classroom using a constructivist and student-centred approach.** Is it possible for the constructivist and student-driven approach of home education, which contributes to integrating EdTech effectively according to literature, to be adapted to a mainstream classroom? Is the concept of personalising learning for each student, using EdTech, possible within the current structures of mainstream classrooms?

### **Conclusion**

This case study can contribute to the education research field in multiple ways. It could support legislators, regulators, education researchers, home education networks and home educating families. While this study expands the literature base available on home education and technology, as well as Australian home education research, there are also more possibilities for further research. These can include extending this case study to include additional home education sites, as well as investigating the relevance of the Fountain Model across other home education sites.

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## APPENDIX A

### REFLECTIONS AFTER FIRST ROUND INTERVIEWS

| FIRST ROUND INTERVIEWS (Parent, Primary-aged Children)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
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| <p><b>What I learnt:</b></p> <ul style="list-style-type: none"> <li>• Many resources available</li> <li>• Contrary to research, does not appear as collaborative decision-making process. <span style="color: red;">Need to ask about what grounds the basis of her curriculum decisions.</span> <span style="color: green;">May not be “collaborative” in terms of discussion, but is it “learner-centred/learner-driven”?</span></li> <li>• Emily (parent) uses a variety of tech resources in everyday life.<br/>Also HIGHLY interesting to note Mia and Zoe response of they learnt to use tech from older siblings, Mum and Dad (in conjunction with digital natives/immigrants thinking etc.)</li> <li>• Children unsure of help/hinder of tech.</li> </ul>  |
| <p><b>Gut Reactions:</b></p> <ul style="list-style-type: none"> <li>• <span style="color: red;">Need to understand more about decision-making process.</span></li> <li>• Distraction factor of technology – BIG DEAL</li> <li>• <span style="color: green;">Are students aware of why changes are made?</span></li> <li>• <span style="color: green;">Is tech used ‘on top’ or embedded?</span></li> <li>• <span style="color: green;">Gamification – does it work/is it relevant?</span></li> <li>• <span style="color: red;">Need to understand deeper student responses to tech.</span></li> </ul>                                                                                                                                                              |
| <p><b>Reflection:</b></p> <ul style="list-style-type: none"> <li>• <span style="color: green;">Is the implementation of EdTech different depending/based on the needs, strengths and interests of the child?</span></li> <li>• Changed over time – <span style="color: green;">resource availability?</span></li> <li>• <span style="color: green;">What are the best/preferred ways the students’ learn? Are these reflected in decision-making?</span></li> <li>• <span style="color: green;">Parent’s personal philosophy on home education? Motivations, etc.</span></li> <li>• <span style="color: green;">Is there differentiation?</span></li> <li>• Digital immigrant/native – <span style="color: green;">not relevant in this context?</span></li> </ul> |

# Evidentiary Warrant

Question: How does one family integrate educational technology in the home education of their primary-aged children?



| Code/Theme         | What does this tell me about the Question?                                                                                                                                                                                                        | Context and/or process                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Literature                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|--------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Dynamic Curriculum | The integration of ET is in a constant state of change that is dependent on the needs and learning dispositions of the child, the assessment of the parent on the ETs effectiveness, student-parent collaboration, and availability of resources. | <p>P2 – “First one is the maths curriculum because they can watch their maths lessons online and then do their maths class. This was inspired by hitting a road block with L and with R and looking for an alternative way to approach is and it has made quite a difference.” (p.1)</p> <p>P2: “So, for instance with Mathematics, although it was technology and it was all ‘you beaut’, the long term learning wasn’t evident when we did the assessments.” (p.1)</p> <p>Ob 22/7: R recently located the online art lesson videos that were both age-appropriate, level-appropriated and well structured. This was due to a need in finding something to teach art as it is an area that R doesn’t feel particular strong in. It was implemented and trialled for the first time during this observation.</p> | <p>Home educators adopting the eclectic model select “from a menu of educational choices to meet students’ individual instruction needs” (Anthony &amp; Burroughs, 2012, p. 1). This results in a curriculum that tends to be student-orientated, student-driven and utilises a wide variety of resources (Barratt-Peacock, 2014; Jackson, 2014). The eclectic model appears to be the most common model that the majority of Australian home educators adopt, especially long-term homeschooling families (Barratt-Peacock, 2014; Croft, 2013; Jackson, 2009). However, Keenan (2013) remarked that this transition into a less-structured, informal learning environment could occur after as little as two years (Drabsch, 2013).</p> <p>“self selected, delight directed learning of the home educated child” (Barratt-Peacock, 2014, p. 17)</p> <p>“By contrast the only limit on what home educated children learn is their own stamina and interest!” (Barratt-Peacock, 2014, p. 6)</p> <p>“Home education does not focus merely on the learning ‘NEEDS’ of the child, whoever decides what that means, but the child’s individual interest and imagination are let loose upon her environment and so guided as to incorporate and ‘needs’ and go well beyond!” (Barratt-Peacock, 2014, p. 9)</p> |

|  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|--|--|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  |  | <p>HS2: [ET in HE back when he was in primary school] "J - All the way through, really, it was very much paper-based... Didn't use it that much. I guess towards the end, so the end of Year 8, probably Year 8, I had a computer that I would use but it wasn't often." (p.1)</p> <p>HS2: "J - Usually it was just watching videos. So, she'd go, "you've done your schoolwork, you can go watch it now". And so I would go over and put it on myself... [ET was] Bit of a reward really." (p.3)</p> <p>HS2: "Q - What do you see as being differences between how you did primary school with technology compared to how your two younger siblings are currently using it for school?</p> <p>R - They're using a lot more that I was at their age, because well it wasn't as readily available and there wasn't the programs there are now to help with their schoolwork.</p> <p>J - Everything they do is on computers and technology. I didn't do anything on computers or technology." (p.5)</p> | <p>"The home educator's view of the role of teacher was that a teacher facilitates the development of the whole child through various stages of development and in the majority of their experiences. Their view of the role of teacher was organised around a personalised whole-of-the-child pedagogy... the home educator's definition of the word 'teacher', with its relational focus and personalised pedagogy, may positively inform new definitions of the role of teacher and its associated practices." (Harding, 2011, p. 235)</p> |
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|------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Strengths, Needs & Interests | <p>The parent understands individual student's strengths, needs and interests and links them into practice. ET resources are generally integrated in a way that aligns with students' preferred learning dispositions. Students appear to appreciate this link, which is reflected in their enjoyment of the task. Parent and children have an awareness that ET can be a distraction from completing their work.</p> | <p><b>PC1 – "T: Cause you get sometimes distracted.<br/>L: You want to something else other than schoolwork.<br/>T: And then you do it." (p.4)</b></p> <p><b>P1 – "Its biggest issue for me is the distraction ability. So, whether it's on the iPad, iPhone or on the computer, at the click of a button on the computer, there are a lot of distractions available." (p. 2)</b></p> <p><b>P2: "[Based on preferred learning dispositions]... in history I will look for videos that engage her interest, whereas with L, she is more likely to be happy to read an article..." (p.2)</b></p> <p><b>P2: "Obviously, L will enjoy the other [watching videos], but she doesn't need the, I guess, visual stimulation. She is more likely to be happy to nut it out." (p. 2)</b></p> <p><b>Ob 22/7: "(L with maths) Appears content and determined to solve why she got a response wrong. Returns back to audio and text explanation to problem-solve and get the right answer [for the maths question]."</b></p> | <p>"self selected, delight directed learning of the home educated child" (Barratt-Peacock, 2014, p. 17)</p> <p>"By contrast the only limit on what home educated children learn is their own stamina and interest!" (Barratt-Peacock, 2014, p. 6)</p> <p>"Home education does not focus merely on the learning 'NEEDS' of the child, whoever decides what that means, but the child's individual interest and imagination are let loose upon her environment and so guided as to incorporate and 'needs' and go well beyond!" (Barratt-Peacock, 2014, p. 9)</p> <p>"Differentiated instruction enhances learning for all students by engaging them in activities that better respond to their particular learning needs, strengths, and preferences. The goals of differentiated instruction are:</p> <ul style="list-style-type: none"> <li>- To develop challenging and engaging tasks for each learner.</li> <li>- To develop instructional activities based on essential topics and concepts, significant processes and skills, and multiple ways to display learning.</li> <li>- To provide flexible approaches to content, instruction, and products.</li> <li>- To respond to students' readiness, instructional needs, interests, and learning preferences.</li> <li>- To provide opportunities for students to work in varied instructional formats...</li> <li>- To establish learner-responsive, teacher-facilitated classrooms." (Heacox, 2012, p. 1).</li> </ul> <p>Home educators adopting the eclectic model select "from a menu of educational choices to meet students' individual</p> |
|------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                     |                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                |
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|                     |                                                                                                                                                                    | <p>PC2: "[Her favourite time when she used technology for school and enjoyed it] T – Watching the Oldest Pyramids series... I had to write things down [for her history project]" (p. 4)</p> <p>*Watching correlates to T preferred learning disposition – watching and writing.</p> <p>PC2 "Q – What made you enjoy it? [Her favourite time using ET for school] L – I love drawing, it's like art."</p> | <p>instruction needs" (Anthony &amp; Burroughs, 2012, p. 1). This results in a curriculum that tends to be student-orientated, student-driven and utilises a wide variety of resources (Barratt-Peacock, 2014; Jackson, 2014).</p> <p>Research indicates that home education is a collaborative family effort (Anthony &amp; Burroughs, 2012; Cardinale, 2013; Sheehan, 2002), with the approach being child-centred, "driven by the learner" (Barratt-Peacock, 2014, p. 10) with the purpose of meeting the needs and interests of the child (Anthony &amp; Burroughs, 2012; Barratt-Peacock, 2014; Cardinale, 2013; Sheehan, 2002).</p> <p>"However, the finding that home-educating parents operate in the role of learner indicates that the learning is more than learning about academic content. It includes learning about home education, about education in general, about their children's individual characteristics and educational needs and about spirituality." (Harding, 2011, p. 225)</p> <p>"Three students discussed their reactions to DECV. They found it a useful guide for their learning, but all found it difficult to stay motivated and interested when it did not cater specifically to their individual and different learning needs. Two students moved to more personalised eclectic programs after two years." (Jackson, 2009, p. 231)</p> | <p>Research indicates that home education is a collaborative family effort (Anthony &amp; Burroughs, 2012; Cardinale, 2013; Sheehan, 2002), with the approach being child-centred, "driven by the learner" (Barratt-Peacock, 2014, p. 10) with the purpose of meeting the needs and interests of the child</p> |
| Teaching Philosophy | With the eclectic/informal home educating structure appearing the most prevalent in Australia as well as the respondents selected model, the essence of adopting a | <p>P2: "So, for instance with Mathletics, although it was technology and it was all 'you beaut', the long term learning wasn't evident when we did the assessments." (p.1)</p>                                                                                                                                                                                                                            | <p>Research indicates that home education is a collaborative family effort (Anthony &amp; Burroughs, 2012; Cardinale, 2013; Sheehan, 2002), with the approach being child-centred, "driven by the learner" (Barratt-Peacock, 2014, p. 10) with the purpose of meeting the needs and interests of the child</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                |

**APPENDIX C**  
**ETHICS APPROVAL**



**Human Research Ethics Committee**  
Telephone: 02 4980 2121  
Fax: 02 4980 2117  
Email: research.ethics@avondale.edu.au

19 June 2015

Samantha Rippingale c/- A/Prof Phil Fitzsimmons  
Faculty of Education, Business & Science  
Avondale College of Higher Education  
PO Box 19  
COORANBONG NSW 2265

Dear Samantha,

Thank you for submitting your amended ethics approval application and supporting documentation for your project *A case study on the intersection of home education and technology*, as part of your Bachelor of Education (Primary) (Honours) degree with your supervisor A/Prof Phil Fitzsimmons.

I am pleased to advise that the amended documentation is satisfactory and final approval is granted for your project. Approval is granted for the duration of your project to 31 July 2016, project Number [2015:10].

The following additional standard conditions apply:

1. That you notify the committee of any changes to circumstances or research design, which might require a review of the ethics approval.
2. That you provide an annual interim report of your progress to the committee, and a final report once this project is completed. The first report will be due twelve months from the date you commence the research.

We wish you well in this valuable research endeavour.

Sincerely

A handwritten signature in black ink, appearing to read "Roberta Matai", written in a cursive style.

**Roberta Matai**  
Secretary  
Avondale Human Research Ethics Committee

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## APPENDIX D

### AUTHENTIC LEARNING PARTNERSHIP – EVIDENTIARY WARRANT

|                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
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| <p><b>Authentic Learning Partnerships</b></p> <p><i>(changed 18/10/15 from Mutual Authentic Learning Relationship)</i></p> | <p>The integration of ET in home education is essentially bound and enhanced by the authentic learning partnership between parent-student and student-student. There appears to be a "WE" mentality and approach to the nature of learning and home education practice. This partnership offers "freedom" and room to grow on both the educator and the students' behalf. The partnership could almost be described as an ebbing and flowing action, we both parties contributing to the others knowledge and understanding. This also reiterates that learning is social</p> | <p>P2: "That's been interesting with maths being so technology-based. L has been very good at self-regulating. We had a look at the beginning of the year, divided the course up into four reasonably equal parts to cover the four terms and L is very clear about where she's up to and what she needs to do, and if she's behind she will self-regulate herself and will do a couple of lessons to catch up." (p.2).</p> <p>P2: "They have both drawn and decorated gifts for people on their own volition, using the techniques that they learnt... Yes, they were [talking together about what they doing]. Comparing and discussing who was better at what aspect." (p.4)</p> <p>Ob 22/7: Both L &amp; T do an online art lesson together. They sit in a comfortable position as they listen and watch the art teacher explain and illustrate the steps. They giggle and talk to each other as they complete each of the steps. They didn't need any re-focusing. They share little comments and observations with each other. Verbally, they compare their work with the teacher's on the TV and between themselves.</p> | <p>"Yet not only can the students learn from their individual interactions with educational resources, but also they can acquire knowledge during the accomplishment of activities in collaboration with others. Collaborative activities have been used with educational purposes in traditional classrooms since the 70s (Vygotsky 1978), and it has been widely postulated that the realization of this type of activity has a great impact on learning (Dillenbourg 1999). It also helps the students to develop social, cognitive and reasoning skills such as thinking, making ideas explicit, communicating ideas, being responsible and cooperating with others (Barros and Verdejo 1998; Schlichter 1997)." (Alfonseca et al., 2006, p. 378).</p> <p>"The findings of the study posit that the role of teacher is mostly developed through interaction between the parent and the children who are being taught. Parents found that the flexibility of home education allowed for their role as teacher to develop according to the educational needs of the child and of their families. The pedagogical aspect of the role was also informed by interaction with other home educators in a shared community network and by interaction with the wider educational community as home educators responded to the formal requirements of the state academic syllabus. In addition, the role was informed informally, as parents mediated their children's learning in a process of interacting with their local communities.</p> <p>In summary, in the role of teacher, the home educating parent facilitates formal and informal educational experiences, in a real life setting, which are tailored to the needs of the individual child. This teaching process is based upon a close parent to child relationship, which can develop</p> |
|----------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

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|  |  | <p>PC2: "If it's something new, she'll [Mum] tell me how to do it. But if it's something that I've been doing for a while, or already done it, I just ask Mum if I can hop on." (p.4)</p> <p>PC2: [Based on her favourite time of using ET for school, what did T do and how?] "Yep [she knew what to do]... See what was on the website. Mum didn't tell me anything. She just gave it to me [PC with the bookmarked websites]." (p. 5)</p> <p>PC2: "He's always watching things when he's supposed to be doing school. So, he takes ages on the computer and then he doesn't do anything." (p.1) *Could this possibly relate to authentic learning partnership? Both girls appeared to adopt parent expectations and make them their own, evidence by evaluating and enforcing them on an older sibling??</p> | <p>a new type of learner, contextualised in the real world." (Harding, 2011, p. 235-236)</p> <p>"Connected learning transforms classroom spaces and shifts expectations of expertise and content delivery. Instead of following traditional, "banking" models of education (Freire 1970), teachers, too, are learners in connected learning environments. I want to underscore that in this context then, the principles of connected learning (e.g., it is interest-driven and collaborative) apply to teachers, as well as their students." (Garcia [Ed.], 2014, p. 6)</p> <p>Research indicates that home education is a collaborative family effort (Anthony &amp; Burroughs, 2012; Cardinale, 2013; Sheehan, 2002), with the approach being child-centred, "driven by the learner" (Barratt-Peacock, 2014, p. 10) with the purpose of meeting the needs and interests of the child (Anthony &amp; Burroughs, 2012; Barratt-Peacock, 2014; Cardinale, 2013; Sheehan, 2002).</p> <p>"However, the finding that home-educating parents operate in the role of learner indicates that the learning is more than learning about academic content. It includes learning about home education, about education in general, about their children's individual characteristics and educational needs and about spirituality." (Harding, 2011, p. 225)</p> <p>"In summary, in the role of learner, the home educating parent experiences a self-directed, child-focused course of learning about education, which has immediate application to the family's educational endeavour. This learning process brings change to the parent, resulting in a new type of educator, a home educator." (Harding, 2011, p. 227).</p> |
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## **APPENDIX E**

### **INTERVIEW QUESTIONS**

#### **Interview Questions – Round 1**

##### ***Parent (Teacher), Primary-aged Students, & High School Students***

1. How are you using technology in school?
2. Have you used technology in the past? If so, how?
3. How does technology help or hinder (cause problems for) you in your schooling?
4. Do you use technology in everyday life? If so, how? (*What forms/with family/individually etc.*)
5. How did you learn how to use technology?
6. What are your feelings on using technology?
7. Describe to me your least and favourite part of technology for school? (*How do they use it, what is it used for, etc.*)
8. What is your role (in choosing what you do for school) in the decision-making process in what takes place in your schooling? (*Big picture and tech*)

#### **Interview Questions – Round 2**

##### ***Parent (Teacher)***

1. In our first round of interviews, there appeared to be some guidelines in place for using technology for school. What are your guidelines for using technology for school?
2. What, if any, are some expectations that you have concerning implementing technology as part of school? (Are these known by students?)
3. Previously you mentioned that you use technology to find other ways of learning when something “does not work”. How do you know if something is not working?
4. What are some recent changes that you have made to your schooling involving technology? Can you describe to me the circumstances or reasoning that inspired or drove these changes? (Context and motivation, thought process – students’ needs, research, resources available, pedagogical reasoning, expectations, etc.)

5. Can you describe to me how you teach when your children are using technology? What about when you are implementing something new?
6. Both Lacey and Tiarey are in primary school. What do you see as being some of the similarities and differences in learning between them? Do these factor in to how you choose what they do for schooling, particularly with technology? If so, how?
7. How do you perceive opportunities for creativity and self-regulating learning in relation to the use of technology for school? (self-regulating = Setting and achieving goals, time management, planning, self-monitoring, self-evaluating and taking control of one's learning)

### ***Primary-aged Students***

1. What are the guidelines for using technology for school?
2. How do you think you learn things the best?
3. What is your favourite and least favourite way of learning things?
4. If you are trying something new for school, how do you know if something is working well or not? (What happens if it doesn't? Any feedback to parents?)
5. How does your Mum teach when it's time to use technology for school? What if it is something new?  
(Independent/scaffolding/demonstrating/guiding/questioning/explaining/monitoring, etc.)
6. Tell me about a time when you used technology for school and you really enjoyed it. Explain to me what you did, how you did it, what made you like it.... (Any signs of creativity, independence, expectations, self-regulating learning?)

### ***High School Students***

1. What are the guidelines for using technology for school?
2. How do you think you learn things the best?
3. What is your favourite and least favourite way of learning things?
4. If you are trying something new for school, how do you know if something is working well or not? (What happens if it doesn't? Any feedback to parents?)
5. How does your Mum teach when it is time to use technology for school? What if it is something new?

6. Tell me about a time when you used technology for school and you really enjoyed it. Explain to me what you did, how you did it, what made you like it.... (Any signs of creativity, independence, expectations, self-regulating learning?)
7. What do you see as being differences between how you did primary school with technology compared to how your younger siblings are currently using technology for school?

**APPENDIX F**  
**INTERVIEW SAMPLE (PARENT 2<sup>ND</sup> INTERVIEW)**

Samantha: In our first round of interviews there appears to be some guidelines in place for using technology for school. What are your guidelines for using technology for school? Or some rules for the student.

■■■■ Um. So I usually say that you have to have your English subjects done first, because otherwise technology will take over and push them out of the way. So your core English subjects and because our maths is currently technology based I usually require them to do English first and then they may do maths second and any other form of technological learning after that.

Samantha: Yep.

■■■■ Ensure that the core things still happen.

Samantha: Yes. All righty. So that's the main one?

■■■■ Correct.

Samantha: What, if any, are some expectations that you have concerning implementing technology as part of school? So, what do you expect the students to do, if that makes sense.

■■■■ Well. I feel that because technology is such a huge part of life and every job that they will be likely to do in the future that they need a good grasp of technology, and they need to be comfortable using it. Apart from that, also by using technology I feel like I'm giving kids a greater variety in learning style opportunities.

Samantha: Yep. Learning style opportunities. Ok. So previously you mentioned using technology to find other ways of learning when something does not work, how do you know if something's not working?

■■■■ I guess if, a couple of ways that I'll look at it. If the child is not engaged, or if I use some form of assessment and the results are not there. So for instance with Mathematics, although it was technology and it was all 'you beaut' the long term learning wasn't evident when we did the assessments.

Samantha: Yep. All righty. What are some recent changes you've made to your schooling involving technology and can you describe to me the circumstances or reasoning that inspired or drove these changes?

■■■■ Um first one is the maths curriculum because they can watch their maths lesson on line and then do their maths class. That was inspired by hitting a bit of a learning block with ■■■■ and with ■■■■ and looking for an alternative way to approach it and it has made quite a difference.

Samantha: Yep, what have you noticed?

■■■■ It's visual, it's audio and it has instant feedback as to whether they are on the right track or not.

Samantha: Yep, so what have you noticed as being one of the big things that has happened because of the change?

■■■■ Attitude.

Samantha: Attitude?

■■■■ Big change in attitude particularly with ■■■■. She's gone from hating maths and doing everything she can to get out of it to enjoying it.

Samantha: Yep. Can you describe to me how you teach when your children are using technology?

■■■■ Um depends on subject. For instance, with art, I turn it on and sit back. With maths likewise I let the computer do the work but I do monitor the progress. With, let me think, I guess with other things, you know, while they might be, while I might not be absolutely involved, because technology is sort of taking the place of your teaching I'm involved in choosing what it is that happens from technology, so I'm still involved.

Samantha: Yes, yes.

■■■■ But yes, it takes away the hard work portion of the teaching.

Samantha: Yeah. What about when you're implementing something new? Is it the same or different?

Because the resources that I'm using currently tend, that are computer based or iPad based, they tend to be usually self-explanatory. So I'll be involved in, you know, in the introductory questions till they get the hang of it, but after that there's less intervention required.

Samantha: Yes, yeah. All righty. Both [redacted] and [redacted] are in primary school, what do you see as being some of the similarities in learning between them, in terms of the way they learn? And do these factor into how you choose what they do for schooling, particularly technology?

Yes. Um [redacted] is very visual and very, probably visual and auditory based, um whereas [redacted] is probably more kinaesthetic and reading based. So for [redacted], for instance, in history I will look for videos that will engage her interest, whereas with [redacted], she is more likely to be happy to read an article.

Samantha: Yep.

Obviously she'll enjoy the other, but she doesn't need the, I guess, visual stimulation, she's quite happy to just nut it out.

Samantha: All righty. And how do you perceive opportunities for creativity and self-regulated learning in relation to the use of technology for school?

That's been interesting with maths being so technology based. [redacted] has been very good at self-regulating. We had a look at the beginning of the year divided the course up into four reasonably equal parts to cover the four terms and [redacted] is very clear about where she's up to and what she needs to do, and if she's behind she will regulate herself and will do a couple of lessons to catch up.

Samantha: Yep.

[redacted] on the other hand, I have to be the one who regulates, and it could just simply be an age thing yet, but yes self-regulation is not her strong point yet.