

Chapter 5

E-portfolios to Capture and Share Moments of Learning



Lisa Kervin, Sue Bennett, and Cathrine Neilsen-Hewett

Abstract Portfolios are used as an assessment document to showcase children's learning. E-portfolio systems have been introduced into early year's education and as yet have not been a focus of in-depth research that moves beyond measures of uptake. These forms of digital documentation capture children's learning but raise questions around what is captured and how the interpretations educators make through the stories they tell, and how these technology platforms can be used to strengthen practice while also communicating with families. In this chapter, we share insights from a project designed to gather insights into the processes and practices of using Storypark in two early childhood settings. We aim to make visible the often unintended or unseen consequences of its use. Drawing upon observations within the services, interviews with educators, and analysis of Storypark entries, we examine the contexts, interpretations, and priorities of the services alongside the use of Storypark. Our analysis of data shows patterns of engagement to understand how digital tools influence what 'counts' as a learning experience and how learning is reported to parents and caregivers to enable us to begin to explore how such technologies are influencing children's experiences of learning.

5.1 Introduction

High quality early childhood environments have educators who are highly skilled in observation, documentation, and reflection. These skills are acknowledged to provide

L. Kervin (✉) · C. Neilsen-Hewett

Early Start Research/School of Education, University of Wollongong, Wollongong, NSW, Australia

e-mail: lkervin@uow.edu.au

C. Neilsen-Hewett

e-mail: cnhewett@uow.edu.au

S. Bennett

Faculty of Arts, Social Sciences and Humanities, University of Wollongong, Wollongong, NSW, Australia

e-mail: sbennett@uow.edu.au

important outreach and communication to families, demonstrating knowledge of individual children's developmental progress, which in turn informs daily routines, intentional practices, and the set-up of the learning environment. While the Australian Children's Education and Care Quality Authority (ACECQA) acknowledges the importance of documentation to "...support and extend children's thinking, learning and development" (nd p. 1), they are not prescriptive about how observation and documentation are completed.

Educators are encouraged to explore techniques to capture their observations in ways that work best for their practice and for their children, families, and communities (ACECQA, nd p. 1). However, observations of learning in early childhood contexts have typically been documented in paper-based formats. Such forms include, but are not limited to, notes and reflections, scrapbooks and portfolios, and printed photographs. This documentation has served an important role in assessment practices and communication between educators in the service and families while also informing an ongoing cycle that evaluates children's learning to inform subsequent planning. These documents provide important records of learning which through reflection and evaluation lead to informed pedagogical decisions and celebrations of children's learning.

Observations of early childhood learning tend to be open-ended and collaborative, with a focus on dispositions and processes of learning. Social and cultural contexts of learning are important and aspects, such as group dynamics and interactions between adults and children and between children, are critical (Fleer, 2010). Current practices have seen observations move away from checklists and tests towards methods of documentation that value context and acknowledge diversity (Pacini-Ketchabaw & Pence, 2011) while encouraging educator reflectivity, engagement and opportunities for learning continuities. Further, opportunities to capture children's voices have been promoted (Nilsson et al., 2015) with evidence that children from as young as three are capable of organising and reporting on experiences that they can relate to (Roth et al., 2004).

Educators play a central role in noticing and documenting observations. Observing, recording, and analysing children's learning behaviours require the educator to have skills that enable them to not only identify instances but also interpret these in meaningful ways (Martin, 1999). A key challenge for educators, however, is that periods of observation usually happen simultaneously with direct interactions with children. This means that educators are therefore rarely provided with an uninterrupted time to record specific moments of practice for individual children. While educators can develop observation skills and compile different ways to document and interpret observations, there is a tension between being present in the learning environment and capturing moments to share and inform future practice.

The nature of documentation is changing with the growing trend in early childhood services to use commercial services providing digital tools and online platforms to record learning. There are a range of digital platforms that educators identify: Kindy Hub, Pencil or PicCollage, Kinderloop, and Storypark (Harrison et al., 2019). These digital formats enable video, audio, photographs, written annotations, and reflections to be combined in ways that can be shared quickly and easily. Such modes have

helped to provide concrete and visible examples of children's learning as contexts and relationships, and the dynamic nature of learning is acknowledged (Dockett & Perry, 2016). These digital platforms are positioned as an easy way for educators to track children's learning while also capturing evidence to be communicated to families.

These digital multimodal forms for documenting experiences offer new possibilities to identify, capture, and value children's learning. While taking photographs of children's learning is not new, the ability to capture evidence using multiple modes (including for example, written language, spoken language, still and moving visual images, and audio) and share this quickly with key stakeholders offers new possibilities. The combination of modes enables the creation of more complex and more purposeful texts (Kress & van Leeuwen, 2006). However, it is important to understand how meaning is conveyed through the various modes and how these modes can work together to convey information to the intended audience (Jewitt, 2009).

Digital platforms can be utilised to forge strong connections between the early childhood educational and home learning contexts. Recent work by Higgins and Cherrington (2017) speaks to the role of e-Portfolios in fostering parent-educator connectedness; while many communication efforts between educators and parents were viewed as informative, opportunities for online conversations, and reciprocal interaction were positioned as particularly beneficial to relational quality. The potential benefits of these platforms for fostering children's learning, however, appear underutilised, suggesting the need for more active scaffolding and support for both educators and families. The limitations of these platforms to create shared learning contexts were echoed by Stratigos and Fenech (2021) who found communication to be mostly documentary and diarising of activities, lacking a deeper analysis of the learning opportunities afforded across the day. The potentialities of these platforms to cement consistent and meaningful connections across key developmental contexts highlight the need for additional research to understand how these platforms are used and the potential flow on effects for young children's learning and development.

There is little evidence-based or research-informed guidance to date about how these platforms can best be used or the effects of this use. In a commissioned review of assessment practices in early childhood contexts (Harrison et al., 2019), several digital platforms were identified by educators with mixed feelings. While educators reported that digital platforms are flexible and creative and enable easy sharing of information (mainly photos and information) with families, while also creating a shared database of information among colleagues, they also raised concerns about ownership of sensitive data, equity of access to information for all families, and the potential for children to engage with generated material. There is need for additional research in the use of these platforms given concern that early childhood assessment practices run the risk of being guided by commercial drivers rather than by the expertise of the early childhood profession. Further, an e-portfolio platform's social validity (Bagnato et al., 2014)—that is its ease of use, accessibility, acceptability, and suitability for supporting communication and collaboration needs across stakeholders—is important considerations in the selection and uptake of any digital tool.

For the purposes of this chapter, we select one digital platform identified by educators and examine how this e-portfolio is used in two services. Harrison and colleagues (2019) described:

Storypark was used by some educators as a daily diary. In some services, educators reported, Storypark was considered a comprehensive tool. It was used to record children's individual goals, and it was also seen to assist with the development of transition to school statements. There were some concerns raised with Storypark by educators, including that it was time-consuming and takes educators away from children; and that the layout is problematic. (p. 58)

Storypark is a tool designed to “record and communicate learning as it happens via photos, video, audio, and observations within a secure online environment” (Storypark.com.au). It is accessed as an app and draws upon affordances of mobile devices including the camera (still and video), ability to audio record, and provide written text through the keyboard. Storypark is marketed as a tool that enables educators to receive instant feedback and plan new ways to extend children's unique interests and abilities. Parents and family members can be involved in their child's learning as they access and create their own recordings and shared photos, videos, and comments on a private online network. The platform is described on its website as follows: “Everything we do is childcentric: Storypark works to make a difference—not just a dollar... Our approach comes with a sincere respect for children, including their privacy and contribution”. (Storypark.com.au)

Storypark is essentially an online scrapbook, which allows both early childhood education teachers and parents to regularly interact over a child's learning. Learning stories can be instantly placed online, from where parents remotely access and comment at times and places convenient for them. Hooker (2017) found that e-portfolios can lead to more frequent entries as teachers feel motivated to produce entries given they have a firm sense of audience and know that their entries will be read. Further, there is indication that children can become more involved in conversations about their learning as they draw upon stimulus (in particular, video) in their home context (Hooker, 2019). However, the rapidity of this documentation and the external pressures felt by educators means these opportunities are often missed (White et al., 2021).

Originating in New Zealand, Carr and colleagues developed the “learning story”, a sociocultural approach to assessment which supports educators to track, assess, and reflect upon children's learning dispositions and engagement in early years contexts. This approach was seen as a way for educators to avoid more formal prescriptive assessment methods, as they produced something helpful for documentation of practice, culturally sensitive, interesting for families, and supportive for learners (Carr, 2001; Carr et al., 2000). The learning story is a narrative account of a learning instance that has taken place. The observing educator records the instance as a story. The story can involve individuals or groups. The educator can reflect on the story as they interpret and analyse the learning that has taken place. In digital contexts, photographs, video, and audio files can accompany the written story which enables both visual and audio connections, making the story accessible to the child/children and families, and potentially optimising the opportunities for revisiting. Learning stories have

been endorsed as a comprehensive assessment resource to document and showcase children's learning (Carr et al., 2019). Carr (2001) describes that learning stories are developed through a dialogic process where the documenting educator discusses observations and interpretations with colleague(s) and child(ren). Loggenberg (2011) found that learning stories were the most common form of assessment in early childhood contexts, yet Niles (2016) identified that some educators struggled to identify perceived needs and how to document these. While suitable for any early childhood context, educator bias could lead to specific interpretations of events and learning (Harrison et al., 2019).

Carr and colleagues (2019, p. 137) provide a useful scaffold for how learning stories can support collaborative learning journeys between children, educators, and families. The authors identify four key components of a learning story which include: (1) a description of an event, including the context and supports; (2) an analysis of the learning with the curriculum in mind; (3) a "what next"? Or collaborative "How might we progress this learning"?; (4) and an opportunity for revisiting and reviewing by children, kaiako (teachers), and whānau (parents and family). This structure not only values the active involvement of children and the use of children's own words in validating the story (Wanoa & Johnson, 2019), but it also positions the learning along a continuum of experience, inviting ongoing reflection and planning while providing guidance and scaffolding for familial engagement, input, and opportunities for reciprocal communication.

5.2 Our Project

The study design was informed by a multimodal social semiotic perspective on learning, (Kress, 2010; Lemke, 1987) and an ethnographic approach to educational enquiry (Kervin et al., 2015). A focus on social semiotics enabled us to focus on social interactions and how educators used Storypark to construct systems of meaning. In doing so, we look to 'meaning' as an active process where actual instances motivate the production of digital learning stories. An ethnographic approach enabled us to embed ourselves within actual settings to observe and understand how these systems of meaning were enacted through lived, everyday experiences in the actual setting and then represented in the digital environment. We obtained permission for this research from both the university human research ethics committee and the governing bodies of the two early childhood services. Pseudonyms are used for all participants in this chapter.

We visited these two services over a month to observe the educators and children during their regular routines as we focused on what motivated the digital capture of content for Storypark and how this was managed by educators and children in the environment. Both services are guided by the *Early Years Learning Framework* (Department of Education & Training, 2009) and were part of one Early Childhood provider (with over 130 services) and had planned educational programmes that are based on the interests, strengths, and learning needs of the children. Both services

were rated “Exceeding National Quality Standard” through measures employed by the NSW Department of Education and were identified by the Early Childhood provider as two services who were using Storypark in effective ways.

Service A is located in a suburb of a large regional city. It is a three-room, 52 place, long day care service catering for children aged from six weeks to five years. Children typically attend the service between two to five days for up to 10 h per day. The key focuses for this service were sustainability, *Circle of Security* (Powell et al., 2009), and the methods of *Marte Meo*, which is a programme from the Netherlands focused on supporting children’s development during daily moments of interaction (Marte Meo International, n.d.). Each of these focuses work to empower the child as the educator works within the realm of child experience and initiation. During our observations one digital camera was available. This camera was in one of the educator’s pockets, and it was this educator who took responsibility for the capture of images to be used for Storypark entries.

Service B is located in a suburb of the state’s capital city. It is a single room preschool catering for 25 children aged three to five years. The preschool follows primary school term dates and operates between 8:30 and 3:00 pm. The key focuses for this service included the *Circle of Security* and *The Educaring Approach* (Gerber et al., 2013) which positions infants and toddlers as equal members in relationships with adults. Central to both approaches is a focus on trust between the educator and child, time for uninterrupted play, and opportunities to interact with others. During our observations, two digital cameras were available to educators. One was hung on a hook just outside the door to the outside space, and the other was hung near the reading area in the inside space. Educators accessed these when they saw something they wanted to capture.

We conducted semi-structured interviews with seven educators across the two sites to discuss and understand their beliefs and practices in their use of Storypark. We focused on how the use of Storypark connected with the service’s goals and priorities for learning. We conducted ethnographic observations for three or four full days in each service spaced over a month to focus on how Storypark was used within each service. During these observations, we took photographs and made fieldnotes as we recorded how the Storypark tool was used, and the learning that was captured. We then shared examples of Storypark use from our observations with the educators to seek further explanation in semi-structured interviews. Further, we were also able to access the Storypark entries produced in the same weeks as our observations. Our analysis of Storypark data in these services showed Service A posted an average of twenty entries per week, and Service B posted an average of eighteen. We then analysed these entries to identify trends in the types of content and stories shared and examined our qualitative data to identify trends and illustrative examples.

Across these services, there appeared to be clear reasons for why educators engaged with the Storypark tool. For these services, it was a tool selected by their governing body. Each of the educators also identified professional learning they had undertaken and challenges and limitations of the Storypark platform. These reflections pose some considerations for the enablers and constraints of the tool; however,

for the purposes of this chapter, we focus our attention on instances of use within day-to-day practice.

Storypark was identified by educators as a tool for engaging with families that would allow them to understand what was happening in the service and how their child was engaging with learning experiences. Amanda described how she thought of Storypark, “I’m really mindful of the families, what our documentation is for, who is reading it, and the value they’re getting out of it”. With this though comes an expanded audience. Jane explained, “...now when we write observations... you know that grandma and grandpa, aunts and uncles ... all reading it!”. Nicole observed, “parents ... they just want to see their children’s pictures” and identified this as a key motivator to how she used Storypark.

Storypark was seen to be a reciprocal communication platform where key stakeholders (families, educators, selected external services, and extended family) could create and respond to posts. Natalie identified the speed of the platform for sharing information explaining, “... they see what we’re posting ... they’re up to speed, we’re up to speed... it’s a two-way thing”. In this way, the tool supported these services to build relationships with families. Amanda shared, “I find the relationships are stronger by using it ... getting more of the whole child ... which I don’t think without the platform, that has never happened like that before”. Natalie explained that in the learning stories families were able to see “the philosophy” underpinning the experiences offered in a way that was connected to their children and responsive to the context of the service.

In the remainder of the chapter, we draw upon our field notes, videos, and photos taken during our observations and interviews with the educators to identify instances of capture and to understand the motivation for these digital documentations of children’s learning. We also use these to examine opportunities, and these educators have taken to engage the affordances of the digital narrative. We now present three illustrative examples of practice from our data which we will then discuss to identify questions for research and practice.

5.3 Illustrative Examples of Practice

Our analysis of the Storypark entries, coupled with our ethnographic data, revealed distinct patterns in how Storypark is used across these services:

- To document, share, and emphasise key moments of practice;
- To notice, showcase, and share individual learning achievements; and
- To identify extensions of intentional practices into play scenarios.

The following have been chosen as typical examples of these key practices. Each example presents a brief description synthesised from contemporaneous notes made by the researcher observing, followed by the image and text that was shared on the platform, followed by accounts drawn from the educators involved.

5.3.1 Documenting, Sharing, and Emphasising Key Moments of Practice

Example 5.1: Child Protection Week (Service A)

Researcher's description: The children gather together in a shared space. Michelle (an educator) talks with the children about "Child Protection Week" and lets them know she has already shared information about this week with their parents by sending them an email. The children are asked "what is the most important job I and [other names of educators] do everyday"? Looking after the children and keeping them safe is emphasised. A series of books (written with a child protection focus) is shown to the children and characters in the stories are introduced before one of the stories is read. During this introduction, Caitlin (an educator) takes a photograph of the children and Michelle together to support a post to families letting them know about service activities for Child Protection Week (Fig. 5.1).



Fig. 5.1 Capture of group activity for "Child Protection Week" (Service A)

Storypark story:

"This week is Child Protection Week. See your email for more information. Each day this week we will be talking about how to stay safe". (Accompanied by photo of the group taken by Caitlin.)

In this instance, Storypark was used to acknowledge an important event in the calendar, *Child Protection Week*. The Storypark platform was used to follow up email communication that had already been sent by the service to families. Michelle reflected that parents would say to her "I want you to tell me everything you do and

I want to take it home with me”. In this spirit, Storypark offered the opportunity to document and share important aspects of practice and occasions as they happened. Michelle further described that “...you don’t want to make it overwhelming, so we choose what we will want to share”. Following up an email by sharing information about the “week” with a Storypark entry showing an aspect of practice was seen to be a meaningful application of a bigger occasion. Posting after the email sent, the message to families that this is an important event worthy of attention. This provides a clear line of communication between specific planned experiences and the families.

In this example, the Storypark entry was appropriate for all families and was shared with the entire parent community. A photograph of the children with an educator, accompanied by a written annotation was mostly documentary serving as a reminder to parents and a snapshot of the event. It appeared that this entry may have been the beginning of a series about Child Protection Week, showcasing the ability of Storypark to build upon a story and generate collective content to emphasise a particular focus. In this way, Storypark served as an opportunity to connect and reconnect with families with key ideas over time, while emphasising the importance of the particular event.

Further, this example serves as documented evidence of the planning around *Child Protection Week* and may also be viewed as “proof” that the focus was taken. The picture taken by Caitlin and shared with the families clearly shows that the children spent time on the topic and used the provided resources (the book series). All the children are gathered in one space, they are all attentive to Michelle and the book she is sharing signalling that this was an appropriate and worthwhile experience for all the children.

5.3.2 *Noticing, Showcasing, and Sharing Individual Learning Achievements*

Example 2: Climbing Trees (Service B)

Researcher’s description: Millie loves to climb trees. She explains to us that she is trying to climb as high as she can. We notice there are mats on the ground under the tree. Millie explains that those are for “because I climb high”, further explaining “I can only climb the tree when the mats are down”. Over a ten-minute period, we watch Millie climb the tree. A younger child watches through the fence and gets excited when Millie makes progress in her climb. Zoe, a peer in the preschool room, also tries to climb the tree. Natalie (an educator on the other side of the playground) notices Zoe’s efforts and calls out “Up and over, Zoe! Up and over! Like Millie” This is important encouragement for Zoe as it both encourages and shows that Natalie is noticing. For Millie, this serves

as affirmation and encouragement. Another educator, Jane, moves over to the tree, she has a camera and takes a picture of Millie in the tree.

Storypark story:

“Millie continued to climb trees today. She is getting so confident! She climbed higher today than we have seen her before. She enjoyed some time at the top sitting in the tree watching her friends”. (Accompanied by photograph of Millie in the tree taken by Jane).

There are several supportive features in the centre’s environment designed to be responsive to the interests of individual children. Climbing the trees in the outdoor environment was something the children had expressed interest in doing, so the educators put in support to encourage this behaviour safely. In this example, we see how the children’s interest in climbing has been facilitated by climbing frames to help them get up to the tree branches and safety mats underneath should they fall. These are evident in the top right of Fig. 5.2. The image and annotation are used to evidence children’s interest and efforts but fail to capture the rich intentionality and scaffolding and support embedded within the learning experience.

Support for individual learning is evident in the behaviour of the educators within our annotation Millie’s tree climbing got the attention of two educators during this



Fig. 5.2 Capture of individual activity (Service B)

ten-minute period. Captured in Fig. 5.2 is Natalie whose attention was directed towards the children climbing, indicating monitoring and supervision. Our observations captured the noticing and encouragement from this educator, which was emphasised when another educator captured an image for sharing on Storypark. The awareness from both these educators about what was happening in this outdoor area was both quick and astute. The accompanying annotation demonstrates a broader awareness of Millie's interests and plays behaviours beyond the captured image.

We were able to talk with these educators about the experience. We asked Natalie (who was watching and encouraging) what caught her attention in this instance. She explained that it was “the benefits of risky play, it shows that adults in my world trust me”. For Natalie, it was validation around the decisions that had been made in the learning environment (i.e., both allowing and enabling children to climb trees). When we asked Jane about the play between Zoe and Millie and what motivated her to capture the image, she said, “so those kinds of things are really interesting just for the parents to think about ... [maybe] she likes doing that at home as well? [climbing trees] ... It might be kind of social? [copying behaviours]”. The possible learning connections between the preschool and the home environments were motivators for Jane. In further discussion, Jane explained that when capturing a moment to record and share through Storypark, “you're thinking in real time”, but then identifying “what's really happening” becomes evident upon reflection. In this instance, she explained, “it's interesting that they're drawn to each other ... that one's really demanding and that one's following and seeing similar patterns ... I need to think about it for them as individuals within the one interaction”. These two different perspectives show just how differently two educators interpret the one event.

Interestingly, in the Storypark entry that followed this experience, it was Millie's climbing that was profiled in the story written by Jane. This is interesting, in that, it is somewhat different to the initial account that Jane offered when we spoke with her about this instance. This prioritisation of the event or activity and the minimisation of the ‘learning behind the story’ is not atypical of educators approaches to digital documentation (e.g., Stratigos and Fenech 2021; White et al., 2021). This may in part be explained by the pressures placed on educators to ensure they capture and include as many children as possible in the daily account of events (White et al., 2021). The story concluded with Millie being able to watch her friends, not that her friends were actually trying to mimic her behaviours and the positive and encouraging role she played in motivating new learnings for other students. While it is understandable that a story can only capture so much information, given the conversations we had with these educators and our own observations of their interactions with the children, we wonder why it was this perspective that was captured. We also wonder what Millie and Zoe may have told us about what was happening in this experience as they identified their learning achievements?



Fig. 5.3 Catching rain (Service A)

5.3.3 Identifying Extensions of Intentional Practices into Play Scenarios

Example 3: Catching Rain (Service A)

Researcher's description: Having recently experienced a drought, the need for and celebration of any rain is a daily conversation in this service. Each morning, we have seen the children and their educators talk about water. They check the rain gauge and see how much rain has fallen overnight. We hear the educators and children talk about how important rain is for the gardens and how the mulch on the soil works to keep the soil moist. The previous week the children conducted an experiment where they used different containers to collect rain.

During a visit, one morning we see Caitlin (an educator) sitting on the side of the sandpit, eleven children are busily playing around her. There are many different activities going on. Two children are eagerly planning how they might use some of the sand play equipment (buckets and containers) to have multiple objects to "catch rain", expanding the experiment they conducted the week before. Caitlin notices this, she reaches into her pocket to remove a camera

and takes some footage of the children in conversation. She also captures a still photograph of the play (Fig. 5.3).

Storypark story:

“Next week children in the PSR have decided to have dress up days to help raise money for farmers affected by the drought. For each day, your child would like to come to preschool in ‘dress up’ clothes please donate a gold coin in our money box. This is completely voluntary. Many of our children have been conducting experiments to catch rain, if only we could send it to the farmers!” (Accompanied by still photograph of children at play).

The topic of this story was connected to a real-life issue which affected many communities across the country. The connection to a real-life issue was important for the educators in this service and demonstrated through a planned sequence of experiences focused on the drought. Further, these children had personal experiences of the drought through home, local community, and their extended families, and this play was an opportunity to connect children’s learning about the natural world around them to personal response. In this way, making meaning was an active process as the children drew on their real-world knowledge, built upon this through intentionally planned experiences, and demonstrated their understanding and interpretations of this knowledge through play.

The educator (Caitlin) noticed a transfer of “knowledge” from an episode of intentional teaching into a play scenario. Caitlin’s skills of observation were refined and skilled, she was able to identify this specific play while observing a large group with multiple activities happening. The play that caught her attention was initiated by the children during free play and served to support the call for action in the Storypark story. While the images—which included evidence in two forms (moving and still image) to support the story—provides the children with clear validation that what they are doing is important and has been noticed, the annotation does not reflect the deeper learnings and is instead used to simply remind parents of preschool events.

Interestingly, what is shared through the Storypark story is an educator’s interpretation of a call to action from the children’s play (dressing up and fundraising venture). While this communication with families validates the play as a demonstration and extension of learning, again we wonder what the children’s interpretation of their play may be? We also wonder what was captured in the video dialogue and what may have been done with this documented evidence of learning?

5.4 Discussion

Formative assessment practices enable educators to record, share, and make judgments about a particular aspect of learning. Observation and documentation are central to child-centred pedagogy and a natural practice for educators. It is important

to note that what educators see and what they report “...may be influenced by the time of day, their relationship to the child, and the nature of the task or activity they have observed” (Harrison et al., 2019, p. 68). While it is important to note these limitations, it is also useful to consider the affordances and social validity (Bagnato et al., 2014) of e-platforms like Storypark and the affordances offered to processes of observation, documentation, and sharing.

Taking a photograph of a child or their work can communicate a powerful message to children that “you and what you are doing matters; and this tells us something about you”. (Hope, 2017, p. 32). With this comes significant potential for reflection, in collaboration with children, families, and educators, with the perspectives, each of these stakeholders have used to analyse what is happening to inform subsequent planning and practice. The learning stories approach (Carr et al., 2019) values learning that is collectively planned for by children, educators, *and* families. The photographs, video clips, and interpretive narratives presented in this chapter, while capturing rich learning experiences, fail to optimise opportunities for shared input, or for reflective discussions around learning supports and children’s learning trajectories. Our field notes coupled with our rich interviews with educators showed that across both services educators were highly intentional, reflective, responsive to children’s voices, interest, and developmental capacities while responding to the learning opportunities of the educational context. These insights, priorities, and learning affordances were not reflected in the ‘learnings’ captured in the Storypark extracts. Consistent with arguments forwarded in recent publications (e.g., Stratigos & Fenech, 2021; White et al., 2021), the educators across these two services appeared to be dictated by perceived parental need, the privileging of adult voices and were challenged by competing work demands and documentational requirements. We also noted a level of uncertainty surrounding how these platforms could be used to best meet the needs of children *and* families.

As such, we propose that when composing entries within an e-portfolio platform, educators should be guided by questions such as:

- What does the example tell us about the child’s interests, knowledge, and dispositions?
- What learning is the child demonstrating?
- What is the scenario of the example and how is the child responding?
- What might the child/ren tell you about what is happening?
- What learning processes are evident (e.g., problem solving, collaborating)?
- What does the example indicate about group dynamics and interactions?
- What does it share about power relations, equity, diversity, and inclusion?
- What information does it give about the learning environment and opportunities within?
- What modes have been/could be used to communicate this learning?

As our project suggests, we should anticipate there will be a diversity of ways in which children’s learning is observed and documented, and this will be shaped by who and what the documentation is for. This is closely connected to the understanding of the potential of the software, technology, and the service’s ethos in how this is

used. Who captures the data matters? The different perspectives of those involved in the learning—the child, the educators, the families—provide unique insights into instances of learning. It is critical for educators to carefully consider how any evidence and subsequent documentation assists in (i) planning for subsequent learning experiences and (ii) communicating about children’s learning. Collected evidence and the interpretation of this should capture children’s understandings, learning gains, social enablers, and dispositions. While each of the examples we captured were about the children and their learning, the voices of the children and their perspectives about their learning were not the focus.

It is important to note the implied focus on ‘storying’ through the Storypark platform. Stories allow for descriptive accounts of an event or experience as they document what happens for one child or a group of children. By nature, stories lead to the creation of documentation that is open-ended and allows educators to record all behaviours that they notice. Detail then becomes important to understand not only the activity observed but the context within which it occurred. Dunphy (2010) argues that narratives should be used as a tool for reflection and they need to be created, reflected on, and shared with others to build understanding and shared interpretation. These educators reported that they could see the value and relevance of the Storypark e-portfolio tool for their everyday work in their services. What was less clear was their ability to embrace all the affordances of the tool and to move beyond written text and accompanying photograph formats. Furthermore, many of the captions cited under the images shared throughout this chapter neither invite evaluation nor encourage discussion. This highlights the need for the development of effective frameworks of practice, like those developed by Carr et al (2019) which can be extended to support educators’ decisions around what learning should be captured and then shared on digital platforms, how to scaffold a combined evaluation of that learning by children, educators, parents and carers, and then how best to position this within the broader learner journey.

Digital platforms enable the production of multimodal texts that extend ‘storying’ beyond the realms of traditional print-based possibilities (Kress & van Leeuwen, 2006). A platform like Storypark also allows for the capture of information in multiple modes. To enable this, educators need to understand the more nuanced possibilities of each of the modes—written text, still and moving images, and audio—and how these might work together to produce innovative and meaningful digital media stories. Creating digital stories through a platform like Storypark brings together unique skills from being able to observe unique learning opportunities to also being able to represent these using essential aspects from understanding of the modes and how to best represent these in digital platforms. It is possible that the one piece of evidence may be able to be treated in multiple ways as all angles of the story are told, capturing the perspective of the child as the learner while providing information for parents and educators that can be used to support learning continua, shared discussions, and learning extensions.

Educators observe children during learning experiences as part of regular practice, and our project demonstrated differences in what was documented resulting from an individual educator’s understanding of key moments of learning. The educator

plays a critical role: to notice, to capture, to interpret, and to share. This then raises questions about what it is that is noticed and what is not, what is captured and what is not, and what is shared and what is not. When we consider the purposes, our educator reflections point to ‘messages’ they would like to communicate to parents and families about what is important in children’s worlds and in the worlds of the centres they attend. Example 1 highlights the importance of child protection, both as a responsibility of all carers, but also provides evidence that this work has been done by the centre. Example 2 conveys the value of risky play, while demonstrating care and supervision using the image to show the supportive provisions within the learning environment. Example 3 communicates an opportunity to participate in dressing up and fundraising for a cause important to the community, while showing how learning is taking place through transfer of this topic into play. While these examples present real opportunities for educators to demonstrate how they respond to and build upon children’s interests, while also satisfying their responsibilities for care and education, these have not been realised or reflected in the captions. The potential for disparities between educator intentionality and online pedagogy and documentation was really magnified through this data.

These considerations highlight further possible tensions and challenges that emerge from these practices. While selected moments shared in e-portfolios (online) formats can enable parents and families to feel more connected to a child’s learning, there is need to consider what extent are these moments curated to tell a preferred narrative? And what other narratives are captured but not told? And with increased accountability against standards expected (Roberts-Holmes, 2015) might documentation take on a performative edge for educators and services that shifts towards the ‘schoolification’ of early learning? As identified, the use of Storypark by these services was in response to perceived parental need and documentational requirements and what was shared was what parents wanted to know and ‘evidence’ the services needed to capture. Further, taking in critiques of quantification and datafication (Barassi, 2020; van Dijck, 2014), there are ethical risks around the recording and retention of children’s data. Data that is digitally captured and shared creates digital footprints for the children which can lead to subsequent tracing and analysis that may occur. We wonder how aware educators and families may be about this digital datafication and its potential uses?

We also wonder how the perspectives of the children may be incorporated within the digital capture of learning stories. Children can express opinions and perspectives when they are responding to their everyday lives (Nilsson et al., 2015). The ease of capturing multiple modes (through video, photographs, and audio) provides support for young children to focus their attention back to a lived experience enabling them to become an active participant as they share their account of what was happening. E-portfolios need to do more than store and share observations. There is potential for these tools to capture multiple perspectives to enable critical reflection on practice to inform subsequent planning for individuals and groups of children. However, for this to happen, curated information needs to be high quality, objective, and representative of perspectives from all key stakeholders.

5.5 Conclusion

This was an exploratory study of practices within two services, and we acknowledge that caution must be exercised in drawing any wider conclusions from the examples presented. The services that participated in our project were both acknowledged as exceeding through the National Quality Standards (ACECQA, 2017). These standards include reference to the use of digital technology for documentation and communication, recognising that collaborative relationships with families that are based on genuine partnership are essential. Platforms such as Storypark have the potential to share information about the service, encourage engagement with a range of activities within the service, and offer additional information and support to families. Critical, though, is that there are shared understandings among educators in a service about children's learning and approaches to curriculum and assessment. Given there is naturally variation in the resources and capabilities across different services, there may be barriers to implementation and good practices that our project has not surfaced.

While in this chapter, we have showcased the decisions these educators have made, we want to highlight too the importance of conversations about learning in what is captured and disseminated through e-portfolio platforms. There is a clear need for educators to think critically and creatively about any choice of assessment tool. Clearly, more research is needed that engages with a diversity of centres and educators and includes children, families and other members of a child's community who could be connected through online platforms such as Storypark. We also need to better understand how digital tools influence what 'counts' as a learning experience and how learning is reported to parents and carers to enable us to begin to explore how such technologies are influencing children's experiences of learning. Dialogue between and among educators, children and families enables negotiation, and exchange of ideas and joint decision-making. As e-portfolio platforms are increasingly adopted and their functionality extended, it is critical that all stakeholders are engaged in shaping how learning is supported, evidenced, and communicated in early years education.

References

- Australian Children's Education and Care Quality Authority (ACECQA). (2017). *Guide to the National Quality Standard*. Available URL: www.acecqa.gov.au
- Australian Children's Education and Care Quality Authority (ACECQA). (n.d.). *Guidelines for documenting children's learning*. Available URL: <https://www.acecqa.gov.au/sites/default/files/2018-01/GuidelinesForDocumentingChildrensLearning%20.pdf>
- Bagnato, S. J., Neisworth, J. T., & Pretti-Frontczak, K. (2014). *LINKing authentic assessment and early childhood intervention: Best measures for best practices*. Paul Brookes Publishing.
- Barassi, V. (2020). *Child, data, citizen: How tech companies are profiling us from before birth*. MIT Press.
- Carr, M. (2001). *Assessment in early childhood settings: Learning stories*. Paul Chapman.

- Carr, M., May, H., Podmore, V. N., Cubey, P., Hatherly, A., & Macartney, B. (2000). *Learning and teaching stories: Action research on evaluation in early childhood*. New Zealand Council for Educational Research.
- Carr, M., Lee, W., Ramsey, K., Parkinson, K., Priebs, N., & Brown, V. (2019). *Te Whāriki*, possibility thinking and learning stories: Tracking the progress. In A. Gunn, & J. Nuttall (Eds). *Weaving Te Whāriki : Aotearoa New Zealand's early childhood curriculum document in theory and practice* (3rd ed.). NZCER Press.
- Department of Education and Training. (2009). *Belonging, being & becoming—The early years learning framework for Australia*. Available URL: <https://www.dese.gov.au/national-quality-framework-early-childhood-education-and-care/resources/belonging-being-becoming-early-years-learning-framework-australia>
- Dockett, S., & Perry, B. (2016). Imagining children's strengths as they start school. In W. Parnell, & J. M. Iorio (Eds.), *Disrupting early childhood education research* (pp. 139–153). Routledge.
- Dunphy, E. (2010). Assessing early learning through formative assessment: Key issues and considerations. *Irish Educational Studies*, 29(1), 41–56.
- Fleer, M. (2010). *Early learning and development: Cultural-historical concepts in play*. Cambridge University Press.
- Gerber, M., Greenwald, D., & Weaver, J. (2013). *The RIE manual for parents and professionals* (2nd ed.). Resources for Infant Educators (RIE). ISBN 9781892560087.
- Harrison, L. J., Bull, R., Wong, S., Elwick, S., Davis, B., Kosourikhina, V., Spalding, N., Yeung, S., Cooke, M., & Luck, M. (2019). *NSE preschool assessment study: Review of formative assessment practices in early childhood settings*. Centre for Educational Statistics and Evaluation/The Early Childhood Education Directorate/NSW Department of Education.
- Higgins, A., & Cherrington, S. (2017). What's the story? Exploring parent–teacher communication through ePortfolios. *Australasian Journal of Early Childhood* 42(4):13–21. <https://doi.org/10.23965/AJEC.42.4.02>
- Hooker, T. (2017). Transforming teachers' formative assessment practices through ePortfolios. *Teaching and Teacher Education*, 67, 440–453. <https://doi.org/10.1016/j.tate.2017.07.004>
- Hooker, T. (2019). Using ePortfolios in early childhood education: Recalling, reconnecting, restarting and learning. *Journal of Early Childhood Research*, 17(4), 376–391. <https://doi.org/10.1177/1476718X19875778>
- Hope, K. (2017). Photographs—A window to take a look at children. *Every Child*, 23(1), 32–33.
- Jewitt, C. (ed.) (2009). *The Routledge handbook of multimodal analysis*. Routledge.
- Kervin, L., Mantei, J., & Lipscombe, K. (2015). The intricacies of classroom- based ethnography. In *SAGE research methods* (pp. 1–25). Sage.
- Kress, G. (2010). *Multimodality: A social semiotic approach to contemporary communication*. Routledge.
- Kress, G., & van Leeuwen, T. (2006). *Reading images: The grammar of visual design* (2nd ed.). Routledge.
- Lemke, J. L. (1987). Social semiotics and science education. *The American Journal of Semiotics*, 5(2), 217–232.
- Loggenberg, E. M. (2011). *Assessment in early childhood education in New Zealand*. Master of Educational Psychology Thesis, Massey University.
- Marte Meo International. (n.d.) Retrieved from <https://www.Martemeo.com/en/home/>
- Martin, S. (1999) *Take a look: Observation and portfolio assessment in early childhood* (2nd ed.). Addison-Wesley Publishing Company.
- Niles, A.J. (2016). *Complexities of assessment: Striving to get it 'right'*. Masters of Education Thesis, University of Canterbury.
- Nilsson, S., Björkman, B., Almqvist, A., Almqvist, L., Björk-Willén, P., Donohue, D., Enskär, K., Granlund, M., Huus, K., & Hvit, S. (2015). Children's voices—Differentiating a child perspective from a child's perspective. *Developmental Neurorehabilitation*, 18(3), 162–168. <https://doi.org/10.3109/17518423.2013.801529>

- Pacini-Ketchabaw, V., & Pence, A. (2011). The postmodern curriculum: Making space for historically and politically situated understandings. *Australasian Journal of Early Childhood*, 36(1), 4–8.
- Powell, B., Cooper, G., Hoffman, K., & Marvin, R. S. (2009). The circle of security. In C. H. Zeanah Jr. (Ed.), *Handbook of infant mental health* (pp. 450–467). The Guilford Press.
- Roberts-Holmes, G. (2015). The ‘datafication’ of early years pedagogy: ‘If the teaching is good, the data should be good and if there’s bad teaching, there is bad data.’ *Journal of Education Policy*, 30(3), 302–315. <https://doi.org/10.1080/02680939.2014.924561>
- Roth, J. H., Dadds, M. R., & McAloon, J. (2004). Evaluation of the puppet interview to measure young children’s self-reports of temperament. *Behaviour Change*, 21, 37–56.
- Stratigos, T., & Fenech, M. (2021). Early childhood education and care in the app generation: Digital documentation, assessment for learning and parent communication. *Australasian Journal of Early Childhood*, 46(1), 19–31. <https://doi.org/10.1177/1836939120979062>
- van Dijk, J. (2014). Datafication, dataism and dataveillance: Big data between scientific paradigm and ideology. *Surveillance & Society*, 12(2), 197–208.
- Wanoa, L., & Johnson, M. (2019). How the learning story framework can be enhanced to provide better assessment information to support planning for children’s further learning: A critique of the reliability and formative validity of learning stories in Aotearoa New Zealand. *The New Zealand Annual Review of Education*, 24, 90–104. <https://doi.org/10.26686/nzaroe.v24i0.6333>
- White, E. J., Rooney, T., Gunn, A. C., & Nuttall, J. (2021). Understanding how early childhood educators ‘see’ learning through digitally cast eyes: Some preliminary concepts concerning the use of digital documentation platforms. *Australasian Journal of Early Childhood*, 46(1), 6–18. <https://doi.org/10.1177/1836939120979066>

Professor Lisa Kerwin’s main research interests include: (1) children’s literacy practices, (2) how children use technology and understand digital literacies and (3) how teachers may be supported in using technology in classroom literacy experiences. She has published more than 80 journal articles and 40 book chapters and has been successful in gaining competitive internal and external research funding. She has been Chief Investigator on seven ARC Discovery grants (DP190101256, DP190101033, DP150101240, DP140100328, DP1093826, DP0984651 and DP0771675) and one Office of Learning and Teaching grant (2016–2018). Lisa directs Early Start Research at UOW.

Professor Sue Bennett’s area of expertise is in information and communication technologies in education. Her research investigates how people engage with technology in their everyday lives and in educational settings. She has extensive experience in the design, development and evaluation of multimedia and online instructional materials developed for both university and commercial clients.

Cathrine Neilsen-Hewett’s current research focusses on quality early childhood education and care (ECEC) environments, integrated service delivery and enhancing access to early childhood education and health services, particularly for those from vulnerable or disadvantaged backgrounds and those living in regional, rural or remote communities. Since joining Early Start at the University of Wollongong, she has taken a senior role in key, large-scale intervention and evaluation projects focusing on educator knowledge, practices and experience. Her contributions to early childhood at a national level have included participation in advisory committees, involvement in key longitudinal studies examining ECEC as well as involvement in the development of curriculum materials for pre-service early childhood teachers. Her research and publications in the area of early childhood development and education have made significant contribution to pre-service teacher education and policy development.