



Exploring the uses of digital technologies to build connections between families and schools as children transition to school and to maintain further parent partnership

Hazel Woodhouse
University of Waikato, New Zealand

Don Passey
Lancaster University, UK

John Anderson
Ulster University, UK

Research Report of Outcomes and Findings

September 2023

1. Introduction

The development of “educationally powerful connections and relationships” (Education Review Office, 2015, p.3) between schools and families has long been a focus for research in achieving positive social and educational outcomes for learners. Such relationships are defined by collaborative approaches to a common effort, reflected in the concept of mahi tahi¹, the idea of working together to achieve specific goals (ERO, 2015, p.5). While this theory sounds conceptually promising, the implementation of these ideas in practice is more complicated than schools may initially anticipate. To truly embrace a collaborative approach, schools may need to considerably alter their relationship with families to ensure they are forming a meaningful partnership with them, aimed at meeting specific needs in the child’s learning and development. In order to facilitate the development of these relationships, there has recently been an increase in schools’ uses of digital technologies and tools to forge communication links with families. This research explores how digital technologies are used by primary schools to develop connections that support families as their children transition to school. The research further seeks to investigate how digital technologies are used to maintain home-school connections and develop positive relationships.

School case studies, four in Northern Ireland, and four in New Zealand, taking evidence from purposively selected schools with nursery provision, have provided the context to enable a small-scale comparative study of how digital technologies enable the development of relationships between home and school over time.

2. Context and Significance of the Research

As part of the transition to school process, parents and children are required to make sense of their new school contexts and their roles and places within them (Dockett et al., 2017). As parents adapt to their new role and manage the changes associated with the responsibilities of supporting a child’s transition, research has called for schools to have a greater appreciation and understanding of the changes, which families are coping and adjusting to (Webb et al., 2017). Hill et al. (2017) warn that there is a danger that families may be “left behind in the transition process” (p.232), struggling to meet the school’s new expectations of them.

Developing positive and respectful connections between families and school has been highlighted in the literature as a major factor in supporting a family’s transition to school (Balduzzi et al., 2019; McIntyre et al., 2007). Through developing these connections, schools can foster a welcoming approach to families as they start school. Research that highlights innovative ideas using digital technologies to connect with families is generally focused on familiarising families with the new school environment. The literature is sparser on how digital technologies may be used by schools to develop positive relationships with families as they navigate the unfamiliar school environment. Research exploring the continuing use of digital technologies to connect and foster relationships between schools and families in the period after their child has transitioned to school is even less prevalent. Comparative case studies which focus on digital technologies that can be used to support transition and ongoing relationships is a gap in the literature. These gaps provide a rationale for this research. There is a considerable body of literature which focuses more broadly on developing positive home-school partnerships, including examples of case studies which highlight the role of digital technologies (see Chou, 2015; Wilder & Lillvest, 2014).

¹ Mahi tahi is a te reo Māori term that means to work together as one.

3. Research Questions

This study aimed to address four fundamental research questions:

1. To what extent are digital technologies being used by a school to develop supportive links with families in their transition to school?
2. Once families have started school, how do schools use digital technologies to maintain and build connections with their families?
3. What similarities and differences are there in how digital technologies are used by a sample of UK and NZ schools to develop home-school relationships?
4. What can we learn from the two cases about policy and practice?

4. Literature Review

Transitions involve a process, which can result in a life change or a definition of self over time, whereby an individual learns to adapt to certain conditions to enable their movement from one position or group to another. This research focuses on a transition as a movement from one context to another, specifically the movement between early childhood/years and primary school.

Transitional practices are two-fold; firstly, to develop a parent's knowledge of the school system and a familiarity of the school environment, and secondly to develop positive home school relationships. Reichmann et al. (2010) reinforce the importance of allowing time to develop a trustful and respectful relationship. The importance of developing and maintaining a two-way communication process between families and school to enable the sharing of information and to build connections is well documented in the literature (Chou, 2015; Dockett & Perry, 2007; Wilder & Lillvest, 2017). As the families settle into their new roles and new school community, a continued development of educational connections between families and schools needs to be maintained. These connections need to support reciprocal communication through informal and formal opportunities to build confidence and trust through respectful relationships (Reddy et al., 2013).

To be effective, communication needs to be flexible, with educational settings needing to promote opportunities to communicate with families and this involves seeking different innovative ways to communicate with families. Digital forms of communication are used by schools to provide families with information, updates about the class or school events. According to Kuusimäki (2019), "most parent-teacher communication nowadays takes place on digital platforms" (p.1). The use of digital technologies as a social practice may assist in the development of the relationship between families and school in a manner that fosters reciprocal expectations, involves parents with school and alleviates some of the communication challenges of time and distance that can be faced by teachers and families (Bull et al., 2008; Geser, 2004; Grant, 2011; Juniu, 2009). Examples in the research raise the concern that school communication to their families can be overly general and lack a personalised connection. In a study by Chou (2015), the more personalised the communication between home and school, the more uplifting and positive effect that this has on families and the building of relationships between home and school.

There is a lack of research concerning the use of digital technologies in facilitating and maintaining communication and developing relationships over time between families and schools during transition to school and how these connections are maintained after the children start school. These are underexplored areas which have scope for this further research.

5. Research Design, Methods and Schedule

This study fits within a qualitative design. Qualitative research continuously develops and evolves providing narratives and rich in-depth descriptions of meaning and experiences (Roulston et al., 2003). In conducting qualitative research, the researcher is part of the process for discovering meaning. As advised by Flick (2002), the researcher needs to have an appreciation of subjectivity and exercise the essentiality of reflexivity.

This research falls within an interpretive framework, which involves the analysis of socially meaningful action in order to interpret how people create and maintain their social worlds (Neuman, 1997). A definitive answer to the research questions cannot be expected to be found, only a thorough explanation of multiple perspectives of the phenomenon that focuses the research.

6. Case studies and a comparative approach

A combined case study and comparative approach is deemed to be the best fit for this research and comparisons are essential in establishing any “similarities and differences between two observed phenomena” (Berg-Schlosser, 2015, p.439). Case studies offer flexibility for explorative and theory building research that utilises narrative structures to immerse the reader in the discourse, but to also communicate the evidence necessary to articulate the argument (Stake, 1995). Standalone case studies can be powerful as they typically produce rich, qualitative data through the development of rich descriptions in how participants understand and frame their own experiences (Vavrus & Bartlett, 2023).

Interpretive case study methodology is ‘bounded’. Bounding the case defines the uniqueness of the phenomenon being studied (Stake, 1995). Bounding can be achieved through constructed research questions, the specific identification of context and timeframe. However, an interpretive case study of a single case may not readily connect with breadth, as the focus is placed on one case, rather than considering the “generalisation beyond” (Stake, 1994, p.236). In focusing only on the local, the opportunity to compare social structures and processes of another location may be missed (Vavrus & Bartlett, 2023). Comparative case studies may strengthen the “heuristic value” of individual cases by bringing in-depth understanding in different circumstances (Hamel et al., 1993, p.40).

Comparative approaches consist of two or more situations simultaneously deployed to address a research question (Mills, 2010). Comparative approaches of case studies can potentially be more powerful than a stand-alone case, as they allow researchers to gain a wider perspective about the context in which the research is undertaken (Yin, 2014). As with individual case studies, the comparative analysis of case studies is usually narrative, although some statistical or theoretical models are possible means of conceptualising research outcomes (Crowe et al., 2011).

Adopting similar methods that are common to a single case study, comparative approaches to case studies typically link a hypothesis to certain cases, gather information about the cases, develop evidence and present the cases, and construct an explanation or generalisation from the evidence. This study has gathered qualitative data to generate an in-depth understanding of the cases and case contexts, through appropriate methods. The proposed research investigates four school cases in each of two widely separated national locations, where each is focused around examining the features of instances of a specific and defined phenomenon. The case studies have been conducted separately by two researchers and then later compared. As cautioned by Yin (2014), when comparing case groups afterwards rather than continuously through the research period, there is the potential for minor differences in case methodologies, and this needs to be taken into account in the comparative analysis of the two sets of cases.

7. Methods

The exploratory comparative approach to case studies uses qualitative methods of data collection. The methods selected are document analysis and semi-structured interviews.

7.1 Document analysis

Document analysis is a form of qualitative research in which documents are interpreted by researchers to provide evidence and answer research questions (Bowen, 2009). According to O'Leary (2021), documents can be categorised into three main types: public records, personal records, and physical evidence.

The documents in this proposed research are all categorised as public records, as most information is accessible through open websites. School documents and policies can also be accessed by families who attend the school. A request can be made to view any school policies that provide more information on the school's use of digital technologies, to develop parent partnerships and transition to school information, along with the school's latest Education Review Office (ERO) report or alternative inspection report. The ERO/inspection report can provide an indication of how effective the school practices with their families are, as assessed by a government agency. In the Northern Ireland (NI) context, the school's latest Education and Training Inspectorate's inspection report can provide similar information to that provided in New Zealand by the EROs.

7.2 Semi-structured interviews

A semi-structured interview is generally used as an exploratory tool (Adams, 2015) and consists of a mix of pre-planned and spontaneously used questions. Semi-structured interviews provide for comparison between respondents to be made, but also allow flexibility so that themes can begin to emerge from the interview (Jamshed, 2014). The semi-structured interviews in this study were recorded, and an inductive analysis was used to draw out key factors.

The school principal's leadership holds some influence over the systems, routines and values which contribute to how a school will communicate and build relationships with families and the role that digital technologies can play in facilitating this process. A semi-structured interview with the school principal and/or lead teacher(s) concerned with pupil transition to the school, where guiding questions have been provided before the interview, have been used to gain insight into these aspects. If the school had a nominated staff member responsible for maintaining the school social media/website, their perspective was also explored where possible through a semi-structured interview.

7.3 Data analysis

A characteristic of case study research is the large amount of narrative data generated through multiple sources of evidence. Evidence can range from quantitative methods, such as questionnaires, and qualitative methods such as observation. Making sense and interpreting the various sources of data generated through the case study approach is not necessarily a linear process and may require repeated reviews of the generated data (Creswell, 2009). A predominance of data collected through this approach produces thick and descriptive data, which is mostly non-numerical.

8. Background to digital technology provision

8.1 Background to the managed service provision in Northern Ireland, what it covers and what it does not cover

In terms of digital technologies in education, Northern Ireland has a long and strong history (dating back to 1990) of supporting schools with digital technologies that can be used for teaching, learning, management, governance and professional development. Three managed service provision contracts have been in place since 1990 that have provided for these levels of support. With regard to the latest of those three contracts, as the Department of Education (DE) website² states in this respect: “The C2k project was established to procure the infrastructure and services necessary to support the enhanced use of information and communication technology (ICT) in schools in Northern Ireland... The C2k service provides every grant-aided school [virtually all schools] across Northern Ireland with a modern, connected ICT infrastructure. C2k’s education technology contract – education network for Northern Ireland - EN(ni) commenced on 1 April 2012 and will deliver Europe’s first education cloud environment to schools across Northern Ireland. EN(ni) is provided by Capita Managed IT Solutions (formerly Northgate Managed Services) and delivers the hardware and software required by schools, along with secure Internet access; increased bandwidth; a help desk and user support; and a new elearning platform called Fronter [although this is no longer in service and has been superseded by other learning platforms]. This service has been designed to create a dynamic, future proofed, flexible service which delivers increased access to a rich pool of learning resources. It supports collaboration between schools and helps develop skills which equip learners for the future. It gives teachers and pupils access to learning resources from across the world and brings these resources into the classroom. Access to the ‘digital classroom’ and its e-learning tools, lessons and resources is possible from any internet connected device, 24 hours a day - allowing teachers, pupils and parents to work in partnership to support learning. The communications and e-learning elements of the service support collaboration between schools and offer pupils a richer learning experience. Since 2000, DE has invested over £632 million in providing the ICT infrastructure in our schools through the Classroom 2000 [C2k] project making Northern Ireland a recognised leader in the use of ICT in education.” While the centrally-funded service provides a high level of service to all grant-aided schools, many schools augment the service, usually by purchasing additional devices and making one-to-one provision for pupils.

However, it should be noted that provision for nursery schools and classes has not been included in the current contract or indeed in either of the two previous contracts, although it will be provided for from 2024, when the next generation EdIS³ contract comes into play. This means that the NI findings of this study have relied heavily on the investment in digital technologies from individual nursery school and class budgets, rather than being centrally financed, coupled with the ingenuity, innovativeness and visionary approaches of principals and teachers who have been responsible for and involved in nursery-level education.

8.2 Background to digital technology provision in the New Zealand schools

In terms of digital technologies, funding for each state school in New Zealand is provided by the Ministry of Education annually through the school’s operational funding budget. Operational funding is the financial resources that are received by the school’s Board of Trustees, calculated by the Ministry of Education, based on each school’s July roll return for primary schooling years 1-8 and the school’s decile rating. More recently, the Ministry of Education (1st January 2023) replaced the decile

² <https://www.education-ni.gov.uk/articles/ict-schools#:~:text=Classroom%202000%20%28C2k%29%20The%20C2k%20project%20was%20established,Authority%20on%20behalf%20of%20the%20Department%20of%20Education>

³ <https://www.eani.org.uk/services/education-information-solutions-programme-edis>

rating system with a different funding methodology, termed 'equity funding'. Schools this year have transitioned into experiencing how this new methodology may have changed the amount of operational budget that each school has received. As part of their operating budget, and listed under the 'furniture and equipment funding grant', schools are then able to prioritise and allocate their budget to fit their own specific needs, which include their decisions for spending or improving digital technologies in school. In facilitating Internet access, schools can choose whether they want to use the Ministry of Education's Network for Learning (N4L) service or pay for a different retail service. The Ministry of Education has negotiated prices to support schools in purchasing software such as Apple, Google and Microsoft along with the procurement or lease of ICT equipment, available through the Ministry of Education. To support purchasing of ICT equipment, schools may ask parents and caregivers to donate a financial contribution at the start of the school year used to support the running of the school. In addition, a school's Parent Teacher Association can further fundraise to further support the school's targeted needs.

9. Background to admission to nursery and schools

9.1 In Northern Ireland

The Department of Education in Northern Ireland, through its Education Authority (EA) offers pre-school provision. As the website⁴ states: "Funded pre-school education is provided under the Pre-School Education Programme. This is a programme funded by the Department of Education (DE) with the aim to provide one year of non-compulsory pre-school education to every child in their immediate pre-school year whose family want it. It provides a rich variety of challenging play-based learning activities and other experiences in a stimulating environment and will help prepare your child for primary school." To apply for a place in nursery education, the website states that: "Parents can apply for funded pre-school education places online, through the Education Authority website which will be updated with information on the 2023/24 admissions process from 13 December 2022." The timing of the application process is also stated (in this case, for the 2023-2024 admissions year): "The Pre-School admissions process for the 2023/24 school year will commence at Noon on Tuesday 10 January 2023 with Stage one of the process closing at Noon on Friday 27 January 2023. An application received during this timeframe will be treated as 'punctual'. If received after Noon on Friday 27 January 2023 the application will be treated as target age 'late' in Stage 1; or underage late throughout the procedure. Following completion of the application parents were required to provide any documentation requested in support of their application before 4.00 pm on Tuesday 31 January 2023. Such documentation may include the child's birth certificate, or any other documents as requested in the published admissions criteria of the parent's nominated pre-school preference(s). It is possible to make a late application for a funded pre-school education place until 4 pm on 31 January 2023. However, applications for funded pre-school places received by the closing date and time (Noon 27 January 2023) will be considered first."

9.2 In New Zealand

There are a variety of early childhood services available to children and families in New Zealand. Among the services available are education and care settings, kindergartens, play centres, home-based settings, play groups, te Kōhanga Reo, Ngā Puna Kōhungahunga and Pacific Island Early Childhood groups. On average, 75% of all three-year olds and 84% of all four-year olds attend early childhood education (ECE) for at least 10 hours a week (Ministry of Education, 2019). Early childhood provision is not provided by a school. In New Zealand, although not compulsory until children are aged six years, school entry for most children begins when they turn five-years-old and are called New Entrants. This long-standing tradition in New Zealand contrasts with more commonly used

⁴ <https://www.education-ni.gov.uk/articles/applying-funded-pre-school-place-202324>

biannual entry found in OECD countries. Children in New Zealand mostly start school on or near to the date of their fifth birthday, where schools operate a continuous entry system. It is not uncommon that a child may be the only one starting school on a particular date.

More recently, some larger schools have begun to trial using a cohort entry system (Education Review Office, ERO, 2022) which in the New Zealand context involves children starting in one of the four terms in which they turn five-years old. Of the four schools that formed part of the New Zealand case study, two schools operated a continuous entry system, whilst two had shifted to cohort entry.

10. Background to the Selected Case Study Schools

10.1 In Northern Ireland

For this study, nursery provision was studied in four schools in Northern Ireland. These schools were purposely selected, on the basis of difference in geographical location, pupil entry numbers, but all with likely known uses of digital technologies. In the outline which follows, free school meals (FSM) is taken as a proxy of a relative measure of social deprivation. As the study sought to identify uses of digital technologies in nursery provision, this latter criterion was particularly important.

Throughout this report, the schools are identified by letter. An outline of the four schools⁵ follows:

- *School A*: is located in a rural area, with a wide catchment. It is a large Controlled school, with two nursery class enrolment of some 50+ children. Free school meals are below the Northern Ireland average⁶. The enrolment is mixed on a religious basis.
- *School B*: is approximately half the size of School A, and is located by a large market town, but with a wide catchment. It is a Controlled school, with a predominantly Protestant enrolment, with a single nursery class enrolment of some 25+ children. Free school meals are below the Northern Ireland average.
- *School C*: is located in a rural area. It is a small Grant Maintained Irish-medium school, with a single nursery class enrolment of some 25+ children. Free school meals are around the Northern Ireland average. The enrolment is predominantly Roman Catholic.
- *School D*: is a large inner-city school. It is a Maintained school, with two nursery class enrolment of some 50+ children. Free school meals are well above the Northern Ireland average. While the enrolment is largely Roman Catholic, the school is ethnically diverse, with a significant minority of children who are newcomers to Northern Ireland.

10.2 In New Zealand

Four schools located in the Hamilton and wider area of Waikato in the North Island of New Zealand were selected. All four schools catered for children aged 5-11 years old.

Decile ratings: In the New Zealand education system, decile is a key measure of socio-economic status used to target funding and support to schools. The ratings are 1-10, 10 being the lowest

⁵ Statistical details were drawn from the Department of Education's 'Schools Plus' statistical directory. <https://www.education-ni.gov.uk/services/schools-plus>

⁶ Details about free school meals in Northern Ireland were drawn from: Northern Ireland Research and Statistics Agency (2023). *School Meals in Northern Ireland: 2022-2023*. Department of Education: Belfast.

proportion of students from lower economic backgrounds that are provided for each school, along with a demographic break-down of numbers of children on roll. Two schools (Schools 3 and 4) were described as being 'country model'. Under section 193 of the Education and Training Act (2020), certain primary schools were designated as 'model' schools. These schools are specifically used for teacher training and in the past were usually associated with a teacher training college. Schools in New Zealand tend to operate in zones. Children who live in the school's area (the zone) are guaranteed a place at their local school. If the school has a specific number of allocated places, children who live outside the zone can apply for those places.

An outline of the four schools follows:

- *School 1*: is a small rural school in the wider Waikato (Matamata area), Decile 5 (83 children), with demographics: Māori 19%, NZ/European 51%, Filipino 9%, other 2%.
- *School 2*: is a large Decile 10 new-build urban primary school (2019) in an area of growing housing development in Hamilton, with 800+ students, with demographics: 17% Māori, 23% NZ/European, 18% Chinese, 15% Indian.
- *School 3*: is a country model school on the outskirts of Hamilton/Waikato, Decile 10 (465 students), with demographics: Māori 10%, NZ/European 81%, Asian 8%, other 1%.
- *School 4*: is a country model school with 147 students, Decile 7, with 17 Māori students and a small number of students from culturally diverse backgrounds. Half of the students are 'in-zone enrolments', while the other half are 'out of zone enrolments'.

11. Summary points

11.1 From the Northern Ireland case studies

Overall, all four schools showed how they had transformed elements of teaching, learning, assessment, management, governance and professional development through the uses of digital technologies in nursery education. This applied equally to their support and involvement with parents.

The transformation supported by digital technologies is summed up by this quote from the principal of School A:

"[it has] transformed us... being a paper free school in that regard... communication has definitely changed from lots of pages and newsletters and everything going home to being online"

The impact that this has had on the nursery engagement and partnership with parents is summed up by these quotes from principals and teachers:

"if you have good communication between families and school, you, as I say, you head off all those issues. All those problems that come down the line, and having that sort of that much more, that pastoral element probably, well it sets up for a much greater, a much better working relationship with parents, so it does." (School A)

"we're definitely engaged with more parents online than we have in person." (School B)

“The engagement has naturally become more positive. You know there was an element whereby before this, parental engagement with the school was negative. You know parents who only phoned up to the school office when there was a problem... whereas now we’re finding actually that our engagement generally is positive.” (School B)

“The use of these technologies allows for much greater freedom and flexibility and communication between ourselves at school and families at home by comparison to a phone call, for example where you may be calling at times that aren’t suitable, et cetera.” (School C)

“We used to be able to have parents contacting us and them initiating with us, but now it’s us to do the initiating” (School D)

11.2 From the New Zealand case studies

The impact that digital technology has had on supporting and integrating new families to become part of their new school community is highlighted by this quote from a school leader (School 1):

“If I want families to come and help at school you just put it on Facebook and you’ll get a reply almost immediately.”

Established parents use Facebook to build connections with new families:

“Our parents set up little messenger groups so that they can communicate with their child’s sport’s team, get involved in chicken and lamb placements, or manage the school shop or something like that. The parents use it to talk to each other as well.”

In terms of how technology has transformed how families learn about their child’s new school, the school leader from School 2 shared that:

“I think most people who are interested in coming here have already looked at our website or Facebook, or one or the other and I feel like that they are quite familiar with our school and our philosophy and who we are before starting”.

In showing how technologies supported schools during lockdown, the leader said:

“During COVID, Seesaw is what saved us”.

12. Findings from the study

The study asked 18 questions of principals and teachers. These 18 questions follow, with a summary of responses, supported by quotes from principals and teachers to illustrate the rich and wide practices that have been developed in these four schools in Northern Ireland and the four schools in New Zealand.

12.1 *Thinking about families who are transitioning to your school with children who are starting in nursery, reception or new entrants, when and how do you initiate communication (in general) with your transitioning families? For example, one term before they begin school, or a few weeks before their starting date?*

12.1.1 Findings from Northern Ireland schools

Families who have children moving into nursery or as new entrants need to apply to the Education Authority (EA) for a place in a school. A place for a child is confirmed in May each year, before the

child enters the school in September that year. Schools would normally start communicating with families of children coming into nursery or the school from that date, or earlier if parents/guardians are already known to the school (i.e., they have a child already in the school). Once a child has been confirmed by EA as having a place in a school, the school may send an e-mail to the parent. School A still likes to send a personal letter to a child and a parent whenever they get a place. School B encourages parents at that time to download the school app. In School C, their initial contact with prospective parents is in November, when they host an open night. When a child has been accepted, School C encourages parents to download their school app and to visit the school website. Parents are welcomed in an induction meeting in 4 (online during the Covid-19 pandemic, but face-to-face since then). School D organises an open day for parents, who may enquire about registering on the CCEA website. Parents are given access to the school's Seesaw site, where they can find information about entry and application.

12.1.2 Findings from New Zealand schools

All New Zealand families enrolling their child for school contact the school directly and follow the individual school's pre-enrolment procedure. The child is then added to the school pre-enrolment list. Most schools will then make contact with families 6-12 weeks before the child is due to start school. A school enrolment is not confirmed until the child has attended one full day at school. The child is then added to the school management system after their first official day. School 4 likes to make face-to-face contact with families, due to their small intake of children, which occurs on or near to their fifth birthday. With individual school starters, it is easy for them to track the new families. In School 2 all pre-enrolment and early communication is initiated by the school administrator using bulk email, 12 weeks before their cohort entry starting date. School 3 offers two dates for cohort entry, where families can select from either the first week of term or a mid-term start date in each of the school's four terms. School 3 tries to ensure that they contact all potential families who think their four-year-old child will be starting school soon. The local ECE providers have come together in the area around School 3 and maintain a 'cradle list'; an online list created by the agreement of the local ECE providers who add the children due to start school that year to the cradle list which schools can then access to check children living in their zone. School 3 then approaches families they might not have heard from via email to invite them to visit the school. At School 1, a number of students turn up on their child's fifth day with no communication. But generally, School 1 tries to map out who is starting and then emails each family one-to-two terms before the child's starting date, to book in as many visits as the child needs.

12.2 *How do technologies support initiation of contact with your new families?*

12.2.1 Findings from Northern Ireland schools

Different technologies are used by the nurseries and schools, but those in the case study sample all used Seesaw, together with email and a website. Once School A receives the EA list, they set up a Seesaw class, give out the Seesaw codes, and make sure that there is a welcome video accessible to them. Parents can access a tour of the classroom. The principal and the nursery teacher talk to the parents and start to build a relationship from that point. Each child is asked to send a picture of them doing something 'fun', again helping to set up a positive relationship with the child. All the children attend a visit day in 4, and a day or two before they are sent a picture of the classroom, so they can see that the classroom is ready for them. School B allocates Seesaw codes when they set up a new class for the nursery children. Before they start in September, the nursery teacher puts on a video tour of the school, something about herself and the nursery, photographs of activities within the school, and a few stories would be written and read out for the children, to help the children settle in. As April to September is quite a long time for a young child, the school establishes the link early, so that when the children arrive in September, they are familiar with the environment and people. This is found to help families where both parents are at work, and they are located quite a

long distance from the school. School C uses Google Classroom, ClassDojo and Seesaw as well as social media and traditional print media to advertise and publicise the admissions process which begins in January, making use of resources from the EA. Class Dojo is primarily used for communication. In School D, the children coming into nursery are divided into age-range groups, and an induction timetable is used bringing in the older group first, and then the others in succession. The induction timetable was translated into all the different languages that the children speak within the nursery as a first language. They paste, cut and paste into Google Translate so that parents can access the details, and they find this easier than having to use an interpreter. The school also uses visuals, to support parents before they come into nursery, to help them see what their children are expected to do.

12.2.2 Findings from New Zealand schools

All four schools used their Facebook page and emailed newsletters as a way to advertise and encourage families to enrol their children ahead of their fifth birthday. All four schools received a number of 'walk-in' or unplanned enrolments where children turned up to their local school on their fifth birthday ready to start school that day. These types of enrolments operate outside how schools would initiate prior contact with families. Three of the four case study schools preferred to contact the families by telephone to arrange to meet face-to-face for families to come into school and ask any questions or to support their enrolment process. For School 2, whose enrolment included 72 students (February-July 2023), their website is the place where new families are directed. The School 2 leader commented: "I think most people who are interested in coming here have already looked at our website or Facebook, or one or the other and I feel like that they are quite familiar our school and our philosophy and who we are before starting". School 2 has a very diverse roll; in directing new and potential parents to the website it provides opportunities for families to use Google Translate to support their interpretation of the online information. Similarly, School 1 found that parents accessed the school website before their child started school to seek out information. School Leader 1 more specifically found that "a lot of the new parents look [who looked] at our website first, more so than the old parents". Three of the four case study schools provided families with access codes to Seesaw after their child's first day, once they were fully enrolled and added on to the school management system. School 2 provided their parents with access codes to Hero. Hero represents a 'one stop shop' for School 2, where parents can contact their child's new teacher, locate further information and ask questions about homework and school. All four schools used these digital spaces to post videos and orientation information about either Seesaw or Hero, designed to support parents in their early days of their child starting school. The new class teacher which the child had been assigned to in School 2 checks which messages have been viewed and can then identify which families may not have logged on to Hero. The first few weeks were identified as being key for all four case study schools in making sure that all families could log into the school technologies. For School 1, new parents to the school were invited to join the schools' closed Facebook page, where parents could message and contact the teaching staff directly with any questions or queries. School 1 mainly used telephone calls, texts and Facebook messages to initiate contact with families. As a small school, with only an intake of around 10 new entrant students, (between February-July 2023), the School 1 leader found this a manageable way to build connections with families before their child started school. The School 3 leader preferred to telephone the new parents and then follow up with a copy of the school prospectus. School 3 emails a special letter to the children to invite them to the 'tupu' group [Tupu: a Māori term meaning little bugs]. The children are then placed into their 'tupu' group intake and are invited to attend 8 weekly sessions as a way to introduce them to school. The school had 41 children enrolled at the time of interview (February-July 2023). A member of the leadership team is assigned to each group, and so any further questions or queries from families are then emailed directly to the family's 'tupu' group leader. For all children in the four case study schools, they do not have to wait long to start school. Communication is initiated and continued by each school usually one term before the child is due to

start school (i.e., 12 weeks before). For School 4, 23 new entrant children were enrolled (February-July 2023). Their pre-start communication was through Seesaw and email. As the families are added to their child's class Seesaw, each teacher sends out their own class newsletter and introduces themselves by sharing an infographic about themselves with the children in their new class.

12.3 What different technologies (both hardware and software) do you use in communicating with your families?

12.3.1 Findings from Northern Ireland schools

The schools have found that families tend to use smartphones a great deal, and to communicate with them schools have set up Seesaw classes, which can enable single or group communication, via text, imagery or video. Additionally, schools use email and websites. School A has two separate nursery classes, with one group from 8:45 till 11:15 and another group from 12:20 to 14:50, so they have set up two separate Seesaw classes. They record videos that are posted on each of these sites, as well as using a website, Twitter, e-mail and a text messaging service. School B uses an app, but it is regarded largely as an administration app, giving information about what is coming up, school letters are put onto it, and it has a calendar function, so it supports the whole school community. When something is posted, it pings the parents' mobiles, so it gives them real-time information, and even though it is considered to be an impersonal means of communication, nevertheless it is important. The principal can send app messages and it also handles e-mail, so that anyone who has signed up their e-mail address can get e-mails that are posted on the app. The school has one family that does not access the app, so this family is sent paper copies as an alternative. Nursery class teachers in School C use the Seesaw app. Teachers connect families to the app at the start of the year and use it to send home messages, photographs, and videos of children playing during the day. Parents are encouraged to respond with a 'thumbs-up' or to send a message to show they can navigate the platform at that early stage. Early connections help to build parents' and guardians' confidence in using the technology throughout the year, as messages are frequently sent home solely on the app, and, more often than not, parents get to grips with the technology quite quickly and if there are any problems, the school has an open-door policy, so that parents and guardians can come into school and work with them on the issues they are facing. In terms of hardware, in School C, each teacher has access to a desktop computer and a teacher iPad, and they have recently been given a Microsoft Surface Pro laptop which has been used in school. Teachers use each of these technologies with a range of software, but mainly with Google Classroom, ClassDojo, Seesaw and the school website. Seesaw is the main software used in the nursery setting as well as ClassDojo. All other classes in the school have their own dedicated Google Classroom, primarily used for schoolwork and homework, but also for communication. ClassDojo is used from primary one to primary 7, primarily as a tool to aid in promotion of positive behaviour, but also as an effective and efficient means of communication with parents and guardians, as ClassDojo can give points to children based on positive behaviour aspects that are observed. Negative points can also be given, but the school, in line with its positive behaviour policy, tends to work with positive points. This system is open to parents and guardians, who can then see, for example, if their child was listening and received a point. At the end of the week, teachers have competitions to identify who is at the top of the class with regards to behaviour. But ClassDojo is also useful for communication, sending out a general message to parents. For example, "football is cancelled today, so children must be picked up at 3:00pm". It is possible to see who has viewed it, and who has not. Parents can give a 'like' or a 'thumbs-up', and they can communicate directly, for example, saying, "oh, I thought the child was in till four. I'm not gonna make it. Can they go to after school?" It also has a private messaging function if there is need to discuss something specific. In School D, Seesaw has been used for at least five years. The vast majority of communication to parents and guardians is done through Seesaw, all parents are signed up to it. Videos that are shown to parents at induction time have

associated QR codes, so that they can be accessed via the app on their mobiles. The QR codes are put online so that parents do not need to be in the nursery to access these.

12.3.2 Findings from New Zealand schools

All four schools used a range of digital communication tools with their families to regularly send the same forms of information to families, such as the weekly newsletter using at least three different methods - email, app-based communication or via their school website - to ensure that their family community received important messages. School 2 used two main digital tools: Hero and Facebook. Their student management system was Hero, which they used regularly during the term to share learning stories with families. Learning stories were a form of assessment and a way to share learning that uses photographs of the children interacting with various experiences, and an accompanying explanation is used to highlight the areas of the curriculum, school values and key competencies that the child is showing by being involved in that experience. Each week, School 2 posts a 'round up' of the week in photographs and videos that are posted on the school's public Facebook page. School 2 also sends a school newsletter that goes out 'two-weekly' and that is shared on Facebook, emailed out to each family and pushed out through Hero. Hero is a large part of how the school contacts individual families, whereas Facebook is used to communicate to the community. The School 1 leader texts and messages through their closed Facebook page, email, Seesaw and the School Loop app. Seesaw is used for junior school (years 1-3). School Loop is a cost-free administrative app available to all New Zealand schools, which can be used to push out notifications. School 1 reinforces that, in communicating with families, they will push out the same notification across different technologies to ensure that families receive them. In School 4, Seesaw was used as the main communication tool with parents. The school used Seesaw as a way to share whole school communication and notifications. Each class was set up as a 'group' on Seesaw and managed by the class teacher. Notifications could then be sent by the class teacher to the whole class. The whole school received push notifications sent from the office administrator on a weekly basis. These notifications tended to be around school events or the weekly newsletter. In sending out the weekly newsletter, School 4 used the school Facebook page, whole school Seesaw notification, email as well as a hard copy of the letter to a small number of families. Seesaw provides a private message facility for parents to get in touch directly with their teachers quickly and easily. Each week each class teacher posts photographs and videos onto their class Seesaw page of the children at school for the families to see: "it's a window into the classroom" (School 4 leader). School 3 uses Facebook as their public space and Seesaw as their private communication space. In addition, the school website and School Loop are both used as offering an additional way of sharing the weekly school newsletter with a copy also being shared on Facebook and Seesaw. Class teachers prefer using Seesaw, and having set up their class as a group on Seesaw, the class teachers use the app for one-to-one and whole group communication. All teachers organise an initial parent meeting after 4 weeks of the child attending school; teachers aim to have all families signed up to their Seesaw account before this meeting or may use this time to problem-solve and support the parent's engagement onto Seesaw. As the children reach years 4-6, the children can also communicate amongst themselves through Seesaw, which is carefully monitored by the class teachers. Administratively, School 3 tends to rely on email and the telephone. Sometimes the school uses Facetime if a parent cannot come in to meet them face-to-face. School 3 uses the text facility in School Loop only for communicating a message to all families for confirming absenteeism of a child with their families, but has found that their sent messages were not being received and that parents were reacting more efficiently to messages sent through Seesaw.

12.4 What influences your choice of technology (hardware and software) when communicating with families? Do you make considerations such as ease of use, saves time, accessibility to families, or whether parents have provided positive feedback that they feel this is an effective tool of communication, for example?

12.4.1 Findings from Northern Ireland schools

Accessibility in terms of communication and engagement with families is of major concern, so nurseries and schools tend to use software that promotes ease of use via mobile devices particularly. For this purpose, Seesaw, email and website communication is used regularly. In School A, it is “the immediacy of response or contact” that is important. As the principal said, “if I need to send a message immediately and I want it to go to a certain number of people or to the whole school, I would use a text message straight away because we find that parents never have phones out of their hands, and they get the text message”. When the schools send a letter, this is posted through Seesaw via the class teacher, but if it is for an entire year group or key stage, it would be sent as a text message, and sometimes put on the website also. It is possible through this system to see when parents have read a letter. Seesaw, the app used in this context, was integrally involved in moving online during the Covid-19 period. A half-day of training enabled the whole school to move online over a weekend. Although the principal considers that this facility “transformed us”, nevertheless the school size and required access could now mean that this would incur fees in the region of £3,500 to £5,000 for four years. School B also uses Seesaw as a messaging service. Parents can message the nursery teacher, but the nursery teacher can also send messages to each parent individually. In Seesaw, each child has their own journal where all their records are kept. Parents say they like the system, because “they can send me a message and I can get it when I come into school the next morning, whereas they may not have access to a phone, you know, during school hours... say something changes, if say a child gets picked up by another person, that would be something they would have to let us know... they can send me the message.” Because the nursery teacher was using Seesaw when the Covid-19 pandemic struck, the class was already set up to use it, so online access was very easy to achieve very quickly. However, the school recognises that the fees have been raised from some £400 to over £1,000, which is a factor that will be considered for future use. As a consequence of using the digital technologies, the nursery teacher has moved to a completely paperless system, where “I have a folder for each individual child and I keep everything in that folder. I keep right down to their payments, their attendance, their reports... And again, I'll pass that on.” Similarly, as the School C principal says, “The use of these technologies allows for much greater freedom and flexibility and communication between ourselves at school and families at home by comparison to a phone call, for example where you may be calling at times that aren't suitable, et cetera. So, we found it very useful in that regard... Normally the time, situation and context determine our choice of hardware technology when communicating with families. For example, if we're taking a group of children out for a football competition, teachers will have iPads to take photographs and videos and it may be easier to communicate directly via the iPad rather than transferring to a desktop and communicating the message that way. So, teachers would upload the photographs, videos directly from the iPad onto their ClassDojo... Similarly, when teachers are preparing homework and want to send a note home to families about an upcoming change in timetable, teachers will probably use the desktop and perhaps upload a message to the ClassDojo or Google Classroom. I find the interface for ClassDojo much more user-friendly for the purposes of sending and receiving messages such as this, as it allows us to see who has seen a message and parents can also very quickly send their own replies or give it thumbs up. I think parents seem to find this platform quite user-friendly. Also, Google Classroom is much more useful for uploading material and homework and keeping track of the work that pupils are doing both at home and at school.” The school recognises, however, that Google Classroom is an “all-encompassing suite which keeps all of the children's work together in their own folders, so scores and marks can be kept track of. It's great for assessment purposes.” In School D, rapid access to communications between teachers and

parents is regarded as a critical factor. As nursery teachers need to be with the children from 8:30 until 14:00, they cannot be out of the room, so if parents message them then they can see any important message, as most parents will have a smartphone which would give them access to Seesaw through the app.

12.4.2 Findings from New Zealand schools

Seesaw was described as the main “go-to” app for School 4 as it provides speed and accessibility that pushes notifications straight to parents’ telephones “so they can get the message straight away”. School Loop offers text notifications; however, the school has found that they “have not had much uptake” from families to download and use this app. School 3 also found similar experiences in using the School Loop app. When the school investigated this further, they found that parents had not downloaded or chose to use the app. The school themselves rarely chose to use School Loop to communicate and the parents had become adjusted to using Seesaw as a way of messaging the school, as shared by the School 3 leader: “It may be a good form of technology, but if we don’t use it very often then the parents won’t use it either”. School 4 uses Dojo as a reward system across the school to record class points. Facebook is used to post some photographs, but School 4 found it hard to gauge how much parents were engaging with the page. Whereas, on Seesaw, each class teacher can view who has seen the notices or parents who are not accessing the app: “we can easily see if parents are viewing a particular post”. Class teachers then get in touch to check that families are able to access Seesaw messages or for teachers to draw attention to postings on Seesaw. The school had invested in using Seesaw as their main form of communication and ensured that “we push it until we get everyone on”. Parents actively use the messaging facility in Seesaw knowing that they can communicate directly with their class teachers; teachers are more likely to receive a message from a parent via Seesaw: “they will message to say, like they want to catch up or something has happened or just leaving early today because there’s a dentist appointment”. During lockdown, the School 4 leader shared that: “See Saw is what saved us”. Zoom links were shared with families via Seesaw, “we could post work, they could post work back to us”. All online learning was done via Seesaw, and was an “easy platform to connect with our kids and our families, just such a one-stop shop”. School 1 is located in a rural location where Internet strength and accessibility causes problems for families. School 1 struggled during lockdown in facilitating online learning, and so focused on the idea that “parents always have a little bit of data on their phones, that’s why we do a lot of things which are very phone-based”. The other priority raised by School 1 was cost, which had a direct influence over their selection of technologies. This included using app-based technology such as the School Loop app that was used to send notifications out. School 1 used a closed-Facebook page and, again, this was free and accessible to families on their telephones. Facebook was “the ‘go-er’, if I want somebody to come and help you just put it on Facebook and you’ll get a reply almost immediately”. Class teachers at School 1 had been asked to set up a new Facebook profile (other than their own personal profile) on Facebook and then set up a class Facebook page with themselves as the administrators, which is in addition to the school’s own closed group school page. The class teachers all updated their own class pages and parents used the page to communicate with each other and with their class teacher. Seesaw was used in junior school as a way to showcase individual children’s learning. Previously, the school was using Blogger, which was a free application, but since the conditions of use for Blogger had changed, the school could no longer use this as their preferred way to share learning. With the cost increase to Seesaw, the school was unsure if they could continue to afford using Seesaw with their junior children. School 2 prioritises technology needs to be functional, easy to use, and accessible to everybody. School 2’s school community had over 50 ethnicities to send information to, which involved communicating with a range of diverse cultures and languages, and all messages and information needed to be accessible to all families. The school used only two systems, Facebook and Hero, so that in most situations families could click on a language translation function that would interpret the information for them into their first language. Manageability and efficiency of communication

systems for teachers to maintain was prioritised in School 3. The School 3 leader shared: “we are a big fan of the one stop shop where possible, because our brains are busy enough, so if we can have an integrated system, it makes how we engage with families more seamless”. For School 3, Seesaw was used to support several communication purposes. Seesaw was used to communicate one-to-one and in whole group communication, but although the School 3 leader found that Seesaw did work as a communication system, it still needed to be used “amongst a lot of email and phone”. If there were any issues for parents or teachers, “I always say to the teachers, pick up the phone and call the parent”. Seesaw worked best for School 3 as a way to share children’s learning with families. It offered a “personalised approach” and it’s also “very closed, so if I send a photo to the class it only goes to those parents”. However, there was a cost implication with Seesaw, and with a big price increase that year, it was not inexpensive. Schools 1, 3 and 4 all commented about the large price increase. For School 1, as a small rural school, the School 1 leader felt that Seesaw was no longer financially viable for the school to maintain, sharing that it would cost “\$2,500 for Seesaw across a small school!”. The school had previously covered the costs for the families’ access to the app. For School 3, they decided to charge the families for access to the Seesaw app. The School 4 leader commented that Seesaw was “going to price themselves out of the market. I know a lot of schools have given it up this year, because of the MASSIVE hike in price. It has been working so well for us, that’s a shame”. School 3 also found that Seesaw “works well for those who do sign up”. But some families had been confused and tried to log onto their child’s page, when they had been issued a parent’s account of their own.

12.5 What information and resources do you share with new families transitioning to school?

12.5.1 Findings from Northern Ireland schools

For new entrants, nurseries and schools provide orientation information and resources, as well as regular updates, opportunities for questions to be raised, and for sharing of details as they arise. In School A, they send out songs and rhymes about starting in the nursery class. All nursery teachers send out a Seesaw code so that parents can become part of the school class online with access to all the messages. A message can be individualised to a particular parent, so it can be “very individual as well as being group friendly.” All the school’s safeguarding policies and school routines are shared, “on paper to begin with, but then they would be shared online on our website.” A yearly information booklet goes out normally around 4, so that families receive a nursery and P1 pack, which includes holiday lists, an information booklet, a welcome video, and a tour of the classroom. Everything in this pack also goes on to Seesaw so that parents have a record of it if they lose the paper copy. Any questions that parents send are replied to in the first few weeks when the children are settling in, so a parent might be sent a picture at 9:00 of their child to show that they are settling in well, for example, so that they can see that all is fine. The system is also used to celebrate achievements, for example, someone who has made huge strides in PE. The parent can see a video of what the child has done, and this form of contact is maintained throughout the year. In the early weeks, a picture is sent home on Seesaw of their first day, showing the child playing for example. School A wants the parents to “build up trust with us. They know we’re communicating with them. They know they can ask us, you know, basic questions, simple questions, or you know, I’m a bit worried about this. Can I make an appointment and talk to you.” In School C, “we share all of the information that would be useful to families starting out... our mission statement, curriculum information, information on the school day, school uniform, the role of parents, how they can support their children, school policies, et cetera. As an Irish medium school, many of our children do come from homes with no Irish at home... we also provide families with help and guidance on how they can help their children learn and progress in the immersion setting without having the language themselves. But we also encourage parents and guardians to try to pick up a few words too, and point them in the direction of lessons and resources to help with this. We have a connection with the local Irish language group,

the Irish language officer, who runs adult Irish language classes... we would try to get things happening like... summer camps, play groups, toddler and mother groups, toddler and parent... And just recently we had an inter-Irish medium school quiz.” In School D, the Seesaw app shows the parents “this is information that we have in school, so rather than me photocopying this and giving everybody a huge pile of information... guidance and information guidance...”, they point access to the parents via the app.

12.5.2 Findings from New Zealand schools

All four schools shared a school prospectus both via email prior, and in hard copy, at the school’s first orientation meeting with families. The school prospectus outlined “the kind of the things that we do and how we do it” (School 1). All four schools also had a digital copy of their school prospectus available for families to download from the school websites. The prospectus shared information such as when school break times were scheduled and the school’s behaviour model. At School 4, administrative staff followed up the digital prospectus with an email to check if families had any questions or needed any further information. At School 2, families were sent again the digital link to the prospectus before their orientation meeting. At this meeting at school, the families had a tour of the school and then engaged in a Microsoft (MS) PowerPoint presentation all about the school. The families were then invited to attend two further sessions in their child’s new learning space, where again two further MS PowerPoint presentations were used to share information about the curriculum and about settling into school: “all the NE kinds of stuff that they need to know”. Then they could take home ‘a welcome to Pukeko guide’ (which was the name of the new entrant team), which they could refer to. In School 3, families were either emailed a digital folder and booklet or visited the school to collect a hard copy version of the documents.

12.6 Does your school have online information/resources purposed to support new families? If yes, when do you advise parents that this is available and direct them to the information/resources? What kind of information/resources are available online for families?

12.6.1 Findings from Northern Ireland schools

Parents are advised of information and resources when they have a place in the school, usually from May onwards. In School A, through access to resources on the Seesaw app, “Children now are very familiar with who their teacher is, they can play the video.” In School C, the principal says, “So we also try to provide parents and guardians with notes and guidance from teachers in the nursery and the foundation stage in general to inform families on what the children are learning, how certain words and phrases are said, and what strategies can be used at home to reinforce the learning that’s been happening at school... We keep copies of our school prospectus and our school open night information presentation on our website for families and that gets updated every year as and when... We also have a dedicated section of our website for school policies. We keep our school calendar up-to-date with reminders going out before events... Each class teacher has their own curriculum information presentation which is presented to parents and guardians early in the first term each year and again this is saved in its own dedicated area on our school website.” The school informs parents early in the school year that welcome presentations are uploaded onto the website, similar to induction meeting presentations, which “give information about curriculum, uniform, PE days, homework, ways to help at home, expectations, roles and responsibilities, et cetera. We keep these presentations online throughout the year, updated each year, also with any relevant changes, and we remind parents that they’re online a couple of times throughout the year. Sometimes as the year progresses, parents tend to forget about the healthy eating policy or the school uniform policy, so you do sometimes need to remind them.”

12.6.2 Findings from New Zealand schools

All four schools referred new families to their school website for further information about starting school where they shared information about their staff and their contact information, and links to school policies such as the school behaviour policy. School 1 shared a video of a virtual tour of their school as well as videos taken by the children to share about their 'Enviro-school' initiatives related to improving the gully around the school, which their family community could get involved in. School 1 shared the school's *karakia* (school prayer) so that the children could learn it before starting school. On using their school website, the School 1 leader felt that "we probably don't use it to a huge extent, because we use Facebook as well, and Facebook is where we can get a better parent response to what we share". School 4's website also promoted how new families could become involved in 'Enviro school' initiatives at their school. The school gully area for the forestry school was used regularly by the children as part of their local curriculum, which all new families were encouraged to participate in. The school's history was shared with new families so that they could develop a sense of connection with the school through the historical records and photographs which the website shared. School 2 used their school website extensively to provide information and resources to support new families. On the school website, there were fact sheets about restorative practice, learning through play, family development programmes, innovative learning environments and further information about the structured literacy taught in all of the classrooms and information on how the school reported to families. There was a specific section of the school website dedicated to families: 'whānau hub' (Te Reo Māori meaning whānau-family/extended family). In this section, new families could access information about 'out of school care', and apps for families. 'Apps for families' linked to more information about the school app Hero and Kindo. Kindo is an app that all four schools used for parents to make payments to schools. The Kindo app allowed families to access the 'shop' so that they could order school stationery ready for their child's first day at school. School 2 stated that: "with the school website having so much on there for families that I do feel that they have a pretty good insight into what we are all about before they start school".

12.7 How do you use technologies to support any new families' questions around transition?

12.7.1 Findings from Northern Ireland schools

Seesaw and email are used regularly to allow families to raise questions. Websites tend to be used to provide access to more policy-related resources, or to inform about events. In School B, as the principal says, "We use e-mail a lot, you know, and I've encouraged the teachers to use e-mail a lot with parents... So, a lot of the new parents would e-mail me prior to starting so there would be that initial that contact already in place too." If parents and guardians have questions around transition, they can get back to the principal via e-mail or the nursery teacher via Seesaw. In School C, "between the induction meeting in 4 and beginning school in September, parents and guardians are free to e-mail themselves to the principal or the school office with any questions they may have upon starting school in September. We encourage parents and guardians to make use of the digital platforms as soon as possible with any questions they may have, so we do want to get them into that routine of being able to use the likes of Seesaw and Google Classroom as soon as possible."

12.7.2 Findings from New Zealand schools

All four schools mainly used email to field parents' questions about starting school. At School 2 and School 3, new parent emails were usually directed to the school administrator, who would then answer the parents' questions directly. For School 1, being a much smaller school, emails were usually directed to the headteacher, particularly over the summer break: "Emails are huge, I get emailed all through Christmas or school holidays, because our emails are all on the website". Along with the headteacher's email address on the website is the school mobile number. Over the school holiday breaks the headteacher will respond to family questions about their child starting school via

text or telephone calls. Once the families are added to the school closed Facebook page, the headteacher would get messages through the page too. The headteacher in School 1 felt that this worked well for parents who had questions, “because they can come to me with a question and then come back to me if they need to again, and that’s really important for them to be able to do that”.

12.8 In a typical school week, using technologies, what information would be shared with families and how would it be shared?

12.8.1 Findings from Northern Ireland schools

In School A, the principal says that, “In a typical school week... newsletters would be shared, say immediate messages if needed, latest news would be shared on the website, a class’s homeworks through Seesaw. A lot of that would be ongoing throughout the week. Messages pertaining to selected children or groups of children within Seesaw or the whole class, and there would be parental correspondence there, back and forward.” There would also be collaboration with the partner school, so children would be involved in Google Classroom Meets or Google Classroom Forms slides. The school would also “post quite a bit on our social media. You know, routines, procedures, the classroom and school environment would be posted through Seesaw. That would also be available on our website and then Twitter would be used for things that are happening.” A newsletter is sent out at the start of the month, but each Friday, a summary of the week is sent out. For example, “we did dinosaur footprints. We did space art. Our word for the week, and how the children respond to this. What we’re going to do next week. So, parents feel that they’re involved.” In School B, the principal says “I get a lot of parents emailing me... Seems to be the way they communicate. We book clubs [online] and use EventBrite, and all of that has gone down so well with the Breakfast Club on Google Forms. We do change our buses for children going home later for clubs. That’s all done in Google Forms and spreadsheets... Everything is booked online, and it’s working and there’s been zero resistance.” The school says that they share “probably every day, at some point, one or two messages, you know something. Some part of housekeeping or whatever. Not on a weekly basis, but we do share policy consultations and things”. The nursery teacher says that, “every Friday afternoon, I would share what we’re doing the next week. I would also send any reminders that homework packs have to come back, what dinner money is... say you’re off the day next week, you know dinner money is £10 this week, [as well as] anything specific that’s happening that week... remember to bring something if it’s going to be cold outside. They you know just general information for the week ahead.” The nursery class uses a system where a group of children would be chosen each week. These ‘focus children’ would take photographs, of general things that they had done, so the parents know what is happening. In School C, the principal says that “Teachers and staff would use iPads, the new Surface Pro devices, to take photos of the work both for observation, evidence of learning purposes, but also to send home to parents via Seesaw in the nursery or via Google Classroom in primary one to keep them informed of learning and progress that’s taking place in class... The primary one teacher, the ICT coordinator, is developing a new system of recording observations using either OneNote or Google, so that rather than keeping cumbersome paper files, all observations and records on pupils will be saved and stored using cloud-based technology instead... We try not to use too much paper when communicating with parents so we do make very regular use of our school app and school website.” For School D, the nursery teacher said that “Primarily we used it for correspondence between ourselves and parents and information and that sort of thing. But also, as you can see, it’s used so the parent will see the picture of their child engaged in whatever activity they’re engaged in... We target specific children to make sure that we observe everybody because this is... our assessments of the children, so you can see there’s the photograph so this child would have been targeted for observation this week”. The nursery lead teacher has set up a system on Seesaw where “each folder corresponds to areas of the curriculum... So, engagement, language and literacy, numeracy, physical, PSA, the arts... if it’s say a

new topic that week, we would post links to YouTube or maybe an educational video... here are some stories that will help your child identify the numbers 1 and 5 or learn about counting from 1 to 5. So, there would be something every single week for engagement with parents”.

12.8.2 Findings from New Zealand schools

In terms of digital technologies, funding for each state school in New Zealand is provided by the Ministry of Education annually through the school’s operational funding budget. Operational funding is the financial resources that are received by the school’s Board of Trustees, calculated by the Ministry of Education, based on each school’s July roll return for primary schooling years 1-8 and the school’s decile rating. More recently, the Ministry of Education (1st January 2023) replaced the decile rating system with a different funding methodology, termed ‘equity funding’. Schools this year have transitioned into experiencing how this new methodology may have changed the amount of operational budget that each school has received. As part of their operating budget, and listed under the ‘furniture and equipment funding grant’, schools are then able to prioritise and allocate their budget to fit their own specific needs, which include their decisions for spending or improving digital technologies in school. In facilitating Internet access, schools can choose whether they want to use the Ministry of Education’s Network for Learning (N4L) service or pay for a different retail service. The Ministry of Education has negotiated prices to support schools in purchasing software such as Apple, Google and Microsoft along with the procurement or lease of ICT equipment, available through the Ministry of Education. To support purchasing of ICT equipment, schools may ask parents and caregivers to donate a financial contribution at the start of the school year used to support the running of the school. In addition, a school’s Parent Teacher Association can further fundraise to further support the school’s targeted needs.

12.9 Would you say that technologies are used mostly by the school to inform the whole school group or individual families?

12.9.1 Findings from Northern Ireland schools

Nurseries and schools use technologies to inform both individual families and a whole class. Some details go to individual families; for example, to reassure them about the wellbeing of their child, and how they are integrating socially into the class. But other messages go out to all families in the entire class, where the day’s learning activities can be illustrated, for example. In School A, the ICT co-ordinator says, “Our class pages on our website would also be a good way of the whole school community, showing the work of the children... Staff are very good at posting work so it’s available then for everyone to see as well.” In School B, a class teacher will identify ‘people of the week’ and will post achievements of the people of the week on Seesaw. Parents across the class are reported in this way to develop a sense of class community, congratulating other children and parents. As the principal says, “Sometimes I think there’s a feeling that parents are so obsessed with their own children that they don’t see others, but just to see that, you know... I think it’s people taking the time to encourage someone else’s child.” In School C, they “reduce paper letters going home to families, both as a measure to be more environmentally friendly, but also to help families in their management of calendars, events, messages. Digital communication is much easier to keep track of, as messages will remain on the school App and you can easily remind or point parents to them and the classroom platforms whereas, you know yourselves, paper letters and messages, they for the most part finish up at the bottom of the school bag and a lot of parents don’t actually see them. So even if they make it out of the school, haven’t been lost in transit, so that would be the biggest advantage... There are no excuses for not being aware of a communication. You know it can’t be eaten by the dog or it can’t be left at the bottom of the school bag... Children can’t come in and say, yeah, the dog ate my homework anymore.” In School D, there is “A group chat with all these potential parents... some of them first time applicants.” To register for a child place in nursery, parents need to do this online, and in the initial group chat there was a letter from the principal

which generated comments and questions. As the lead nursery teacher said, “a parent straightaway, can you tell me the documents I need to upload... That’s the link to it, and then the link will take you to that page.” In one case it was reported that a parent had hit an obstacle, but with the group chat “Another parent jumps in to help them.”

12.9.2 Findings from New Zealand schools

All four schools felt that they had a balance between individual and whole group and individual family communication with responsibility for individual family communication being mostly assigned to class teachers, and whole school communication tending to be circulated by the office administrator. In School 2, using the Hero app was found to be effective in pushing out a whole school notification, but tended to be used more for communicating between the class teacher and individual families. Facebook was rarely used for individual families as it was public; it is a place that reached the wider community as it was an open page. Any whole school communication such as the link to the school newsletter would then direct parents to a passworded access to Hero. School 1 communicated in class groups and in bulk using their school management system, where everyone’s emails were stored and could be accessed or filtered class by class. Bulk emails were sent out around once or twice a week. Individual communication tended to be by either text message, email or Facebook message.

12.10 Do you use technologies in supporting families as a group as well as individually?

12.10.1 Findings from Northern Ireland schools

In School D, “it’s a chat that’s open to all the parents, so they can see a parent saying ‘I’ve done this’. You can see another parent saying ‘I can’t do it’... We don’t have to step in there, and it’s developing that wee bit of interaction between parents before they even start... But any other comments that a parent will make to us will be one-to-one.” In another school, families are encouraged to support each other, such as when one family is not sure about the technical access they might have to certain resources. In School A, “We would have a lot of children who have older siblings in school and so we send the family codes so they’re able to look at their three children’s work in one app.” Where parents are separated, this can create questions and issues that have needed to be addressed by schools, so that rights of access are provided, but privacy of individual messages is also respected.

12.10.2 Findings from New Zealand schools

School 1 uses a closed group Facebook page for the whole school. The parents can engage with postings and use the private message facility. More specifically, both postings and messenger have been used by parents to encourage new families’ involvement with the school sports teams which are managed by parents. School sports is an area of school life where families work together to support sports teams: “weekend sport is a great way for new families to get to know the school community”. Encouraging parents to become involved, including “running the school shop for morning tea”, is also shared by a posting in Facebook where parents respond with a time that they can support. School 1 runs a chicken placement scheme as part of their local curriculum. As a rural school, School 1 uses Facebook to share community projects for families to get involved in. Similarly, School 4 operates a forestry school component as part of their local curriculum. This programme needs to be supported by parents in order for the children to be able to visit the local gully, because it involves leaving the school grounds. A generic form for parents that ask for basic information or for any help is pushed out on Seesaw on which the parents then respond directly back to the school. The public Facebook page is stated by the School 2 leader to be mostly updated weekly. Each week, after the weekly round-up has been shared, the photographs and videos shared about the children’s learning in school often receives parent feedback onto the postings. As the School 2 leader 2 shares: “they will often comment as individual families on different Facebook posts and sometimes they will

connect between the comments as well, so there is a little bit of interaction focused by the postings”.

12.11 Does your use of technologies enable families to connect with other families?

12.11.1 Findings from Northern Ireland schools

Schools are aware that parents and guardians can set up their own communication facilities. In School A, the ICT co-ordinator said that “I know that families within our classes will set up their own WhatsApp groups and that’s how they communicate, but it’s not something that we set up.” In School C, the principal said, “I don’t think we have any systems in place as a school so to speak with regard to families connecting with each other. But we’re of course aware that our parents have a parents’ support group... And they make fantastic use of social media and they have their own group chats, which they use for fundraising efforts and school initiatives... There’s a representative from every family in the school on that, unless they opt out, which doesn’t happen you know... Parents organise their own kind of group chats... I think they use WhatsApp for the likes of that. I know that these group chats can be used by parents to support each other.”

12.11.2 Findings from New Zealand schools

School 2 additionally facilitates a closed Facebook group to facilitate an inclusive learning page where specific families have been invited to join this group. This is managed by the School 2 leader and purposed for families that need some additional support with their child’s specific learning needs. The team leader in School 2 has found that the support for parents on the Facebook page does not just come from the school, but from the group of parents who have been invited to use the space to connect and support each other, using the Facebook page to “openly be talking in there as well” and “supporting each other”. At School 1, parents have set up their own messenger groups for their child’s sports teams so that they can communicate with each other’s sport’s team. The School 1 leader shared that “this has been really well used”. Facebook messenger has been very effective “so that the parents can use the school page and use it to talk to each other as well”.

12.12 Once a child has started school, how do you use technologies to support them feeling included in the new school community?

12.12.1 Findings from Northern Ireland schools

Class teachers regularly send out messages, images and videos to show how children are integrated into the class and in learning activities. In School A, the principal reports that “There would be a voice recording done and that I think is one of the most important, especially in the bottom end of the school where a child hears their teacher’s voice, you know that that’s extremely beneficial. Because they can’t read a comment, but they can listen to an audio comment.” The school also supports private messaging within Seesaw, sending out content and announcements to the whole class, as well as individual messages for celebrating a single child’s success and those to the whole class where the class is being celebrated. The nursery teacher sends “a monthly newsletter of the topic”. But, as the nursery teacher said, “you could easily have three different activities and you can differentiate them easily within Seesaw... so maybe like [P] is saying they can’t read just as well, you know they’re responding by using the functionality of recording their voice, but that’s done at differentiated levels and you can send those activities out to different groups and different individuals.” Specific uses of Seesaw have also led to wider school initiatives. For example, “we had a girl during lockdown, who had switched off school completely, couldn’t get her back and her grandmother said to me the only thing she’s interested in is photography, so every day she sent me photographs and of different things that she’d been doing, out walking with from parents... And then we introduced a photography competition to the whole school, and it brought that child back in again.” As the principal said, the use of Seesaw has opened up engagement to the point of access:

“Our parents opened their doors and their houses to us... And still continue to do so... We do news time on a Monday and the child sends a photo of something they did over the weekend so that they can talk about it... It shows that they do trust us.” In School B, parents are informed of individual work that children have done, as well as work that the class has done as a whole. For example, as the nursery teacher said, “we were out drawing the trees last week and I was able to send that to the whole group of parents and the children so the parents can see, you know, how the children are learning”. Seesaw also provides a messenger service “to inform the parents of nursery specific things you know, say homework packs come back this day.” Following an activity that is set, perhaps a recipe to make at home, children can then show their work by submitting photographs. In School C, the principal stresses that “Feeling included in the new community we make regular use of our various digital learning platforms, communication platforms to communicate with parents or with pupils and families right from the off when they join our school community. We use these technologies to communicate with parents and guardians on the settling-in activities that we do in those first days and weeks and this continues right through the year groups in the school not just with their new families and pupils. We exhibit pupil and class successes via our digital platforms on a weekly basis... we put a big emphasis on communicating success via our digital platforms on a weekly basis and families are encouraged to engage with these posts with their own comments.” The school is concerned with widening the diversity of success via digital platforms as much as possible: “so it’s not always the best speller or the best at maths... we’ve children going out for football competitions, hurling competitions... we have a group away today for a road safety quiz so we try to take part as much as possible and communicate.”

12.12.2 Findings from New Zealand schools

School 1 uses the Facebook group as a closed school community space. It is closed to those not part of the school to reassure parents that the images that are shared of the children are in a safe space. School 1 has had to work with their parent community in reassuring them that Facebook can be used as a private space. School 1 uses Facebook to put up photographs of assemblies or awards. A part of the Teacher Aides role at School 1 is to take some photographs about what is happening in their classroom or in the playground. They use a class iPad and upload the photographs to the class Facebook page and sometimes the whole school Facebook page. The School 1 leader ensures that she spends time outside at lunch and morning tea break times to take some photographs, “So when the kids are up in the trees or doing something, I’m snapping photos so the parents can see their kids throughout the day and they love that”. The School 2 leader prioritises almost daily opportunities to visit and take photographs of as many children and activities going on at the school to ensure all families get an opportunity “at least once a term to see their child” on their open Facebook page. In addition, “in the learning spaces the Kaiako [teachers] put up so many different photos and videos and postings up in Hero - the parents have lots of opportunities to see their child at school”. Parents often share stories and photographs of their own in School 2, “we invite them to bring in artefacts from home or from kindy (nursery) or any other evidence of experiences that are important to that child and that family. So those are displayed and shared on the class Hero page and in the classroom”. School 2 and School 4 both encourage families to share videos and photographs from home; in School 2 this is encouraged through Hero and in School 4 via the Seesaw private message facility. School 2 shared that “the parents might share a video, so at snack time they might have a video that someone has made on the weekend from being at Butterfly Creek or things like that”. Similarly, the class teachers in School 4 also receive videos from families, where “quite a few parents will share photos and little videos of what happens over the weekend that they want their children to share, during sharing time”, adding, “we get quite a few of those each week!” In School 3, the newsletter is the place for families to connect with what is happening in the school community. Every week the newsletter contains photographs of the children, sharing the school principal’s awards, where each week each class chooses one child to receive the principal’s award

based on the school vision. Tabloid sports results are often eagerly anticipated by families along with weekly sports team results.

12.13 What forms of two-way communication have you developed using technologies with your school families to support the building of parent-school partnership? What form of technology (hardware and software) do parents use to communicate to the school? To other families?

12.13.1 Findings from Northern Ireland schools

Building communication has supported engagement, but schools have also needed to find ways to enable wellbeing needs of teachers to be supported. In School A, the principal said that “I sent it out on nearly every letter that there is hours between which my staff are contactable and that anything urgent should be through the normal procedure, which is a phone call to the office... they can’t expect to send a note... a Seesaw message to say that [D] has to be picked up at such and such, because a member of staff is not looking at their Seesaw during teaching time.” The principal feels that “the experience and communicating digitally... has probably minimised an awful lot of problems that you could have further down the line”. In School B, the principal reflects that “School e-mail has been around for a long time, but I find this really the last couple of years that schools are starting to, you know, adopt it as a means to communicate with parents. I think generally there was a fear of parents emailing us, whereas I think we’ve embraced it. I mean it saves them a phone call... A phone call can last 15-20 minutes and it can be a very simple thing that can be, you know, answer an e-mail”. In terms of involving children in communication activity with parents, the school adopts a system with children who are paparazzi: “The paparazzi are two children who for that day have the iPads and their own Seesaw and they note everything that’s going on and it’s uploaded”. To monitor parental responses and comments, “we have to choose whether to accept or reject [messages sent by parents]... nothing posts automatically... You can turn that function off, but I would not have a function off”. In School C, “Chats going on are very common among the parents and parents normally use WhatsApp for these on their mobile phones. Regarding communication with the school, again, we encourage parents to use our digital learning communication platforms. Our parent support group also has a social media page on Facebook, which the school would at times use to publicise things among the wider community which can be shared publicly at our discretion, and which gives parents a chance to engage with and comment, though it’s a separate entity to the school”. In School D, records are kept in Seesaw so that they can be discussed with individual parents or guardians, which would include records of additional needs or concerns.

12.13.2 Findings from New Zealand schools

Providing families with a teacher’s own telephone number so that they can ring and text the teachers directly was a method of communication that was raised by School 4 and School 3. For both school leaders, they felt comfortable providing families with their telephone contact number. For the School 3 leader, she felt that it was important that she spent time “building relationships with families right at the start to develop that trust so that you can text parents and they can text you... If I felt that somebody was going to abuse that I would just push block sender”. When asked about classroom teachers contacting parents directly using their own telephone, the School 3 leader felt each teacher needed to make their own decision: “some people will just text parents, the teachers can use their own phones if they choose to do this, but they don’t have to”. For the School 4 leader, she felt that across their school that a number of teachers actively text parents using their own telephone, however, “this does depend on the teacher”. For the School 4 leader, “I’m happy for parents to text me, as so often I’m ringing parents on my phone which means that they end up with my phone number of course”. The School 4 leader added that, “with some parents I have had a long standing relationship, I will just text them and I know some of our other teachers have that as well”. The School 4 leader reiterates that when families start at their school that at all orientation meetings

the parents are asked to use the message facility in Seesaw as the school's preferred form of home-school communication in contact with any of the staff. In School 2, Hero is used to share learning stories with parents. Each learning story may be posted to an individual family or sometimes to a small group of families whose children all feature in the learning story images and description. The school provides access to Hero for all whānau (family/extended family) so all family members can comment on the Hero posting made by the class teacher, "and then the learning conversation can go back and forwards between school and family and between family members". In addition to their whānau hub on the school's website, School 2 have also established a whānau page in Hero. The whānau hub on the website "is more geared towards prospective parents". In Hero, the whānau page is a place where families can upload things that are important to them. So, for example, parents were asked to share their child's *pepeha* (a way of sharing who you are and where you are from). Parents are each emailed through Hero and asked to contribute. Once the parent has posted their child's *pepeha* on the page, the class teachers in the child's learning space respond positively to the posting and thank the parents for sharing. Other two-way forms of communication that are focused around developing home-school partnership exemplified by School 2 were "the day-to-day messages home, celebrations of the children's learning, letting families know things are going well at school".

12.14 How do you use technologies to develop a parent-partnership around the child/new child and their learning?

12.14.1 Findings from Northern Ireland schools

In School A, the principal reports that "Some teachers record their videos and explain everything and then they upload that as part of their Seesaw activity. So that might be the introduction to the lesson, the teaching part of it and then you can upload a piece of work for the children to do and you can ask them to respond in different ways, so it might be that you're asking them to send you an audio comment, or they could send you a video back, or it could be that they completed it online as an actual activity online, or some parents download that activity, they print it out, the child completes it on paper, and they upload a photo to us. So, there is the versatility there". In School B, the nursery teacher provided an example of how technologies were used to support partnership: "I was able to send the parents photographs throughout the day to say, you know, look, he's fine... you know by 10 past nine he's playing away with his friend... I found it a really good home-school communication device... for leaving the parents informed, letting them know what's happened and letting them see." The principal feels "that form for engagement, I think, has really changed the type of engagement we're getting... There's been more engagement because rather than lifting a phone, parents can send you a message or an e-mail. You know it's less hassle for the parents because they can do that at any stage rather than looking at the phone number, taking their time out of their day to go and make a phone call... I think we know them a lot better". In School C also "nursery school teachers often send pictures of the work of the pupils that the pupils have done via the Seesaw app and similarly in the foundation stage. Our teachers uploaded a lot of photos and videos of the work that children have done and parents again often engage". In School D, the lead nursery teacher feels that the digital technologies have changed the dynamic of communication: "We used to be able to have parents contacting us and them initiating with us, but now it's us to do the initiating, so not just any parent can contact you one-to-one. But they can when they do put a comment on their child's photograph... it's only them and us that can see it. No other parent... you can write the note to the parent and they can obviously respond whenever that your note goes out to them".

12.14.2 Findings from New Zealand schools

App-based technologies were used by all four schools to develop parent-partnership. Two aspects were identified that all four schools focused on in developing home-school engagement. Firstly, sharing posts about children's learning, and secondly, developing parents' own use of technology to

support them in contributing towards their child's own home learning. For School 4, Seesaw is used by class teachers to share both whole class learning experiences to the whole Seesaw class group, or to post individual photographs to a single child's digital journal on Seesaw. When the children first start school, the class teacher is responsible for uploading examples of the children's work. As the children are older and progress through the school, they have become more familiar with using Seesaw. The children are then able to upload their own digital material and share their learning onto their own digital journal. Parents are encouraged to share some of their experiences at home onto their child's journal, "so if they've done something, or been somewhere really cool and they want to share it, they log in, take a photo and post it themselves, and then we can post back that we have seen the post and engage with them about their experience". Additionally, homework tasks are posted on Seesaw: "We have pretty much moved away from paper notes and booklets to track homework tasks" (School 4 leader). In School 1, Seesaw is used in the junior school as a way to share what the children have been learning. Teacher assistants and older children regularly support the class teachers in the junior classes to enable the teacher to upload work on a frequent basis. Another way that technologies are used in the classroom to engage with families in School 2 is during scheduled whānau time at school. Both before and after school the class teachers set up digital displays on the screens in the learning spaces that share images, play videos and showcase the children's learning. "Families can then feel part of their child's learning and the celebrations of the children's learning, letting families know things are going well at school". "A child can then tell their parents more about what they are seeing on the screens". In supporting families in their own development to be able to use technologies as part of their child's home learning, School 1 hosts 'techy sessions' for the parents to learn about the Google Suite that is used extensively across the school for homework tasks. Parents are invited to come into school and the School 1 leader teaches them "how to access that sort of stuff and how they can respond and support their child". Schools 3 and 4 hold an initial parent session to introduce families to using Seesaw.

12.15 Thinking about when you use technologies for supporting a transitioning family, then thinking about how you use technologies with families once they have started school, what would you say are the differences and why?

12.15.1 Findings from Northern Ireland schools

Supporting family and guardian engagement with schools is affected by levels and capacities of digital technologies. As the principal in School A stated, "we do our interviews face-to-face because we feel that's important, but we offer telephone as well, because that's how they would have been conducted during COVID, would have been telephone-based interviews. We haven't gone to the SoundCloud or whatever yet. Not saying that we won't, but my fear with it is we have not yet been transformed with the superfast wireless... whenever we tried to do Zoom assemblies, it was an absolute disaster... I could imagine the whole school going online for SoundCloud for interviews and somebody dropping off. So, at the minute we offer both." In School B, the nursery teacher emphasised how future teachers were involved: "Also whenever it comes to sort of May/4 time, I'll add [P1 teacher] in so she can get a flavour of what we're doing towards the end of the year. And it also means that she can comment on the children's work... So, it's the same way as they were coming to nursery. They all get to know her face and they'll get to know her as well and the parents the same". Records from Seesaw are transferred to the next class: "We'll transition my Seesaw, go straight to P1 [teacher], so then she'll take me off... So, the record of the children's work will be there." Ease of referring back through the records was also emphasised: "Also, there's a record of the children's progress from when they come in... You can scroll through very easily back and see their transition journey right through nursery and then they'll do the same as it transitioned into P2 for the P2 teacher. So, it works and we go on up through the early years." In School C, the principal reported use of multiple communications mechanisms with parents: "again, in those initial stages, we'd mostly use e-mail and telephone communications, as well as pointing them to our school

website to induction presentations to policies, et cetera. Then when pupils begin with us, we try to immediately encourage families to download our school app for notifications. We get pupils registered for the digital platforms within the first few days, so the parents and guardians are seeing all the relevant material that they should and so that the children are able to engage with the learning material that they should be able to". In School D, the lead nursery teacher indicated how an end-of-year report is shared with parents: "Well, at the end of the year, we record it on a transition profile, which is all of the skills, so that's recorded in an actual document that's shared with the parents... This is our format. You can see the skills here. It's got the skills listed and the red amber, green code against each skill and additional text describing the level of skill for that child... That's a lengthy document because you're covering each share of the curriculum in detail."

12.15.2 Findings from New Zealand schools

All four schools signalled that they had recommended the school website to new families before a child started school. The school website was described by School 1 as a place where documents and information that were more pertinent to familiarising and orienting new families with school policies, routines and processes. For School 2, the school website was a place where orientation information could be archived and returned to. All four schools signalled a shift to app-based technology once a child had started school, which allowed for more frequent messaging and a way for class teachers to share learning. For the School 1 leader, she indicated that the amount of emails that she would receive once new families started school would "die down, because the parents don't need to ask all those questions", and that once the parents had accepted the link emailed to them to join the school Facebook page then most parent-teacher correspondence was through Facebook and Facebook messenger. The purpose of Facebook for School 1 and School 4 was still about sharing information, but more about sharing classroom updates and moments of the individual child's learning. School 1 reported to parents three times a year via an email and two times a year in person. Information was provided about how each child was performing against the school benchmarks in the middle and end of the school year, so that parents could track their child's progress. For School 2, once a child had started school, then the families were granted access to Hero. Facebook had always been an option for families to gain insights and updates about school, with this being an open public page and families continuing to keep up-to-date using Facebook. The difference identified by the School 2 leader was that once the children started school, their parents began to receive regular learning stories' updates through Hero. "Hero is how we ensure that we contact all individual families". All class teachers are asked to monitor if families are not engaging with the app, and to be proactive and get in touch with families in case they need support, or are not sure what their role is in using the app. For both Schools 4 and 3, an increased engagement with families' Seesaw is signalled after the children have started school, with Seesaw then becoming the preferred way for families to contact their child's teacher.

12.16 Have you recently reviewed your use of technologies in communicating with your families?

12.16.1 Findings from Northern Ireland schools

The nurseries and schools regularly monitor and review forms of digital technologies that they might possibly use and how those they have are working. Feedback from parents is also considered carefully, and any issues are explored and dealt with where possible. As the principal of School A said: "I did a parental questionnaire there for school development planning, which was in May of last year for the next three years cycle". But in terms of reviewing technologies, the principal indicated some key factors that come into play: "I suppose we are probably at a crossroads in terms of our Seesaw provision and where we are going to go with that. If I can't find a free package... If I don't think that that is going to be viable and be right for us the school [we] will go into a pay package simply because I don't want to lose what we have already... I don't feel there's anything out there at

the minute that is doing the job as well, and we'll make sacrifices somewhere else". For the school website, viewer numbers and hits are monitored, and social media are monitored too. But for Google Classroom, the principal said that "at this moment in time, I am extremely happy with, and I think that has allowed us to branch out into sharing both in terms of teachers' professional development as well as for our pupils. It has allowed us, because we are using it as a platform for shared education and for learning, you know, a learning community... It has worked really, really well... We are probably moving into a greater or a larger learning community... I think there are huge opportunities through Google Classroom to expand that... within the next year or two. I think that's probably the route that we're going". In School B, reviewing access in the context of teacher wellbeing is an ongoing review. As the principal said, "I think COVID was a problem... but that was a very different time that was a very specific set of circumstances, but it blurred the lines... I was in here all day and I was doing my work with one of my children with me. But then I was going home to all the parents who were then sending me work at 5, 6, 7 o'clock at night. And if I didn't start at that stage, I was coming in the next morning to deal with maybe 40 or 50 requests that the parents send... I don't think it is a black and white... striking that balance is difficult". In School C, the use of online digital technologies has continued to be reviewed: "we already had used and become familiar with Google Classroom as an educational tool pre-pandemic. But during and since COVID-19, every single class used Google Classroom and some Class Dojo. On a full-time basis, we felt that we didn't want to cut the progress that had been made in establishing very effective uses of technology to communicate and share resources home and, as practitioners, we're constantly reviewing how we work and at present we feel we have struck a manageable and effective balance for our school community, and I think I would echo those comments. What we're doing seems to be working very well. And we're always open to change. We're certainly open to new initiatives, but what we have at the minute we're very happy with". In a similar way, in School D, the lead nursery teacher has been reviewing other digital technologies for future use: "I was looking at OneNote... I could maybe adapt that to collate information." Overall, the lead nursery teacher said "So this has been organic this innovation".

12.16.2 Findings from New Zealand schools

Experiences vary across the four case study schools as to whether they had reviewed their use of technologies. For School 2, which is a newly opened school, they signed up to use Hero when the school was first established. The School 2 leader was able to see the effectiveness of using Facebook as a community page. As the administrator of the page, she had access to viewed postings and reactions from the community to the posts. "The Facebook page is very popular, there is always a surge in views once the weekly round up has been added". The big change that had impacted on School 2 in terms of children starting school had been their movement towards cohort entry. By having a specific intake date once a term, the School 2 leader found that cohort entry "has made contacting families to start school much easier". School 1 had been put in the position where technologies had either increased in price or changed their conditions. Prior to using Seesaw, 'Blogger' was the preferred digital tool used to share children's learning across the school and in classrooms in School 1. The advantage to Blogger was that it was a free application, but due to its conditions being changed it was no longer an option. The School 1 leader shared: "but now Blogger is R18 and we can't use it. We absolutely loved it; you know you could add anything and email and it went straight on the blog". In moving forward, the price increase to Seesaw had hit School 1 hard, and they were unsure whether they could afford to continue using Seesaw. The school was seeking to find a new cost-effective digital platform where individual classes and individual children's learning could be shared with families. Cost implications for maintaining Seesaw had also prompted School 1 to review and urgently seek out new systems to fulfil their needs: "\$2,500 for Seesaw across a small school! It's causing a lot of talk, we have to find something that's an alternative where we can have individuals and classes, all accessible by password for each family - we want every parent to be able to see their child's learning" (School 4 leader). School 4 had not conducted a

formal review but “it’s something we talk about”. A frustration that School 4 had, which trying different technologies had yet to solve, was around parents’ lack of participation and engagement: “We have a core of parents that it doesn’t seem to matter what you do, or what tool we use, they are still not going to read the newsletters, they are not checking emails, and you’re always asking yourself, ‘how can we reach these parents?’” Geographically, School 4 is located on a highway and so the majority of families collect their child in person straight from school or at after-school care. “At around home time I’ll just be in the office and they’ll be around which makes it really convenient for us to keep in close contact with them”. The school’s student management system was becoming increasingly redundant in its use in School 4; the School 4 leader shared that “it’s good only for easy finding of parent and children information such as contacts and emails”. The school management system also facilitated “a really good app on our phone, so if we need to find out information about a child we can do it really quickly and easily”. However, the school management system was not fulfilling the school’s reporting needs, and in moving forward, the School 4 leader was seeking to shift their reporting systems to parents from hard copy to digital and this would involve a move to a new student management system that could facilitate this for them. School 4 had been impressed with the facilities that Hero provided, but reiterated that “it’s hard finding the right system that’s going to do everything that you want it to do”. School 3 had been exploring the possibility of moving from using several different technologies towards an integrated system. The school wanted to use app-based technology to meet their community’s needs of accessing contact with school via their telephones. School 3 had begun to trial using Edge. “So I’m trying it out first with a teacher who has two girls here so we can get some feedback about how a parent may find the app”. The School 3 leader and the parent-teacher had been exploring the possibilities of the Edge app over two terms (around 6 months). The Edge app sends an email notification to parents when a message or posting relating to their child has been updated. It stores school reports for families in PDFs and families can then review the previous school report to check their child’s progress. The School 3 leader thought this was an important benefit to have as “parents often lose the reports so that they can access it any time”. The Edge app allows each class teacher to take class attendance, and this information is then sent straight through to the class page, saving administrative staff time collating the information when needed each term. A further benefit that School 3 had found with this app was that instead of relying on the Kindo app (previously used by the school for school purchases), the school could set up the “shop” function in Edge for families to be able to purchase stationery and uniforms using their credit cards. The School 3 leader shared that: “This will support administrative staff hugely at the start of each school year and save so much time!”. The School 3 leader had invested time exploring the possibilities of the app, “little by little we try another function that [the app] can provide and see what it can do”. With the app being new to many New Zealand schools, School 3 had not been able to gain much feedback from other school experiences. “If this is going to work for us, or not, I am still deciding, but if we are going to do it, I think we will do it well. And this app offers more in one place than ever before for us.” A big advantage to moving to using Edge for School 3 would be the financial savings of being able to stop subscriptions to other technologies that the school feels are no longer effective. “We have just got rid of another piece of technology which was costing us over \$300 a year which was the emergency notification one.” This previous technology was used to send an emergency notification text directly to parents’ telephones. The school had cause to use this notification system earlier in the year when the school needed to send an urgent message warning families that the “Cyclone has arrived. There’s a tree down on the school access road, we can’t let the buses go”. In reviewing their response process to the school emergency, the school found that the office administrator had spent considerable time creating small ‘text groups’ to be able to send the text out to the families, as there was a limit to the number of texts that could be messaged. In addition, the format of the emergency text notification was ‘a no-reply text’, which caused further concerns for families and the school. Since exploring the Edge app, School 3 has worked out that Edge can be used to send an emergency message out to all

families in one message, as their details are already stored in Edge and the app facilitates large group text messages that families and the school are enabled to reply to.

12.17 What did you identify that was working well?

12.17.1 Findings from Northern Ireland schools

All nursery classes in the schools identified digital technologies that were working well for them. In School A, the principal said that: “We looked at our communication via Twitter, via a website, and via Seesaw. You know the response has been overwhelmingly positive”. In School B, the principal reports that the school has “maintained having our interviews online so we haven’t done face-to-face at all, and I think that’s the way we’re going to keep it, and certainly the feeling with the staff... Only had one parent who has said that they preferred the face-to-face, so it’s pretty good feedback... within C2K there’s Google Meet and there’s Google Calendar you know so we’ve been able to set up an appointment schedule for nursery. [The teacher] inputted her times into the calendar we set them up as 15-minute meetings sent the link out and everyone has signed up, so everyone has now signed up for their meeting, which is then an automatic Google Meet meeting at the time”. In School C, the principal said that “we feel parents and pupils enjoy receiving homework tasks via our online platform as it enables teachers to link websites, et cetera, to assignments easily. Very importantly for our context, as an immersion education setting, teachers are able to attach and send home links to verbal instructions, poems, songs and other audio materials to scaffold, support learning at home. Having all pupils engaged and logged onto Google Classroom and Seesaw enables us to do this”. In School D, the lead nursery teacher reported that “you’re not jumping around from application to application or products... this is making all of that process easier... in order to be able to look at both individuals and the group in terms of your wider and longer-term planning, but also making it easier in terms of making that accessible to parents”.

12.17.2 Findings from New Zealand schools

During lockdown, all four schools tried using different technologies. Their experiences of teaching online helped schools to find which technologies were effective for teaching and learning for their school and community. School 4 found using Zoom ‘live’ tricky for the younger children who had just started school. Classroom teachers found that pre-recording Zoom videos and posting them onto Seesaw worked really effectively for their families. This was a practice which the class teachers continued when setting homework tasks for their junior classes each week. School 4 found that Seesaw was an effective platform that hosted a range of different technologies that could then be accessed by families. In moving forward, “If we need to go back to hybrid learning we have done it now, we know what we are doing and what works for our school”. For School 2, Hero had been their most effective technology, “it’s just really user friendly, simple to use, it’s bright and colourful and engaging”. Uploading material to the site had proven easy and manageable for class teachers and families, and as part of her responsibilities, the School 2 leader felt it was relatively simple to keep the site updated. School 2 found the uptake from parents to be excellent, and it facilitated two-way communication between home and school effectively. “There’s the win-win from home and us being able to use it together and it has helped to develop sort of back-and-forth exchanges between home and school - so that one is a fantastic system for us!” Parents liked the notification alert that Hero sent to their email, regardless of how often they might engage with Hero they would still receive the alert notification. For School 2, many of their families use English as a second language. For families who needed it, there was a translation function available to them. The other technology that was working well for School 2 was Facebook, for which the School 2 leader said, “every week is getting a lot of hits each time we post”. For School 1, Facebook had proven to be a great way of sharing learning and updates about school. Google Suite offered School 1 a range of technologies which they had found to be effective. During lockdown, School 1 opted to use Google Meets over Zoom due to this being cost-free with no restrictions. The class teachers at School 3 embraced using Seesaw to

share children's learning. School 3 also discovered during lockdown that they could open a facility for the children to communicate amongst themselves through Seesaw. The teachers and parents helped their children to share work and then used this facility to provide peer feedback. The teachers continued to use this facility for children to engage in self- and peer-assessment.

12.18 What changes did you make and why?

12.18.1 Findings from Northern Ireland schools

Different schools focused on changes that were important for them at specific points in time. In School A, the principal says that for digital technology changes, "that would be a May and 4 training for staff so that I still have an online presence with parents come August". In School B, the principal indicates that communication with parents is a factor that needs to be considered, and "the next is to look at the online payments... Nobody has cash. You know we're used to paying for everything you know online". Additionally, "using technology in school to improve teaching and learning to improve administration to improve communication. That's my interest... we are constantly looking at, I'm constantly looking at, everything we have done. We're tightening up on it. You know, so moving to Microsoft Teams for our parent interviews. And I'm looking at that and saying OK we can do it that way, but we can do it better. We can do it better through appointment scheduler and Google, you know... I think I'm probably constantly evaluating and critiquing what I'm doing. You know, I'm asking people for feedback. You know getting feedback from your parents to tell me what they're saying". In School C, the principal says that "We're always open to new and different approaches when it comes to technology and communication. As I've said also, we like the systems we have in place, but even just this year we're bringing in the use of a new app. I mentioned it earlier called Safer Schools... we feel it's best to stick with what's working well with our school community. However, we're looking forward to rolling out this new app... And we will monitor engagement and use among families to see if we should expand on its use. Initially we plan to use this new app to help educate and inform parents and guardians on Internet safety and safe use of technology. A lovely thing about this new app is that there are quizzes and tests that we will be able to assign to families after reading material, so hopefully this will encourage greater engagement among our families, especially on such an important issue".

12.18.2 Findings from New Zealand schools

Some changes resulted from the review of each school's use of technologies. For School 1 and School 4, changes had been enforced on them due to cost increases. School 4 was hesitant about the Seesaw site not being a New Zealand-based site. However, the price quote from Seesaw prompted School 4 to contact Seesaw directly and query, "Is that a different platform?... Could we go back to the one that we were using last year?... Has this one got extra stuff?". School 4 and School 1 subsidised their families' yearly subscription of Seesaw. For School 1, the school paid each families' full subscription; for School 4, the school "pays most, but asks for a small contribution from the families". For small, rural schools such as School 1 and School 4, cost is a big decider in their review of their technologies. "We don't get very much funding, so that sort of stuff sort of comes out of our grant. The cost of it will have a big impact - we don't want to have to give it up, but at the same time, there is only so much money to go around." For School 3, their focus was on moving forward with their roll-out of the Edge app across the school community, and to focus on updating their school website. The School 3 leader indicated that the school website was the "first port of call for new families thinking about coming to our school". The content on their site was updated regularly, but the site "really needs some modernising, it's not the best, it's not the content, it's just the layout, it's just a bit clunky, not clunky, maybe not as smooth as it could be".

13. Comparative analysis

In this section, we draw out some comparisons and distinctive aspects across the two sets of cases. Initially, we draw out some summary points, and then use the questions that were asked of the key interviewees to structure high-level comparisons between NZ and NI. In each case, a table is used to show the comparisons (Tables 1 to 19).

13.1 Summary Points

The use of digital technologies is making an impact in both NZ and NI case schools. In some cases, the impact is transformative, across the work of the school, including their parental partnerships.

Table 1: Summary points comparing NZ and NI

New Zealand	Northern Ireland (UK)
Evidence indicates that parents seek information about the school online and are responsive to messages from the school.	There is evidence of a fundamental change in relationship to a more constructive, mutual linkage, rather than families only contacting the school when there is a problem.

13.2 Comparisons structured by interview questions

13.2.1 Thinking about families who are transitioning to your school with children who are starting in nursery, reception or new entrants, when and how do you initiate communication (in general) with your transitioning families? For example, one term before they begin school, or a few weeks before their starting date.

In both NZ and NI, online communications were used in advance of enrolment and attendance, often complementing initial written correspondence.

Table 2: Comparisons for Question 1

New Zealand	Northern Ireland (UK)
Initial contact can be made, usually by bulk emails, up to three months in advance of attendance, but children are only enrolled, and parents added to the management information system, after their first day of formal attendance. One school is seeking to extend this period up to two terms in advance.	Outreach to families starts up to five months in advance of attendance through a combination of letters and online communications. An early start is made in helping parents register and start to use a variety of online communications for induction support.

13.2.2 How do technologies support initiation of contact with your new families?

Once contacted, online technologies are used to support induction, to collect information for enrolment, and to share a variety of school familiarisation resources prior to attendance.

Table 3: Comparisons for Question 2

New Zealand	Northern Ireland (UK)
School advertise themselves online; however, telephone contact is generally preferred. Once pupils are enrolled, text messages are issued through an app.	Welcome videos, classroom tours and personal information are provided online. Information about the children is shared with the school. QR codes are used to simplify access.

13.2.3 What different technologies (both hardware and software) do you use in communicating with your families?

A wide variety of different online and social media applications are used in all cases to support contact with families. Google Translate is used where schools cope with a range of languages spoken by families.

Table 4: Comparisons for Question 3

New Zealand	Northern Ireland (UK)
The use of Facebook, school websites, bulk-emailed newsletters, text messages, School Loop (a parental app) and the Hero management system is common. Seesaw is also in use, and examples of learning are shared with families.	A wide use of applications is evident, including Seesaw, email, school websites, Twitter (X), bespoke parental communication apps, Google Classroom and ClassDojo. Apps are used for booking events and notifying time changes.

13.2.4 What influences your choice of technology (hardware and software) when communicating with families? Do you make considerations such as ease of use, saves time, accessibility to families, or whether parents have provided positive feedback that they feel this is an effective tool of communication, for example?

In both NZ and NI, relevant content is usually published on multiple online channels to match parental preferences, although text messages are regarded as the most commonly read. When responding to school lockdowns (during the Covid-19 pandemic), schools were able to respond promptly because of their existing use of learning environments. The increasing cost of using Seesaw is an issue in both countries.

Table 5: Comparisons for Question 4

New Zealand	Northern Ireland (UK)
Schools found that some apps in use did not provide the necessary confirmation that parents had read messages. Weak Internet access in some rural areas prioritised telephone contact over online contact.	Immediacy of response and contact between school and home is regarded as the most effective outcome of technology use. In the more technologically developed examples, all documentation and records are 'paperless', with filing cabinets and box files becoming redundant.

13.2.5 What information and resources do you share with new families transitioning to school?

Orientation and enrolment information and resources comprise the main traffic between homes and schools. Once enrolled, parents are signed into a learning environment for shared access to children's work.

Table 6: Comparisons for Question 5

New Zealand	Northern Ireland (UK)
School prospectuses are both sent by post and put online. MS PowerPoint presentations are used when parents visit schools for the first time.	Songs and rhymes about starting school are shared online. As well as school information, parents are provided with insight to, and advice about, teaching and learning.

13.2.6 Does your school have online information/resources purposed to support new families? If yes, when do you advise parents that this is available and direct them to the information/resources? What kind of information/resources are available online for families?

There is a commonality in the range of resources provided: about policies and practices; about the education provided; and about the kinds of activities children will be involved in.

Table 7: Comparisons for Question 6

New Zealand	Northern Ireland (UK)
Information about learning initiatives and projects, especially those based on the local environment, is promoted. A commonly used app is used in all four schools for parents to pay for necessities.	The schools aim to generate familiarity for the children before they arrive in class. Information about the curriculum, learning, and reminders about planned events are sent out as a priority.

13.2.7 How do you use technologies to support any new families' questions around transition?

In both NZ and NI, questions from parents are encouraged; responses are often by email, often sent out at volume to all appropriate parents, and during out of school hours/days.

Table 8: Comparisons for Question 7

New Zealand	Northern Ireland (UK)
For smaller schools in particular, the volume of questions is onerous, but are always responded to by the principal.	Parents are encouraged to make use of the digital platforms to channel queries and receive information and advice available there.

13.2.8 In a typical school week, using technologies, what information would be shared with families and how would it be shared?

Online communication proceeds on a daily basis. News about events and homework are shared, as well as messages about the progress of individuals and groups, especially when illustrated by photographs.

Table 9: Comparisons for Question 8

New Zealand	Northern Ireland (UK)
Information is often collated into newsletters with photographs shared to round off the week. Advice can be very specific – such as about what hats to wear in the sunshine.	One school enables online booking through Eventbrite to take part in events, as well as messages about changes in arrangements through shared time sheets.

13.2.9 Would you say that technologies are used mostly by the school to inform the whole school group or individual families?

All schools have a balance between communicating either with all families, or with individuals or groups, according to need.

Table 10: Comparisons for Question 9

New Zealand	Northern Ireland (UK)
The Hero learning environment enables teachers to send out personalised communications to individuals, controlled by passwords. Bulk emails and Facebook are usually reserved for messages to all parents.	Communications to class groups are used to generate a sense of community and for congratulatory messages. Schools appreciate that communications are more successful online than when paper based.

13.2.10 Do you use technologies in supporting families as a group as well as individually?

All schools use technology to communicate with families as groups as well as with individuals.

Table 11: Comparisons for Question 10

New Zealand	Northern Ireland (UK)
Support ranges from encouraging engagement in sporting activities and seeking parental help, for example, to running the school shop, chicken placement, forest education visits, and so on.	There is an emphasis on encouraging parents to be an ‘audience’ for the work of all pupils, and not just their own children. Care is taken about to whom messages are addressed in cases where parents are separated.

13.2.11 Does your use of technologies enable families to connect with other families?

Families communicate with each other, but there is notable variation in the approaches in NZ and those in NI.

Table 12: Comparisons for Question 11

New Zealand	Northern Ireland (UK)
Some class teachers manage Facebook not just to give parents support about learning but to encourage parents to share advice and to support each other.	Parents spontaneously set up their own WhatsApp groups to give each other advice, not only about using technology and about education, but also, for example, about local social services and fund-raising.

13.2.12 Once a child has started school, how do you use technologies to support them feeling included in the new school community?

Privacy of access is a priority both in NZ and NI; within closed groups, many examples of children’s work, in a range of media types, are used to build a shared sense of class, as well as of school, community.

Table 13: Comparisons for Question 12

New Zealand	Northern Ireland (UK)
Schools encourage mutual sharing, not just by the teacher sharing insights with parents about classwork, but by parents sharing information about their own school experiences and about activities undertaken by their children at home and in the outdoors environment.	Use is made of voice recordings by teachers, photographs of work, children’s early drawings and mark-making, as well as the celebration of achievements beyond the formal curriculum. During school lockdowns, such sharing was said to ameliorate a sense of social isolation.

13.2.13 What forms of two-way communication have you developed using technologies with your school families to support the building of parent-school partnership? What form of technology (hardware and software) do parents use to communicate to the school? To other families?

While digital technologies are now being seen as the default means of communication due to their efficiency (especially in NI), other means, such as telephone calls, still remain a significant means of contact in NZ.

Table 14: Comparisons for Question 13

New Zealand	Northern Ireland (UK)
Even though parents are encouraged to use Seesaw and Hero as much as possible, there remains freedom of choice for teachers over what forms of communication to use when communicating with parents. Telephone use remains common, as well as the use of text messages.	While two-way online communication supports engagement, schools guard the wellbeing of their staff by setting out protocols (times of day when communication is feasible, with which individuals, use of devices, etc.) when parents may, and may not, expect or demand responses to emails and messages via apps and learning environments. What is posted online is also carefully monitored.

13.2.14 How do you use technologies to develop a parent-partnership around the child/new child and their learning?

Learning environments and apps are being used to provide parents with insights into learning by their children and to encourage them to respond and to support that learning.

Table 15: Comparisons for Question 14

New Zealand	Northern Ireland (UK)
Emphasis is placed on developing parents' uses of technology to a level where they can participate in supporting learning at home and log and report that back to the teachers. Online resources have replaced paper homework booklets. Work is displayed on digital screens in spaces around the school before and after class time.	Examples of the children's learning are shared with parents, as well as how well they are settling into school. Parents are encouraged to respond, such as by adding comments. In the most technologically developed examples, teachers video record entire lessons, produce digital resources and offer learning activities online for parents to see and to support.

13.2.15 Thinking about when you use technologies for supporting a transitioning family, then thinking about how you use technologies with families once they have started school, what would you say are the differences and why?

Technologies are used extensively for both purposes, during transition to schools and once they have started school. Schools endeavour to enrol families as early as possible into the school's choice of learning environment and apps to support continued teaching and learning.

Table 16: Comparisons for Question 15

New Zealand	Northern Ireland (UK)
While school websites are the main source of information for parents to support transition, and emails for answering questions and giving advice at the very outset, schools enrol parents into online apps as soon as possible to encourage ongoing dialogue about learning, as well as for tracking and reporting against developmental benchmarks for each child.	Face-to-face and telephone transition meetings continue in some rural communities, as superfast broadband is not yet sufficiently universal to support Zoom/SoundCloud meetings alone. An advantage of retaining evidence of pupil work online during term-time is that of record-keeping and routine reporting on the growing achievements of each child.

13.2.16 Have you recently reviewed your use of technologies in communicating with your families?

Monitoring and reviewing the use of different technologies and applications for their effectiveness is a preoccupation for all, especially as the understanding of the different affordances of each application grows and the digital technologies evolve with new developments becoming available.

Table 17: Comparisons for Question 16

New Zealand	Northern Ireland (UK)
Experience varies about the pace and extent of review; for example, whether it is a new school, or whether some application is well established and effective, or comes at no cost. The increasing cost of Seesaw is a concern. Experience about the value and effectiveness of the school management system varies considerably.	Taking account of the view of parents is an important element of school self-evaluation of the benefits and disadvantages of using technologies. Schools are increasingly conscious of the costs of any application that they may choose to employ, which is not provided to them centrally.

13.2.17 What did you identify that was working well?

While willing to try out different applications, schools are clear about what is currently working well for them.

Table 18: Comparisons for Question 17

New Zealand	Northern Ireland (UK)
Responding to the impact of Covid-19 allowed schools to experiment with unfamiliar apps and appreciate their strengths and weaknesses. Zoom proved somewhat problematic, but Hero, Seesaw and Facebook were well established. Translation functions are helpful where several languages are in use.	Schools welcome stability in what they are using. They are also encouraged in this by highly positive parental responses to online working. Google apps (Meet, Calendar and Classroom), as well as Seesaw, are seen as aiding in school management.

13.2.18 What changes did you make and why?

While costs are a factor to greater or lesser extents, the efficiency and effectiveness of a particular application is an important consideration.

Table 19: Comparisons for Question 18

New Zealand	Northern Ireland (UK)
Costs are becoming increasingly important in driving change. Significant Seesaw price increases are an unwelcome development. Schools are keen to improve the quality of their website in recognition that this is, in effect, the shop window for the school for new families.	Schools value choosing applications which improve communication and administration, as well as promoting safer Internet use. Parental views are important in making any change, and the timing in the school year to make a change is carefully considered.

14. Conclusions and recommendations

From the findings across the two sets of case studies, it is clear that in these cases, whether they be in NZ or NI, that digital technologies are being used by schools and by parents to support and improve, enhance and widen parental engagement and relationships. The importance of establishing positive parental engagements has been recognised and argued for many years, and

these case studies clearly illustrate the benefits that can arise when careful uses and carefully managed interactions are offered and developed, supporting those individuals important in the development of positive learning (parents and guardians, teachers and school leaders, and, of course, learners themselves).

Education authorities and those responsible for the governance of individual schools have long recognised the crucial importance of school/parent partnership in the early years and variously provide policy direction⁷, guidance, support and coordination to help build links between home and school. In some instances, authorities provide advice on the use of digital technologies to strengthen parental engagement between home and school. In one case⁸, while the advice is research-based across school sectors, it is not focused specifically on early years. It is not common to find examples of policy setting and guidance relating to the development of parental engagement through the use of digital technologies in early years settings. Clear and purposeful guidance is mainly limited to case study examples and a few references from a variety of policy sources. In terms of informing policy for parental guidance and using technology, there is a specific gap in the research concerning the use of digital technologies in facilitating and maintaining communication between school and parents during the transition to school process.

Furthermore, in the two sets of case studies reported here, the development of innovative practice in using digital technologies is dependent on the drive of individual leaders of learning, rather than from the outcome of a regional or national education policy. This research suggests that leadership is concerned with behaviour rather than just being a role. Examples of this are demonstrated in both NI and NZ contexts, arising from a range of influences, including cost and the desire to build relationships.

Our findings enable us to offer key recommendations for research, for policy, and for practice.

Recommendations for policy are to:

- Set regional or national policy, and provide guidance, relating to the development and evaluation of the effectiveness of parental engagement through the use of digital technologies in early years settings.
- Promote the need for schools themselves to develop local policy for their own uses of digital technology and to support implementation by identifying innovative practice leaders.

Recommendations for practice are to:

- Develop and maintain a two-way communication process with parents, during and after their transition to school. Digital technologies enable sharing information and building connections with new families.
- Draw upon a range of technologies to communicate and share learning with parents. As 'one-size does not fit all', the digital technologies that educational settings select as their communicative tools must be responsive to a range of families' needs.

⁷ <https://help-for-early-years-providers.education.gov.uk/get-help-to-improve-your-practice/working-in-partnership-with-parents-and-carers>

⁸ <https://www.eani.org.uk/parental-engagement>

⁹ <https://elearning.tki.org.nz/Beyond-the-classroom/Engaging-with-the-community>

¹⁰ Future-focused learning in connected communities

<https://d1pf6s1cgoc6y0.cloudfront.net/7f9576aea1a444409cf972003a6cb5e9.pdf>

- Ensure that maintaining frequent engagement using digital technologies with parents is manageable for teachers to integrate into their teaching practices, and does not become an 'add-on' to their daily responsibilities.
- Support parents to engage with their child's learning using digital technologies. Educational settings may need to consider ways to assist parents to enable their use of the tools.
- Select digital technologies that provide flexibility to communicate with individual families, class, school community engagement, generating many opportunities for a setting to cultivate parent partnerships and for new families to feel part of a community.
- Monitor and track a parent's engagement with their child's learning online. App-based technology provides settings with information to be able to target their support to reach individual families.

Recommendations for research are to:

- Expand this study beyond the bounds of NZ and NI, to identify whether practices in other countries and regions is comparable to those found in this study.
- Widen the study within NZ and NI, to identify the extent to which these practices might be happening, and to find whether there are other variations.
- Diversify the approach of the study, to detail instances of schools that take a more negative approach to this form of developing parental engagement, to understand whether there are key issues that schools or parents might have that are preventing positive development of parental engagement in the ways seen in this study.
- Increase the detail of this study through gathering wider insights from parents, to understand their perspectives and whether there are issues and challenges that they might face.
- Lengthen the study, to determine through a longitudinal study how this initial level of parental engagement might shift over time, when children move to other year groups in the school, and to subsequent schools.

References

- Adams, W. (2015). Conducting semi-structured interviews. In J. Wholey., H. Hatry., & K. Newcomer, (Eds.). *Handbook of practical program evaluation* (pp.492-505). Jossey-Bass.
- Berg-Schlosser, D. (2015). Comparative studies: Method and design. *International Encyclopaedia of the Social & Behavioural Sciences*, 2(4), 439-444.
- Bowen, G. A. (2009). Document analysis as a qualitative research method. *Qualitative Research Journal* 9(2), 27-40.
- Brooking, K. (2007). Home-school partnerships. What are they really? *Set: Research Information for Teachers*, (3), 14–17. doi:10.18296/set.0542
- Bull, A., Brooking, K., & Campbell, R. (2008). *Successful home-school partnerships*. NZCER.
- Busher, H., & James, N. (2012). The ethical framework of research practice In A. Briggs., M. Coleman., & M. Morrison. (Eds.). *Research methods in educational leadership and management* (pp. 90-104). SAGE Publications.
- Chou, P. N. (2015). Communicating with parents in today's digital world. *Religious educators: Perspectives on the restored gospel* 16(3), 58-75, Article 6. <https://doi.org/https://scholarsarchive.byu.edu/re/vol16/iss3/6>
- Cohen, L., Manion, L., & Morrison, K. (2007). *Research methods in education* (6th. ed.). Routledge.
- Crowe, S., Cresswell, K., Robertson, A., Huby, G., Avery, A., & Sheikh, A. (2011). The case study approach. *Medical Research Methodology*, 11, 2-9. <http://www.biomedcentral.com/1471-2288/11/100>
- Denzin, N.K., & Lincoln, Y.S. (2003). Introduction: the discipline and practice of qualitative Research. In N.K. Denzin., & Y.S. Lincoln (Eds.). *Strategies of qualitative inquiry*. Sage.
- Dockett, S., & Perry, B. (2007). *Starting school: Perceptions, expectations and experiences*. Pademelon Press.
- Dockett, S., Greibel, W., & B., P. (2017). Transition to school: A family affair. In S. Dockett., W. Griebel., & P. B. (Eds.). *Families and transition to school* (pp. 1-20). Springer International Publishing. <https://doi.org/DOI:10.1007/978-3-319-58329-7>
- Education Review Office, (2015). *Educationally powerful connections with parents and whānau*. ero.govt.nz/sites/default/files/2021-05/ERO-Educationally-Powerful-Connections-FINAL.pdf
- Flick, U. (2002). *An introduction to qualitative research*. (2nd ed.). Sage.
- Geser, H. (2004). Towards a sociology of the mobile phone. In: Prof. Hans Geser: Online Publications. http://geser.net/mobile/t_geser1.pdf
- Grant, L. (2011). I'm a completely different person at home: Using digital technologies to connect learning between home and school. *Journal of Computer Assisted Learning* (27), 292-302.
- Guillemin, M., & Gillam, L. (2004). Ethics, reflexivity, and "ethically important moments" in Research. *Qualitative Inquiry*, 10(2), 261-280. <https://doi.org/DOI:10.1177/1077800403262360>
- Hamel, J., Dufour, S., & Fortin, D. (1993). *Case study methods*. Sage Publications.
- Hill, R., Rameka, L., & Skerrett, M. (2017). *Māori medium transition final report*. Wilf Malcolm Institute of Educational Research.
- Jamshed, S. (2014). Qualitative research method-interviewing and observation. *Journal of Basic and Clinical Pharmacy* 5(4), 87-88.
- Juniu, S. (2009). Computer mediated parent-teacher communication. *Revista Electronica Actualidades Investigativas en Educacion*, 9(3).
- Kirk, J., & Miller, M. L. (1986). *Reliability and validity in qualitative research*. SAGE Publications. <https://doi.org/https://www-doi-org.ezproxy.waikato.ac.nz/10.4135/978141298>
- Korstjens, I., & Moser, A. (2018). Series: Practical guidance to qualitative research. Part 4: Trustworthiness and publishing *European Journal of General Practice* 24(1), 120-124. <https://doi.org/https://doi.org/10.1080/13814788.2017.1375092>
- Kuusimäki, A. M., Malmivaara, L. U., & Tirri, K. (2019). The role of digital school-home communication in teacher well-being. *Frontiers in Psychology*, 10, 1-8, Article 2257. <https://doi.org/doi:10.3389/fpsyg.2019.02257>
- Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. Sage Publications.
- Mason, J. (1996). *Qualitative researching*. SAGE Publications.
- Mills, A. (2010). *Encyclopaedia of case study research*. Sage.
- Mutch, C. (2005). *Doing educational research: A practitioner's guide to getting started*. NZCER Press.
- Neuman, W.L. (1997). *Social research methods: Qualitative and quantitative approaches*. (3rd Ed.). Allyn and Bacon.
- O'Leary, Z. (2021). *The essential guide to doing your research project* (4th ed.). Sage.

- Reddy, R., Rhodes, J. E., & Mulhall, P. (2003). The influence of teacher support on student adjustment in the middle school years: A latent growth curve study. *Development and Psychopathology, 15*(1), 119-138. <https://doi.org/doi:10.1017/S0954579403000075>
- Reichmann, E. (2010). *Transition from the nursery school to primary school under considerations of learning methods*. Schneider Verlag Hohengehren.
- Roulston, K., de Marrais, K., & Lewis, J.B. (2003). Learning to interview in the social sciences. *Qualitative Inquiry 9*(4), 643-668.
- Sanjari, M., Bahramnezhad, F., Fomani, F. K., Shoghi, M., & Cheraghi, M. A. (2014). Ethical challenges of researchers in qualitative studies: The necessity to develop a specific guideline. *Journal of Medical Ethics and History of Medicine, 7*(14).
- Stake, R.E. (1994). Case Studies. In N.K Denzin & Y.S. Lincoln (Eds.). *Handbook of qualitative research* (pp.236-247). Sage.
- Stake, R.E. (1995). *The art of case study research*. Sage.
- Stake, R. E. (1998). Case studies. In N. Denzin. & Y. Lincoln. (Eds.). *Strategies of qualitative research* (pp. 86-109). Sage.
- Toma, J. D. (2006). Approaching rigour in applied qualitative research. In C. Conrad. & R. Serlin. (Eds.). *The Sage handbook for research in education* (pp. 405-423). Sage.
- Vavrus, F., & Bartlett, L. (2023). *Doing comparative case studies: new design and Directions*. Routledge.
- Wallace, P. (2010). Anonymity and confidentiality. In A.J. Mills., G. Durepos., & E. Wiebe. (Eds.). *Encyclopaedia of case study research* (pp. 23-24). SAGE Publications. <https://doi.org/http://dx.doi.org/10.4135/9781412957398.n9>
- Webb, G., Knight, B. A., & Busch, G. (2017). Children's transitions to school: 'So what about the parents?' or 'so, what about the parents?' *International Journal of Early Years Education, 25*(2), 204-217.
- Wilder, J., & Lillvest, A. (2017). Hope, despair and everything in between- parental expectations of educational transitions for young children with intellectual disability. In S. Dockett, W. Griebel, & B. Perry. (Eds.). *Families and transition to school* (pp. 51-66). Springer International Publishing.
- Wiles, R. (2012). *What are qualitative research ethics?* Bloomsbury.
- Yin, R.K. (2014). *Case study research: Design and methods* (5th ed.). Sage.