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How Can I Use Personalised, Digital-Based Learning to Enhance my Teaching of Reading Comprehension?

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Declaration

I certify that this research, submitted for the degree of Master of Education, Maynooth University, is entirely my own work, has not been taken from the work of others and has not been submitted in any other university. The work of others, to an extent, has been cited and acknowledged within the text of my work.

Linda Champkin

Date: 09/09/2022

Abstract

This self-study action research project explored: *How can I use personalised, digital-based learning to enhance my teaching of reading comprehension?* My focus on increased separation and decreased interaction due to Covid-19 restrictions (DES, 2021) caused me to retreat to a didactic approach in my teaching of reading comprehension. Through a combination of critical reflection on the mismatch between my practice and my values, in addition to engagement with Irish policy documents on enacting high-quality teaching (GOI, 2021a; DES, 2022), I realised I needed to teach in a more responsive manner; one in which engagement could be maximised despite the Covid-19 social distancing measures.

During the course of a ten-week action research cycle, my students completed a number of digital-based reading comprehension tasks which developed the skill of connecting. The first three weeks of the intervention focused on direct teaching of the digital skills needed to both self-select a text from a digital library and create content to demonstrate learning. Scaffolding was then provided as the students engaged with text and recorded their learning according to their own preferences and needs. The digital library Epic was used, in addition to content-creation software such as BookCreator, GoogleDocs and Jamboard.

It was found that the provision of personalised, digital-based learning experiences enabled the children to experience themselves as agentic learners. The enactment of student agency resulted in the students feeling empowered to use their voice, to make responsible choices and to take ownership over their role in the process. The following two elements were found to be important in empowering the learner to engage with personalised, digital-based

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learning: establishing a supportive climate and enabling student agency by providing meaningful learning opportunities in which responsibility is gradually released.

My own stuckness in relation to teaching reading comprehension has evolved as I moved beyond a focus on the acquisition of knowledge and skills, towards a more holistic model of learning. I now realise the significance of adopting a pedagogic approach that offers the students the opportunity to discover information for themselves based on their own interests, needs and preferences when using digital tools.

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List of Acronyms and Abbreviations

AR	Action Research
BOM	Board of Management
CF	Critical Friend
CR	Child Reflection
DES	Department of Education and Skills
DLP	Designated Liaison Person
GDPR	General Data Protection Regulation
GOI	Government of Ireland
ICT	Information and Communications Technology
MEd	Masters of Education
NCCA	National Council for Curriculum and Assessment
NEPS	National Educational Psychological Service
OECD	Organisation for Economic Co-Operation and Development
PAR	Participatory Action Research
PDST	Professional Development Service for Teachers
PIGD	Post-Intervention Group Discussion
TO	Teacher Observation
TRJ	Teacher Reflective Journal
UDL	Universal Design for Learning
UNESCO	The United Nations Educational, Scientific and Cultural Organisation

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Chapter One: Introduction

1.1 Introduction

This thesis details my practitioner-focused learning journey to enhance my teaching of reading comprehension. I explore how personalised learning and digital tools can be incorporated into my teaching, with a view to enhancing the learning experiences of my students. The use of a Self-Study Action Research methodology allows me to act, analyse and generate theory (Sullivan et al., 2016: 44).

The academic year 2021/2022 began amidst a backdrop of ongoing change and enduring amendments to the learning environment. This was due to the Covid-19 Pandemic. Chapter One begins by situating the context of this with regards to my research. Following this, I establish my values; a core component of the Self-Study Action Research methodology (Sullivan et al., 2016: 28). I outline the purpose, aims and rationale for my research, before finally sharing my own definition of personalised learning. Chapter One concludes with a description of the structure of my thesis.

1.2 Covid-19

In August 2021, the DES released an updated 'Covid-19 Response Plan' for the safe and sustainable operation of schools (DES, 2021a). Maintaining physical distancing by increasing separation and decreasing interaction remained as core features of the plan (DES, 2021a). I began to notice that the on-going implications of upholding necessary safety measures stifled my creativity. This caused me to reflect on my role as a teacher. I felt that my values of care, trust

and empowerment were not embodied in my approach to teaching reading comprehension. An over-focus on compliance for safety measures resulted in my increased use of a teacher-led approach, meaning that I experienced myself as a ‘living contradiction’ (Whitehead, 1989).

Through a combination of critical reflection on the mismatch between my practice and my values, in addition to engagement with Irish policy documents on enacting high-quality teaching (GOI, 2021a; DES, 2022), I realised I needed to teach in a more responsive manner; one in which engagement was maximised despite the social distancing measures that were in place at the time of my intervention. The fact that the Preparation for Teaching and Learning Guidance Document (GOI, 2021a: 17) highlighted the term “a responsive, personalised approach” in relation to enabling high-quality teaching stood out for me. Reflecting on the aforementioned term helped me to realise I was making an assumption that the Covid-19 pandemic meant I was required to teach in an overly teacher-directed manner. The fact that the Digital Strategy for Schools to 2027 advocates for a learner-centred approach (DES, 2022: 23) empowered me to think in new ways in relation to enhancing my practice. This led me to identify my desire to focus on incorporating personalised, digital-based learning into my teaching of reading comprehension.

1.3 Values

My Values	
Empowerment	I value acting responsibly through my own free-choice. I value self-determination. I value having a sense of belonging and using this to make decisions.
Care	I value when people show concern for others. I value accepting people for who they are as an individual. I value hearing and seeing other points of view.
Trust	I value when people feel safe to share their point of view and to be themselves. I value looking out for and appreciating others.

Figure 1.1: What does it mean to value empowerment, care and trust?

As seen in Figure 1.1. above, I have identified my values as empowerment, care and trust. My recent experience of resigning a permanent teaching position of twelve years significantly impacted upon my awareness of my values. I identified a lack of hope in my prior teaching environment which highlighted the importance I place on empowerment as an educator. I noted in my reflective journal at the beginning of the MEd process:

I want to do my best to promote a love for learning and a sense of awe / love of the world we live in and each individual's unique place in it. I want to achieve this because it increases hope...happiness, self-awareness, a sense of purpose and hopefully then enables others to make a positive difference in life and to continue helping others (TRJ, 19th August 2021).

My value of empowerment was further informed by my recent engagement with continuous professional development on the topic of leadership. In this regard, theoretical literature on transformational leadership (Bass, 1985) and the need for psychological safety

during the process of change ignited a sense of possibility and renewed hope in enhancing my teaching (Lewin, 1947; Kotter, 1995; Schein, 2010).

My values of care and trust have been influenced by positive experiences of collegiality in the workplace, in which a sense of relatedness was fostered. Self-determination theory (Deci & Ryan, 1985) acted as a means to situate my values of empowerment, care and trust. Self-determination theory suggests that motivation to grow and flourish is linked to three innate psychological needs; autonomy, relatedness and competence. The active promotion of these three elements in my current teaching environment has impacted positively on my motivation levels. This has resulted in a heightened self-awareness of my teaching and a sense of possibility for using my agency to direct continued professional growth.

I see my values being lived out in my everyday practice when I use open-ended learning opportunities to facilitate and empower the children to become intrinsically motivated, to take ownership of their own learning and to self-reflect. This allows me to celebrate the uniqueness of each individual and each child's significance as part of the overall classroom community. These embodied values inform my practice as a teacher and have become the living standards through which I judge the quality of my self study action research.

1.4 Rationale

The students we teach today are digital natives, a term coined by Prensky (2001) to describe those who grow up in an age which is surrounded by technology. As noted in the current Digital Strategy for Schools (DES, 2022), we are part of a world which is abundant in information,

advanced technology and convenience. We are also part of a world which is rapidly evolving and changing. The purpose of my study is a direct response to this need for change.

From the outset, it was apparent that my values were being denied in my teaching of reading comprehension. I reflected on the reality that my pre-intervention reading lessons were lacking in personal meaning for my students, writing:

My approach to teaching reading skills at the moment isn't inspiring the children. They are happy in class but it seems like 'just a task', something we all 'need to get on with'. It all feels a bit prescribed (TRJ, 7th November 2021).

As Sullivan et al. (2016: 48) caution:

while the repetition of key messages is an inherent element of a teacher's work, it can lull us educators into a false belief that what we are doing is productive and educational.

Prior to reflecting on my teaching of reading comprehension, I was living this reality. Through the use of my reflective journal, I had identified that repetition of key messages, or skills in this case, had taken precedence over creativity. The key attributes of 'being creative', one of the seven key competencies included in the Draft Primary Curriculum Framework suggested incorporating curiosity, innovation and exploring alternative ways of communicating (NCCA, 2020: 10). This led me to identify the change I would like to make in my practice. In my reflective journal, I noted:

I would like to get the children more involved, to get them interested in their own learning and to be able to apply their reading comprehension skills in a way that is meaningful and real. I feel the use of technology could enable this (TRJ, 11th November 2021).

At odds with Blomeke et al.'s theory (2015), my positive disposition towards ICT didn't appear to be influencing the extent to which I was incorporating digital tools into my teaching. I shared possible reasons for this with a critical friend, later reflecting:

Initially I thought to myself, how on earth have you not already adopted an approach like this, you're so aware of the benefits of incorporating ICT... but X today made a valid point about certain types of learning needing more teacher-input. I think I assumed that reading comprehension was one of those types of learning (TRJ, 23rd November 2021).

I was beginning to realise that my teaching of reading comprehension did not need to exist solely at the teacher-led end of the continuum (Blair et al., 2007). This made me realise I could explore combining direct-instruction of reading skills and digital skills with the purposeful use of digital tools. It is with this critical problem in mind that I designed my research question, 'How can I use personalised, digital-based learning to enhance my teaching of reading comprehension?'

1.5 Aims of my Study

By adopting personalised learning in my teaching of reading comprehension, and by incorporating the purposeful use of digital tools, I intended to:

- Provide relevant, meaningful learning opportunities for pupils in a modern world (DES, 2015: 5)
- Explore the possibility of digital learning being used to construct knowledge and to engage thinking (DES, 2015), with a focus on "pedagogy first, technology second" (DES, 2022: 22).

- Gain a greater awareness of my values and their impact on my practice.
- Generate a living theory about how my learning has impacted on and improved my practice (McNiff & Whitehead, 2006).

1.6 Purpose of my Research

The main goal of my research was to enhance my teaching of reading comprehension with my senior primary pupils. This led me to follow my interest of embedding digital-learning into my teaching. The potential for my students to personalise their own learning through the use of digital tools appealed to my desire to implement a student-led approach rather than the teacher-led focus which was the reality of my reading comprehension lessons. I wanted to investigate if the provision of personalised, digital-based learning experiences could enable the children to become agentic learners who take ownership over their role in the learning process.

In this regard, I identified three ancillary research questions which directly related to my research question. These ancillary research questions provided a focus point during the process of critical reflection throughout my MEd journey. I also used the three questions, which are presented in Figure 1.2 below, to ensure that the themes I generated focused on each element of my research. This can be seen in Appendix C and it will be explored in Chapter Four.

1. How does a transfer of power from teacher to student impact the learning process?
2. How does personalised learning affect my teaching of reading comprehension?
3. How can digital tools be used to personalise the learning task?

Figure 1.2: My Ancillary Research Questions

1.7 Action Research Paradigm

Action research focuses on the researcher's role in using their new knowledge to bring about change (Sullivan et al., 2016). This appeals to my ontological value of empowerment. Through the use of action research, I hoped to, as Kemmis suggests (2009), bring about positive change in my practice and further enhance my self-understanding as a teacher.

Action research is not linear and can be viewed as a messy process which “resists closure” (McNiff, 2013: 20). I believe this is where the true strength of action research lies. It is in this messiness of classroom research where possibilities are explored and change can be realised (McDonagh et al., 2019). Through its realism and the continuous evolution of one's own understanding (Schulte, 2004), action research further links itself to the complex realities of teaching and learning. Brookfield's four lenses for critical reflection add rigor and depth to the process, allowing me as the researcher to view, scrutinise, reflect and meta-reflect on my own assumptions through the lens of personal experience, theory, students' eyes and colleagues' perceptions (Brookfield, 2017: 20).

1.8 My Own Definition of Personalised Learning

I understand personalised learning to be a student-led experience which evolves according to learner characteristics such as needs, interests and skills. I see the enablement of student choice and voice as essential during the process. Similar to Porath and Hagerman (2021) and Järvelä (2006), my understanding of personalised learning further incorporates the potential use of digital-based tools to enhance learning. The relevant literature, combined with my values and critical reflection, has shaped my understanding.

Whilst I agree with Shemshack and Spector's (2020) argument that personalised learning caters for individual ability, I found their explanation lacked a focus on the pivotal role of both the teacher and the student during the process. Catering for individual ability is not exclusive to personalised learning. This can be achieved by differentiation, for example. However, personalised learning extends beyond differentiation in how it can enable the learner to take ownership of the choices they make in relation to their learning. In doing so, personalised learning actively promotes the learner's voice. My value of care, combined with Schmid et al.'s (2022) research on personalised learning informed my definition in this regard. In their recent study, it was found that a higher degree of student choice impacted cognitive activation of the learners and stimulated an improvement in the learning environment (Schmid et al., 2022).

Of note, Bernacki et al.'s (2021) personalised learning framework assisted me in clarifying my own understanding of what personalised learning is. As can be seen in my definition of personalised learning, I have drawn on Bernacki et al.'s (2021) concept of learner characteristics. I refer to the ideas within Bernacki et al.'s (2021) personalised learning framework throughout my thesis. I found it offered me clarity on my role as the teacher in enacting personalised learning. Additionally, it enabled me to design an approach which attempted to place the student at the centre of the process. Bernacki et al.'s framework is explored in detail in Chapter Two.

1.9 Thesis Structure

I have structured my thesis according to the steps involved in an action enquiry (McNiff & Whitehead, 2006).

Chapter One provides an overview of my values, rationale, aims and the purpose of my study. It introduces important elements of the research, such as my understanding of personalised learning and the role of action research.

Chapter Two consists of a review and analysis of the relevant literature with regards to personalised, digital-based learning and reading comprehension. It considers the all-encompassing nature of personalised learning and examines the role of the teacher in enabling it to occur, in addition to specifically focusing on the Irish context.

Chapter Three focuses on the research procedure, including an explanation of the data collection tools which I chose and details of the research paradigm employed. Ethical considerations are presented and an overview of the ten-week action learning cycle is provided. Additionally, the reflexive thematic analysis process is explained and I describe how I synthesised the data into two themes.

Chapter Four contains an evaluation of the outcomes of my intervention. The two themes which emerged from the data are analysed: Teacher as Caring Facilitator; and Student as Agentic Learner.

Finally, **Chapter Five** provides a conclusion of my learning as a result of engaging with the process. This Chapter presents my claim to knowledge and discusses the significance of my

research. The impact of the research on a personal and practical level are also detailed. Theory, reason and research are combined throughout to ensure that my research is a “systematic and methodologically rigorous” study (Cooney, 2016: 7).

Chapter Two: Literature Review

2.1 Introduction

This literature review will analyse and critique national and international perspectives on personalised teaching approaches. The context of an ever-changing, twenty-first century world is integral to this analysis due to the focus on digital tools in my study. In keeping with my values of care, trust and empowerment, the impact of personalised learning approaches on learner outcomes will be investigated. The research pertaining to the role of the teacher in enabling personalised learning will be examined and any conflict with teacher identity and agency will be explored. As my thesis is focused on the teaching of reading comprehension specifically, an overview into the teaching of reading comprehension will also be included.

2.2 What is Personalised Learning?

During my self-study action research study I found the lack of clarity and single definition of personalised learning to be a challenge. An example of the variations on the term which I encountered include experiential learning (Burnard, 1999), adaptive learning, customised learning, self-directed learning and flexible learning (Taylor, 2000). I also encountered a confusion between the terms differentiation and personalised learning. This was to be expected, with many researchers explicitly acknowledging the complexity of the concept of personalised learning (Shemshack & Spector, 2020; Walkington & Bernacki, 2020; Bernacki et al., 2021; Kucirkova et al., 2021). Indeed, Shemshack and Spector (2020) suggest that the confusion in defining the term could be hindering research progress in the field.

In order to address this concern with regards to my own understanding of personalised learning, I collated a variety of definitions found in the literature (as seen in Appendix B). My exploration and subsequent analysis of the theoretical definitions of personalised learning highlighted my desire for a framework to guide my approach. Whetten and Cameron speak about the importance of frameworks acting as a means to provide order “in the midst of constant change” (2016: 471). In this regard, the lens of literature assisted me to make sense of what personalised learning is and how I could adopt the approach to enhance my practice. Further clarity came in the form of a comprehensive meta-analysis of 376 empirical studies, in which the researchers, Bernacki et al. (2021) offer a framework to delineate the process of designing a personalised learning task. This framework can be viewed in Figure 2.1.

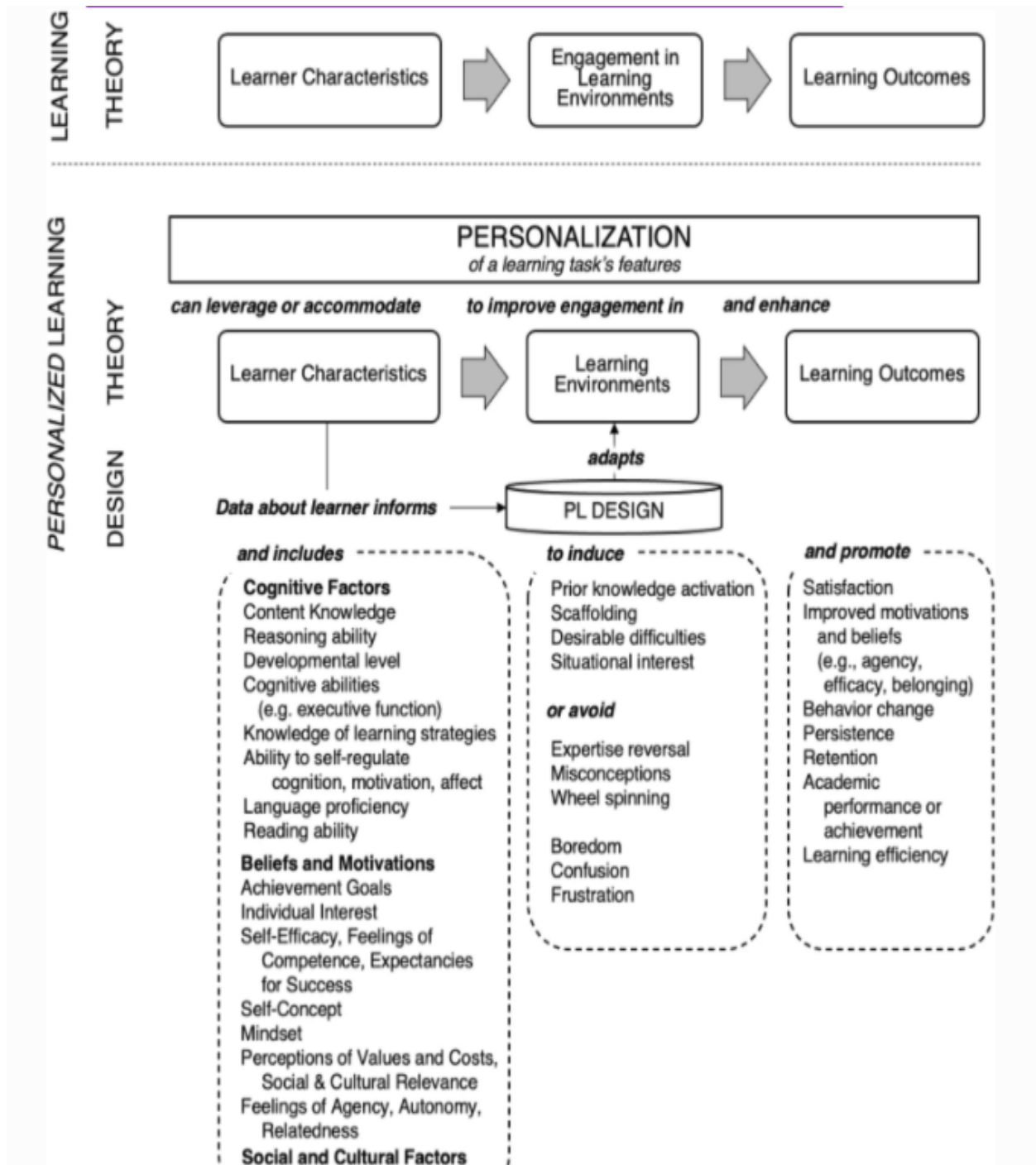


Figure 2.1: Bernacki et al.'s Framework for Personalised Learning

Source: Bernacki et al. (2021: 1678)

Based on their analysis, Bernacki et al. (2021) propose that personalisation of a learning task begins by accommodating learner characteristics such as interests, needs and goals. It was found that such an approach improves engagement in learning environments and it also serves to enhance the learning outcomes for the student (2021: 1678). As such, personalised learning can be understood as an instructional experience that is shaped by a combination of the students' "prior knowledge, motivations, goals, beliefs, interests, skills, experience and culture (and likely other factors)" (2021: 1678). In summary, the learner must be situated at the centre of the learning environment. This is significant because it suggests that enabling teacher and student agency is important during personalised learning experiences. In this regard, the role of teacher and student agency will be explored in detail during Chapter Four.

Bernacki et al.'s (2021) framework appealed to me for a number of reasons. Firstly, it is underpinned by a comprehensive meta-analysis which includes seminal authors in the field of personalised learning. Secondly, it appealed to me that the research is recent. Importantly, the framework's simplicity assisted me in visualising the steps I needed to take to empower the children to become critical, autonomous thinkers. Furthermore, as an experienced teacher, I found that Bernacki et al.'s framework managed to summarise the approach I was tacitly aware of in a succinct and easy to follow manner.

Through critical reflection, it became clear how this framework could enable me to move beyond experiencing personalised learning as "a multilayered construct" (Shemshack & Spector, 2020: 18). It provided a starting point to focus on; learner characteristics. I realised I could use the framework to make sense of the change I wanted to realise in my practice; to move beyond

an over-focus on direct instruction and towards a more student-led approach in my teaching of reading comprehension.

2.3 Personalised Learning: A Move Beyond Differentiation

2.3.1 Differentiation as Teacher-Centred

A wide range of definitions for the term differentiation are present in the literature on improving learner outcomes. One such example is that of Willis and Mann (2000). I chose to share this example as it aligns with my own understanding of differentiation as a teacher-led action. Willis and Mann (2000) describe differentiation as, “a teaching philosophy based on the premise that teachers should adapt instruction to student differences” (2000: 1). They further suggest that differentiation involves teachers modifying their instruction in response to the students’ needs. Similarly, Valiande et al. (2011: 11) focus on the role of the teacher in directing the learning.

As discussed by Bray and McClaskey (2013), the terms differentiated, individualised and personalised are often used as substitutes for one another, despite the fact that their meanings differ. For example, the term personalised learning is used interchangeably with the words differentiated, individualised and child-centred in various DES policies and educational strategy documents (DES, 2011; DES 2015; DES 2016; DES 2021, GOI 2021a). This confusion caused me to reflect on my understanding of differentiation and to consider how it differs from personalised learning.

Upon reflection of my experience of using differentiation in my approach to teaching reading comprehension, I identified a conflict with my value of empowerment. Consequently, I came to the realisation that I experience differentiation to be a teacher-centred experience. This

understanding is grounded in the research by Estes (2004), who proposes that such an approach positions the teacher as a giver of knowledge. Similarly, Bray and McClaskey (2013) note that differentiation is, at its core, teacher-centred.

As a teacher of fourteen years experience, I often use differentiation in response to the myriad of learner needs within my classroom. The benefits of such an approach are reflected in educational literature (Drumheller, 1971; Slavin, 1984; Tomlinson, 1999; Subban; 2006). However, prior to my engagement with this MEd, I had not considered the fact that differentiation places the teacher as the decision-maker during the learning process.

2.3.2 Actively Engaging the Learner

My renegotiated understanding caused me to realise there was a need to move beyond a differentiated approach in my teaching of reading comprehension. My critical reflections and conversations with critical friends suggested the importance of actively engaging the learner in the learning process. Research by Wolfe and Poon (2015) and Bernacki et al. (2021) clarified my understanding in this regard. Their research highlights the importance of enabling student agency and ownership during learning experiences. I now needed to connect this new knowledge in order to explore how I could empower my students to use their agency during personalised learning.

O'Neill and McMahon's (2005) study offered concrete examples of how to enable student agency during the personalised learning experience. They suggest that student agency is impacted by three elements; the level of student choice, whether the student is passive or active in their own learning and the power dynamics relationship between teacher and student. As a

result, the role of student choice and voice became apparent to me as a core distinction between differentiation and personalised learning.

The role of student choice and voice is further noted as important in the literature by DeMink-Carthew and Netcoh (2019) and Schmid et al. (2022). Becoming aware of the link between personalised learning and student choice and voice was significant for my research. It enabled me to feel confident that I understood the difference between differentiation and personalisation. This is important as, during the analysis of my data, I uncovered that student choice and voice played a pivotal role in enabling the students to become agentic learners in my study. This will be explored in detail during Chapter Four of my research, in which the theme ‘Student as Agentic Learner’ will be analysed.

2.4 The Role of Technology in Personalised Learning

2.4.1 Technology as Dual-Purpose

Holmes et al. (2018), amongst others, highlight the fact that personalisation of learning can include, but is not limited to technology (Holmes et al., 2018, Pardo et al., 2019; Major et al., 2021; Vanbecelaere & Benton, 2021; Schmid et al., 2022). With regards to the role of technology in personalised learning, Bernacki et al. (2021) propose that it can cater for two purposes; one which focuses on the role of the teacher, whilst the other takes the learner into consideration. Technology can be incorporated by the teacher to support high-quality teaching in the form of a design element. Additionally, technology can become a learning outcome, with the potential for the learner to enhance their digital-skills and motivation for learning. Zhang et al. (2019) acknowledge this potential. They state:

Personalized learning systems often leverage technology to enhance access to quality learning experiences for all learners (and they) support educators in effective implementation practices (Zhang et al., 2019: 268).

In light of critical reflection on why I chose to specifically incorporate technology into my study, my values of care and empowerment became apparent. I identified that I value incorporating the use of ICT as I see its potential to provide meaning and relevance during personalised learning experiences (TRJ, 13th November 2021).

2.4.2 Providing Relevance for the Learner

My understanding that the active use of technology in personalised learning provides relevance is reflected in the recently published Programme for Government (GOI, 2021b). In this document, the importance of using digital tools to engage learners “in structuring and shaping their own learning experience” is noted (GOI, 2021b: 95). The Digital Strategy for Schools (DES, 2015) also acknowledges the importance of relevance to the students’ lives. It suggests open-ended, technology-mediated learning experiences as one method of making learning meaningful. As a result, it can be stated that relevance is important during personalised learning. It acts as a motivator to engage students as active participants in their own learning.

During my intervention, my students were also required to *apply* their digital skills *during* engagement with the learning goal. Resulting learner outcomes included an improvement in my students’ digital skills and an increase in motivation, both of which will be explored in my analysis in Chapter Four. In this regard, it is important to note that the OECD, in their definition of the role of the school, state that the students should leave school with “a balanced set of cognitive, social and emotional skills to face the challenges of the twenty-first century” (OECD

2014, cited in DES, 2019: 12). The fact that the OECD's definition is framed as a response to the challenges of the twenty-first century suggests that a focus on enhancing the digital skills of the students is integral to ensuring that relevance and meaning prevail.

I was interested to see the importance of relevance also highlighted in the Draft Primary Curriculum Framework (NCCA, 2019: 7). The role of digital tools to foster students' ability to "thrive in a world increasingly immersed in technology" is noted (NCCA, 2019: 8). Similarly, Bernacki et al. (2021) and Schmid et al. (2022) acknowledge how technology-mediated personalised learning provides relevance for the students of today. They continue by suggesting that a wide variety of learner outcomes can be achieved when technology is used as a tool to enable personalised learning (Bernacki et al., 2021; Schmid et al., 2022).

2.4.3 Increased Motivation for Learning

As can be seen in the aims for my study in Chapter One, I sought to enhance the learner outcome of motivation in my approach. A large-scale meta-analysis by Nikou and Economides (2016) backs up my understanding in this regard. The study demonstrates the success of technology use in boosting student motivation (2016, cited in Epps et al., 2021). The opportunity afforded by technology to extend beyond knowledge and skills is further noted in the DES's vision for ICT integration in Irish schools (DES, 2015: 5). It suggests the possibility of digital learning to be used to engage thinking and to increase motivation for learning (2015: 5). Reflection on the theory enabled me to clarify that I place importance on the role of technology-mediated personalised learning in providing the potential to enhance learner outcomes such as motivation and ultimately, student agency.

In a similar vein, the Draft Primary Curriculum Framework identifies seven key competencies for learning (NCCA, 2019). As stated by the NCCA, “the competencies enable and foster deep learning while also contributing to the holistic development of the child” (NCCA, 2019: 27). Significantly, ‘Being a Digital Learner’ is included as one of the key competencies (NCCA, 2019: 8). This suggests that the experience of being a digital learner positively impacts motivation as it enables a holistic view in which autonomy, relatedness and competence are focused on. In this way, self-determination can be fostered in the students, thereby enabling the learner outcome of increased motivation for learning (Deci & Ryan, 1985). Upon reflection of what this means for my study, I could see the potential for empowerment; one of my core values.

I critically reflected on the literature which explored the role of technology in enhancing motivation. In relation to the teaching of reading comprehension specifically, Shanahan notes the importance of choosing approaches that support student motivation (2019: 32). I realised it was significant for my research as it enabled me to better understand my role as the teacher in enabling high-quality personalised learning experiences. Furthermore, it heightened my understanding of the potential for the students to become active agents of change in their own learning. This awareness assisted me in the generation of codes during the data analysis phase of my research. Subsequently, it enabled me to identify the second theme in my data, namely ‘Student as Agentic Learner’. Links between the theory and my own findings in this regard will be explored in Chapter Four.

2.4.4 Multimodality: A Universal Design for Learning

During my intervention, I incorporated what I now realise is a core element of the UDL framework (CAST, 2018) in my approach; multimodality. Millwood (2012) describes

multimodality as “the capacity for learners to use multiple media through ICT”. During my research intervention, the students could choose from a variety of different text types and media when engaging with the reading comprehension task. A wide range of media were also made available to the students as they decided how best to represent their learning.

It is important to note that it was through critical reflection, rather than an awareness of the UDL framework from the outset, which led me to discover that technology can offer the students multiple modes of engagement, representation and action during personalised learning (CAST, 2018). However, the literature on UDL helped me to articulate this understanding more clearly.

UDL is a set of principles which focus on adapting the curriculum to suit all learners (CAST, 2018). Particular focus is placed on the possibilities of technology to facilitate inclusion for all learners. It is underpinned by research in the field of neuroscience. Barriers to learning are minimised by promoting student-led learning, whereby each individual can make choices and take actions to fully participate in their own learning.

UDL breaks learning down into three separate parts; engagement, representation and action or expression (see Figure 2.4 below). Flexible methods, materials and assessments that accommodate learner differences are core elements of UDL (CAST, 2018). In this way, personalisation of the learning environment is enabled, with improved learner experiences and outcomes emerging as a possibility.

Whilst my awareness of the UDL concept came about during the course of my analysis of the data, I realised that I naturally incorporated elements of the framework into my research

design. I can see my values reflected in this approach to enacting personalised learning. Critical reflection and engagement with the literature enabled me to become aware of the UDL framework and its subsequent potential to assist in placing a structure on personalised learning.

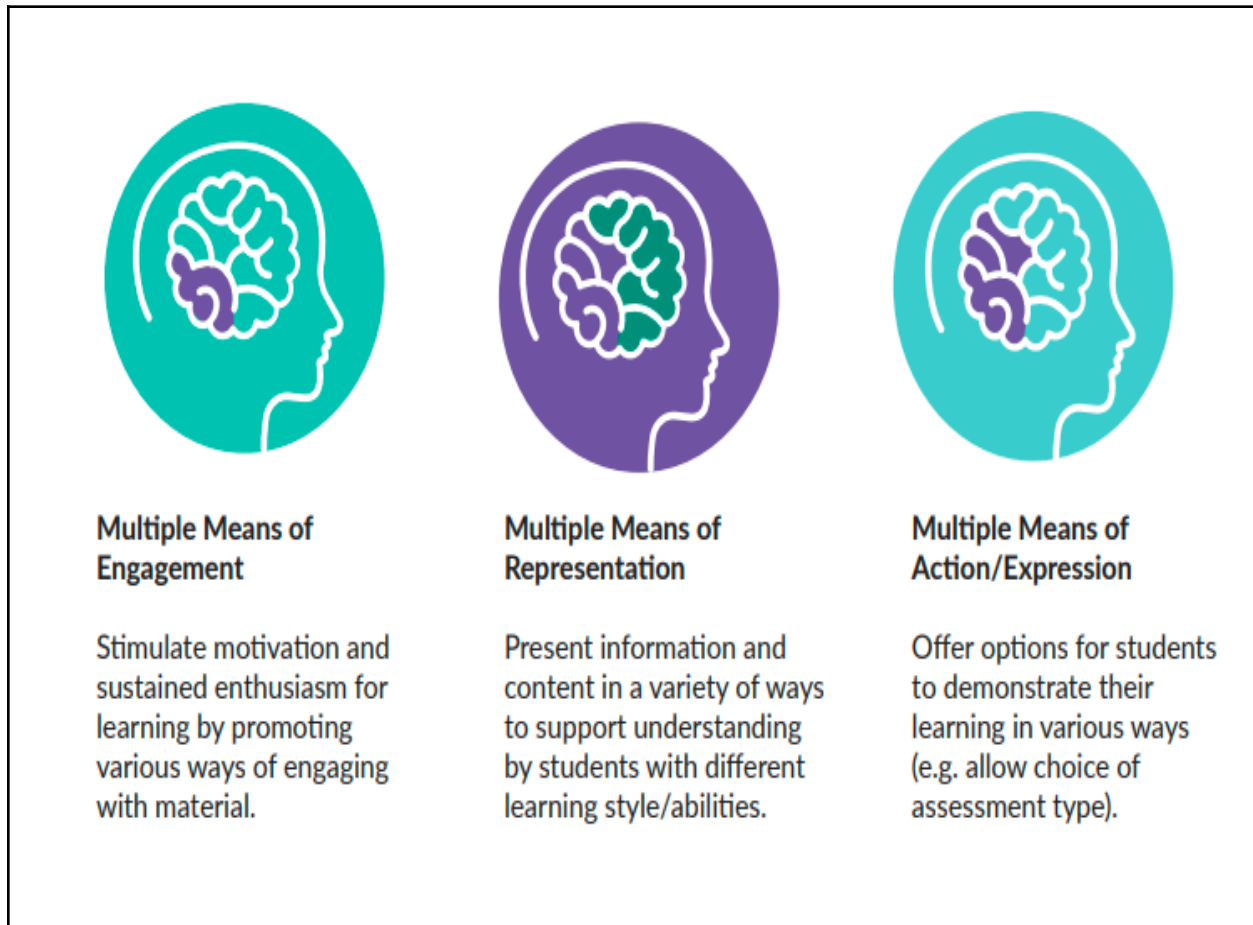


Figure 2.2: The Three Elements of UDL

Source: Digital Strategy for Schools (DES, 2022: 28).

2.5 Personalised Learning in the Irish Context

As discussed in Chapter One, my creativity for teaching was negatively impacted due to my overfocus on implementing the Covid safety measures in my school context. This reality, coupled with a sense of confusion for what personalised learning should look like in my context,

caused me to shy away from adopting a personalised approach to reading comprehension. An examination into DES policy in the context of personalised learning supports my experience of this marked confusion (DES, 2011; DES 2015; DES 2016; DES 2021, GOI 2021a).

2.5.1 The Need for a Holistic View

In order for ICT to be successfully embedded into teaching and learning, Butler et al. (2018) suggest that the education system should be looked at in a holistic manner. Whilst the success of Irish policy makers in utilising the UNESCO ICT framework in the development of the Irish Digital Strategy is mentioned, Butler et al. (2018) highlight the need to integrate such strategies into the goals and visions of the education system. This, I agree, would allow for a more cohesive approach to digital-based, personalised learning in the Irish primary education context.

Interestingly, evidence of an increasingly connected learning ecosystem can be evidenced in the Statement of Strategy 2021-2023 (DES, 2021: 96). This correlates with Butler et al.'s (2018) assertion that careful consideration of the educational values and mission framework, in addition to the use of the UNESCO framework, can provide leverage for transformational change (Kozma, 2008).

Furthermore, in relation to the primary language curriculum, the NCCA refers to the challenge of needing to develop children's digital and critical literacy whilst also supporting children to develop positive dispositions towards language and literacy (NCCA, 2019: 4). This suggests a more integrative understanding of personalised learning which incorporates digital-based learning organically. This understanding on personalised learning is shared by Järvelä (2006), Porath and Hagerman (2021) and Schmid et al. (2022).

2.5.2 Looking at Our Schools Document

The term personalised appears twice in the Looking at our Schools document, both times referring to the teaching and learning domain of the teacher's individual practice (NCCA, 2016). Interestingly, personalised learning is used as a marker to differentiate between statements of effective and highly effective practice. This suggests that the DES consider personalised learning as a form of highly effective teaching. However, I believe that a clear definition of what this includes in the Irish context is necessary. Otherwise, as argued by Herold (2017: 5, cited in Bernacki et al., 2021: 1687) "unresolved pedagogical tensions" will undermine the very fabric of personalised learning. Furthermore, Wolfe and Poon (2015) assert that this lack of specificity undermines a teacher's ability to deliver meaningful learning experiences to their students. This is reflected in my own experience also.

2.5.3 Digital Strategy for Schools

At the core of the most recently published Digital Strategy for Schools is "the continued approach of pedagogy first, technology second" (DES, 2022: 22), whereby technology is used because it adds value to the teaching and learning process rather than acting as a passive tool which replicates traditional practices. This was previously outlined as one of the aims of my study in Chapter One. The Digital Strategy elaborates on this objective, noting the central role of the teacher in supporting the learner and in providing clear guidance so that inclusion, equity and learner participation can be enhanced (DES, 2022: 21).

Within the Digital Strategy (DES, 2022), the UDL model (CAST, 2018) is advocated as a framework which can support the teacher in using digital technologies to facilitate

personalisation and inclusion (DES, 2022: 28). This gives me hope that much needed clarity in enacting personalised learning in the Irish context is forthcoming. It further highlights how teachers' increased ease of access to digital technologies is impacting the move towards greater personalisation of learning (Plass & Pawar, 2020).

2.6 The Role of the Teacher in Personalised Learning

2.6.1 Providing Freedom with Guidance

The role of the teacher in personalised learning can be situated in relation to Froebel's emphasis on the importance of a child-centred approach. As cited in Bruce (2012: 30), Froebel stated "begin where the learner is, not where the learner ought to be". Froebel also embraced the individuality of every child, emphasising how they are each a valued member of a family, the community and also the universe (Bruce, 2012). As described in Liebschner (1991), the Froebelian approach supports the pupil to create their own ideas and meaning whilst also being cognisant of the child's value in the community. The influence of Froebel's philosophy of education is evident in personalised learning, whereby the role of the teacher is to ensure freedom with guidance.

2.6.2 Teacher as Facilitator

Significant for my research, Kember (1997) describes personalised learning as an orientation in teaching whereby the teacher acts as a facilitator in the learning process. In order for personalised learning to occur, Rogers identifies the importance of the teacher experiencing "essential trust in the capacity of others" to think and to learn for themselves (1983: 188). He also highlights the need for the teacher to be secure in themselves, in their relationships with

others and also for the teacher to be perceived as a figure of authority (1983: 188). The choice of term “caring facilitator” to describe the role of the teacher in the 1999 Irish Primary Curriculum Introduction (GOI, 1999: 20) suggests Rogers’ (1983: 188) mention of ‘authority’ no longer holds the same importance as it once did in education.

In relation to my own study, I used my professional judgement and agency to adapt to the situation rather than to simply act with authority. This ensured my values were present in my actions as a teacher during the personalised learning experience. The significance of my decision to focus on care and critical reflection when adopting personalised learning will be explored in Chapter Four. In this section, I will analyse how both my values and the literature on the role of the teacher impacted how I understood my role during my research intervention.

2.6.3 Interpersonal Skills

Wolfe and Poon (2015) propose four key educator competencies in their framework for personalised learning. The competencies are organised into four domains; cognitive, instructional, interpersonal and intrapersonal. Their framework proposes that the role of the teacher encompasses the need-to-know key subject matter content, to have an understanding of human and brain development, to be adept at fostering beneficial relationships with students, to have clear expectations and also to bring distinctly learner-centred pedagogical techniques into the classroom (Wolfe & Poon, 2015). In light of the small scale of my action research study, I chose to focus on the interpersonal domain. This was influenced by my value of care, in addition to critical reflection on how I could enhance my teaching of reading comprehension.

Similar to Kember (1997) and Wolfe and Poon (2015), Porath and Hagerman (2021) identify the importance of the teacher acting as a guide in the academic and personal development of the learner. They note the role of the teacher in fostering learning that is purposeful and in making available a curriculum that is exploratory, suitably challenging and diverse (Wolfe & Poon, 2015). The recently published Digital Strategy for Schools (DES, 2022) further notes the important role which the teacher plays in enabling personalised learning, highlighting the need to provide clear guidance and support for students as the learning becomes increasingly student-led (DES, 2022: 23). This influenced my decision to purposely incorporate a gradual release of responsibility into my approach to adopting personalised learning.

2.7 The Role of Teacher Identity and School Context in Enabling Personalised Learning

In Chapter One I discussed how my previous experience working in a school with a negative culture impacted my awareness of my values. The mismatch between my values and that of my former school became clearer to me upon critical reflection. Assisted by my engagement with a Postgraduate Diploma in Leadership course, I realised that the absence of psychological safety (Schein, 2004) in my school environment at that time had impacted my sense of identity as a teacher. This experience provides a context as to my interest in the concept of both teacher identity and agency in relation to personalised learning.

In this regard, I was interested to read Day and Gu's (2007) longitudinal research study on teacher identity. This study found that teacher identity is influenced by external factors, most notably the school context in which the educator works. In order for personalised learning to achieve its aims on a school wide basis, my analysis of the relevant literature is that teachers

need psychological safety (Schein, 2004) to be enabled to take risks, to collaborate and to push-back (Buchanan, 2015) if necessary.

This analysis is supported by Bernacki et al. (2021) and Wolfe and Poon (2015), whose comprehensive research illuminates the link between school culture and the subsequent impact or lack thereof when using personalised learning as an approach. This is further highlighted in the research by McClure et al. (2010) and Zmuda et al. (2015). Shaped by the literature, in addition to my previous experience, I acknowledged that my new school's positive culture had impacted my ability to renegotiate self-understanding as I attempted to enhance my teaching of reading comprehension (Buchanan, 2015).

Relating to this, Buchanan describes how a "professional identity" is constructed by teachers within their school context (2015: 704). This identity is then used by the teacher to take actions they believe align with that construction. In relation to personalised learning, I can now appreciate why personalised learning is so difficult to define universally; the potential for its implementation is as varied as the school culture in which the approach is adopted. As a result, it can be stated that the degree to which a teacher will be enabled to enact personalised learning is dependent, in part, on their school context.

I struggled to find a solution to this critical problem during reflection on and engagement with my research. However, through an analysis of my data, the role of teacher agency in enabling personalised learning emerged. This will be explored in Chapter Four. It will also be revisited in Chapter Five, in which I recommend areas for future consideration in relation to personalised learning.

2.8 The Impact of Covid-19 on Approaches to Personalised, Digital-Based Learning

Major et al. (2020) and Epps et al. (2021) note how the Covid-19 context has accelerated the integration of educational technologies into teaching and learning. This is reflective of my own experience. In relation to my research study, the acceleration of educational technologies during the Covid-19 school closures impacted my decision making with regards to which digital tools I chose to incorporate. Critical reflection on this during the design phase of my research led me to use digital libraries and content creation software which the children were previously familiar with.

Major et al. (2020) further suggest that teachers should now be well placed to transfer their experiences of using digital-based personalised learning during school closures to the classroom context. Whilst this is true in my particular context at this time, a wide number of variables exist and must be navigated in order for this claim to come to fruition. One such example, as explored earlier in this chapter, is the potential for the school context in which the learning takes place to impact this transfer of learning.

Fisher et al. (2020, cited in Epps et al., 2021) concede that the remote teaching of 2020 was 'crisis teaching', which is not an authentic base on which to explore teachers' approaches to digital based teaching and learning. Hall et al. (2021) accede that we may well be in the:

initial stages of a revolution that will fundamentally redesign the educational landscape we are familiar with, and in ways that have not even been imagined yet (Hall et al., 2020: 439, cited in Epps et al., 2021: 179).

This would have far-reaching implications for the future of teaching and learning, meaning that teachers, children and parents would need to be prepared with the skills and knowledge to navigate this landscape.

In relation to the relevance of this for enabling personalised learning, I found it interesting that the content of the Preparation for Teaching and Learning Guidance Document (GOI, 2021a) displays a commitment towards greater fluidity and flexibility in relation to teaching and learning. Of note is the inclusion of teacher agency in the Guidance Document (GOI, 2021a), something which has been identified as essential for true personalised learning to occur (Day & Gu, 2007; Wolfe & Poon, 2015; Bernacki et al., 2021). The Guidance Document specifically states that:

Teaching and learning in action is fluid and flexible and teachers often embrace unexpected and emerging learning opportunities that arise (GOI, 2021a: 6).

In relation to my research, I found this flexibility to be an important element of my approach to adopting personalised learning. The importance of teacher agency, as implicitly acknowledged in the Guidance Document (GOI, 2021a), will be discussed in Chapter Four.

With this implicit acknowledgement of affording teachers greater agency in their approach (GOI, 2021a), perhaps a redesign in the educational landscape could in fact be realised; one in which personalised learning has the potential to gain greater traction. Current DES policy appears to point in this direction; the curriculum is adapting from a content objectives-based curriculum framework towards a learning outcomes based model. Emphasis is placed on the

development of skills, attitudes and values rather than a narrow focus on knowledge acquisition as the definition of successful learning.

2.9 Reading Comprehension

2.9.1 Reading Comprehension Defined

Snow (2002: 5) defines reading comprehension as a “process of simultaneously extracting and constructing meaning through interaction and involvement with written language”. Shanahan (2019) validates Snow’s definition by acknowledging that it recognises both the reader and the text as significant. Pardo (2004) offers a very similar definition but also includes the need for the reader to use their previous experience, prior knowledge, information in the text and their own attitude towards the text. Bowe et al. (2012) further note the interaction between the reader and the text, in addition to the context.

A meta-analysis study by the National Early Literacy Panel (2008) found evidence that oral language was a powerful predictor of comprehension. This suggests the importance of vocabulary development and discussion opportunities in relation to the development of reading comprehension. The Primary Language Curriculum (NCCA, 2019: 16) mentions listening comprehension as “critical to the child’s development of vocabulary”. As a result, comprehension and expression are developed as reciprocal skills in the Primary Language Curriculum (2019: 16). Thus, for reading comprehension to be successfully developed, it needs to be cognisant of both the reader and the text. In relation to this particular study and personalised learning approaches, the research highlights the need to provide the learner with

opportunities to interact with the text, for example as part of a discussion, in addition to providing opportunities to read their chosen text.

2.9.2 Building Bridges of Understanding Resource

The benefits of explicitly teaching reading comprehension strategies are widely reported (Rupley et al., 2009; Bove et al., 2012; Shanahan, 2019). Shanahan (2019: 21) defines reading strategies as “intentional actions taken by a learner to try to enhance remembering, understanding and problem solving”. In this regard, Mary Immaculate College, Limerick were instrumental in the creation of the Building Bridges of Understanding resource for teaching comprehension strategies in the Irish context (Bowe et al., 2012). The programme maintains that teachers should introduce the nine cognitive strategies of effective readers in order to systematically improve learning outcomes.

The nine strategies included in the programme are as follows (Bowe et al., 2012); predicting, visualising, making connections, questioning, clarifying, declunking, determining importance, inferring and synthesising. NEPS (2019: 15) note that the Building Bridges of Understanding resource is “excellent” for “teaching comprehension strategies at a whole school level”. As this evidence-based resource is currently the resource used in my school to complement the teaching of reading comprehension strategies, the various strategies were incorporated into my teaching approach. I focused explicitly on the teaching of the ‘making connections’ strategy during my action learning cycle. Rupley et al.’s research (2009) found that explicitly modelling instruction in this way resulted in a higher likelihood for struggling readers to learn essential reading skills and strategies.

2.10 Conclusion

This critique of the literature pertaining to personalised learning and the role of digital-based tools in its implementation has provided an insight into the benefits, important considerations, constraints and difficulties with embedding this approach in the modern Irish primary school. The impact of educational policy, technology, school culture and teacher agency in the Irish context situated the personalised learning approach as a multilayered construct which requires a clear rationale, goals, collaboration and an element of risk-taking in order to achieve successful outcomes. The research provides a clear rationale for the implementation of personalised learning in education.

However, in the absence of both a universally and nationally agreed upon definition or framework, it is suggested that a school wide discussion be carried out in the interim with regards to the characteristics of personalised learning for that context. This would provide much needed clarity and increase the potential to quantify and subsequently enrich the learners' experiences and academic outcomes.

Chapter Three: Methodology

3.1 Introduction

Chapter Three outlines my choice of methodology, placing my enquiry in the action research paradigm. The starting point for my research centres on my ontological, epistemological and educational values (McNiff, 2010: 12). In this chapter, I will provide a rationale for my choice of a participatory action research (PAR) approach, exploring how it enabled me to unpack my research question of facilitating a personalised approach to the teaching of reading comprehension. I will also outline the design of my action learning cycle. Data collection tools which were used will also be examined, highlighting the advantages and limitations of each. Ethical considerations which were taken into account during data collection will be discussed. To conclude, I will address how I approached the thematic analysis of my data and how this learning helped to shape the criteria and standards of judgements which I used to measure my contribution to both practice and knowledge (McNiff & Whitehead, 2011).

3.2 Research Question

The research question for my study has evolved as a result of much critical reflection on my teaching of reading comprehension. By intentionally scrutinising the assumptions that inform my teaching practice, my ontological values of care, trust and empowerment have become much clearer. With these values to the fore, I considered how hegemonic practices and the power dynamics of my role as teacher led me to engage in activities which I in fact need to challenge (Brookfield, 2017). I realised that I was a 'living-contradiction' (Whitehead, 1989) as I claimed to value trust and empowerment, yet during reading comprehension lessons I found myself

providing my students with teacher-chosen reading comprehension texts and questions which did little to inspire personal interests and motivation towards life-long learning. Where was the learner-centred, interest-led choice and personalisation in the learning?

As acknowledged in my reflective journal entries, my epistemological assumption that knowledge is created needed to be lived out in my practice. This led me to design my research question, ‘how can I use personalised, digital-based learning to enhance my teaching of reading comprehension?’. This particular title evolved over time as I experienced the professional development from this research to be ‘authentic, purposeful, and reflective’ (Killingsworth Roberts et al., 2010: 259).

3.3 Participatory Action Research

My study adopts an action research approach. This is defined by Cohen and Manion (1994; cited in Cohen et al., 2007: 316) as a “small-scale intervention in the functioning of the real world and a close examination of the effects of such an intervention”. For the purpose of this research journey, I specifically chose a participatory action research approach. I favoured this approach as it enabled the process to be determined by the participants, rather than the research process. This is in line with my values of care, trust and empowerment.

Herr and Anderson (2005: 6) maintain that the researcher’s chosen definition for action research will impact upon the epistemological, ethical and political decisions made throughout the study. As a result, I believe it is important as a researcher to make clear my own understanding of what I define action research as. In this regard, Whitehead’s definition of PAR as “an approach to research in communities that emphasizes participation and action” (2019: 5)

holds significance for me. I chose PAR due to the focus on collaboration, collective inquiry and experimentation which is grounded in experience and social history. I value how the process of action evolves over time, with the participants working together as co-researchers and co-subjects (Whitehead, 2019).

Based on my decision to focus on PAR, I have ensured to take particular care to research and consider the theory on personalised learning, to reflect and meta-reflect on my own thoughts and actions both on and in action, to seek advice and opinions of critical friends and to afford great care, trust and equal status to the role of the student participants in helping to shape the research journey path as it evolved. As suggested by Habermas, I ensured to reach “intersubjective agreements, mutual understandings and uncoerced consensus about what to do” (2003: 290).

3.4 Data Collection

3.4.1 Qualitative Data

Drawing comparisons with Cohen et al.’s (2018: 288) description of the social and educational world, I experience teaching and learning as taking place in a complex, multi-layered world intertwined with connectedness. This awareness, coupled with my epistemology that knowledge is created and not simply *given* by those in authority, led me to choose qualitative data as the most appropriate for the purpose of my research study. The participative focus within PAR also acted as “a form of social inquiry” (Hammersley, 2013: 12).

There were opportunities to source qualitative data from a variety of perspectives which provides evidence of how my pupils, myself and others collectively engage in the process as

co-researchers and co-participants (Sullivan et al., 2016). In this regard, qualitative data offered the potential to “understand situations in their uniqueness as part of a particular context and the interactions there” (Patton, 1985 cited in Merriam, 2002: 5).

The qualitative approach was also favoured in this study as it affirmed the pivotal role of subjectivity in the research process. Rather than viewing such a quality as potentially biased, my values became the underlying basis on which I generated and interpreted the data (Baumfield et al., 2013). Privilege was afforded to meaning-making during the analysis of the data, whereby I strived for “depth of understanding” (Patton, 1985 cited in Merriam, 2002: 5). This had powerful, far-reaching possibilities for developing who I am and what I do as an educator. With a clear purpose and rationale for my choice of qualitative research (Preissle, 2006: 686), I was then enabled to draw on my direct experience and focus on meaning-making in order to improve my teaching of reading comprehension and my facilitation of personalised learning experiences.

3.4.2 Data Collection Sources

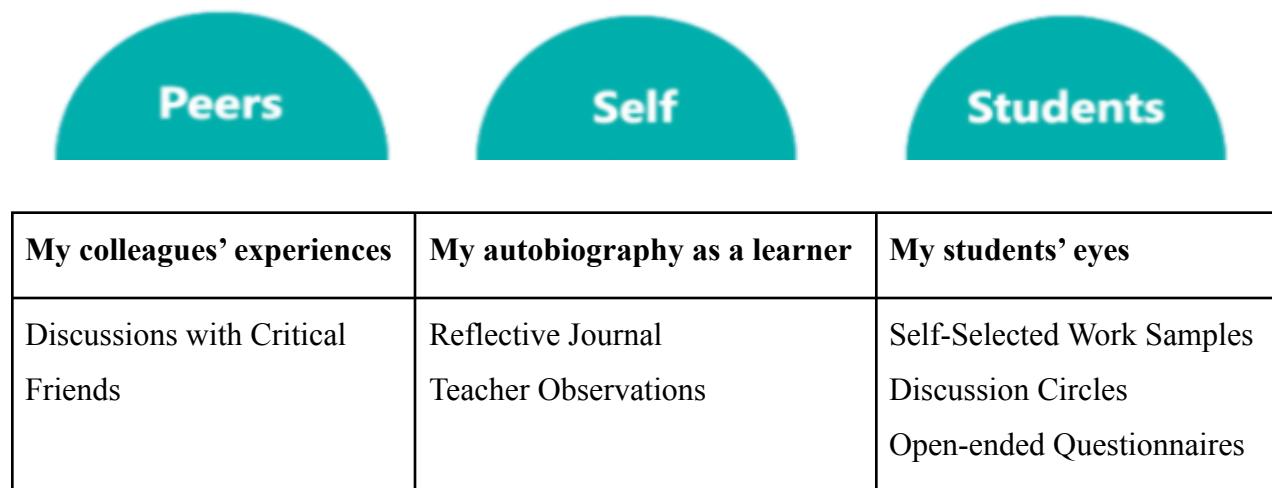


Figure 3.1: Data Collection Sources and Tools

The qualitative data for this study was gathered from three main sources, as illustrated in Figure 3.1. My data collection sources were considered and chosen in line with my values, reflections and learning from the theory concerned with personalised learning.

I have noted and acted upon the need to steer the data for my self-study action research project towards a more participatory approach. This was in response to the specific wording of my research question, asking how I can *enhance my teaching of* reading comprehension. From the outset, I decided against focusing on quantitative data which could serve to ‘measure’ reading progress, but rather looked towards a more holistic view which focused on students’ levels of engagement and their own perceptions of success as a result of the learning process. I wanted to ensure my data collection sources and tools reflected this.

In order to gain insight into my students’ experiences of the process, I included discussion circles, open-ended questionnaires and the self-selection of work samples. With regards to critical friends, I was guided by their observations and discussions on my implementation of the personalised learning intervention. The participatory nature and inclusion of a variety of data sources allowed for triangulation of the data, something which Cohen et al. (2018: 266) note as “suitable when a more holistic view of educational outcomes is sought”. This ensured true collaboration and meaningful knowledge which was then used to “generate evidence to provide the grounds for an eventual claim to knowledge” (McNiff, 2013: 89).

3.5 Data Collection Tools

3.5.1 Group Discussion Circles

Discussion with Critical Friends	Student Discussion Circles
<p data-bbox="203 514 727 550">Informal discussions with critical friends</p> <ul data-bbox="251 625 799 772" style="list-style-type: none"> <li data-bbox="251 625 799 772">- Informal discussions throughout the process to “provide support as well as constructively challenge and critique” (Sullivan et al., 2016: 27). 	<p data-bbox="824 514 1414 583">Daily guided discussions as part of the lesson layout.</p> <ul data-bbox="873 625 1419 877" style="list-style-type: none"> <li data-bbox="873 625 1419 695">- Reflection in action depending on the input of students as co-participants. <li data-bbox="873 730 1419 877">- Exploring the process and experiences of personalised learning - choice / needs / interests / voice / motivation / technology.

As this study focused on PAR, it was essential to choose data collection tools which allowed for me as a researcher to participate *with* my co-participants and which ensured validity, building alliances and actively working together to inspire change (McIntyre, 2008). In this regard, Schein (2010) advocates for the adoption of a problem-solving approach in order to create a culture in which psychological safety is present and where real changes can be achieved. This led me to include consistent, frequent group discussion circles as an element of the personalised learning lessons with my students. Additionally, informal discussions with critical friends were also used throughout the intervention, with such data recorded and reflected on in my reflective journal. In this way, my research question was informed by different perspectives (Baumfield et al., 2013: 96) and importantly, change could occur as a “constant process” (Puccio et al., 2011: 4).

Through the facilitation of opportunities for dialogue and problem-solving with co-participants, opportunities for double-loop learning emerged, as participants thought more

deeply about their own experiences, assumptions and beliefs (Argyris & Schon, 1974). Feedback loops were facilitated (Baumfield et al., 2013: 96), which allowed for my students' and colleagues' perspectives of teaching and learning to inform, validate and improve the research project as it progressed. Dialogue focused on the participants' experiences of personalised learning whilst also providing the time to reflect, problem-solve and to feel connected to the research study. This ensured the what and the why of personalised learning could be collaboratively explored. Baumfield et al.'s diagram below (Figure 3.2) summarises this process (2013: 96).

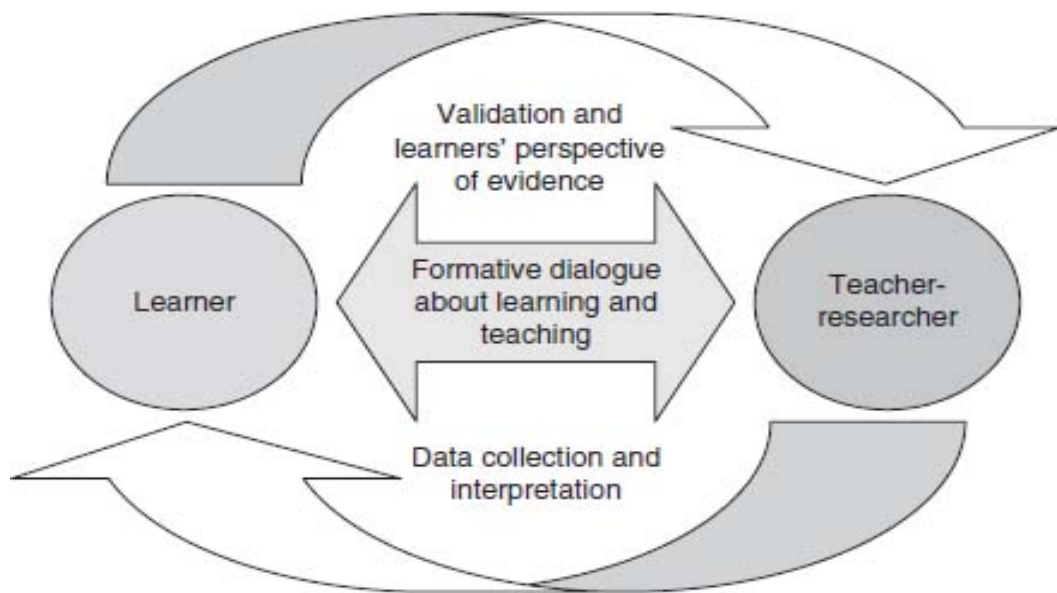


Figure 3.2: Diagram of how Pupil Consultation can Support Formative Feedback Loops

(Baumfield et al., 2013: 96)

3.5.2 Teacher Observations

Daily

- Added to clipboard type observation sheet (as per usual lesson format) and to teacher reflective journal.
- Teacher shares positive, specific feedback / observations with pupils to promote motivation (Fisher, 1978; Ryan, 1982 cited in Gagné & Deci, 2005).

Whilst noting and recording observations, I took care to ensure validity in my research by adopting a clear role as a participant observer. This is suggested by Marshall and Rossman (2006). As such, I used a teacher observation template page for each of my three groups, attached to an A4 clipboard. There was a semi-structured section and an unstructured section on which to record (Cohen et al., 2018). The rationale for including a semi-structured observation section was so I could consciously use the three essential components of Deci and Ryan's self-determination theory (1985); autonomy, relatedness and competence. I used the three aforementioned headings so I could record examples of the students' needs for competence, connection and autonomy being fulfilled. Following on from this, I could note any observations in relation to the impact on my students' motivation levels, whether positive, negative or indifferent. This enabled me to incorporate my value of empowerment in my approach.

With regards to unstructured observations, these were not pre-planned. This approach to observation is reflective of my usual lesson structure, one which the children were already aware of and familiar with. The rationale for staying with this approach was to ensure validity by eliminating variables which could influence what is being observed (Newby, 2010).

In relation to how I used my teacher observations, studies by both Fisher (1978) and Ryan (1982) found that positive feedback “facilitated intrinsic motivation by promoting a sense of competence when people felt responsible for their successful performance” (Fisher, 1978; Ryan, 1982 cited in Gagné & Deci, 2005: 332). Furthermore, Deci and Ryan’s (1985) self-determination theory suggests competence as one of the three basic psychological needs to motivate the self. As a result, I used and shared my teacher observations in a transparent manner during personalised check-ins as the lessons took place, sharing positive, specific feedback with my co-participants. My decision to use my teacher observations in this way also supported me to live in line with my values of care and empowerment. This approach is also reflective of how I would usually give feedback to pupils during lessons. My observations were used as data to reflect on when recording entries in my reflective journal.

3.5.3 Reflective Journal

Daily reflections recorded in reflective journal

- Meta-reflections: exploring and labelling past reflections according to key themes.

Brookfield (2017: 7) suggests that the best way to unearth our teaching assumptions is to use the four lenses which are available to us; “student’s eyes, colleagues’ perceptions, personal experience and theory and research”. In line with the self-study approach, my reflective journal tracked the story of my personal learning journey as it evolved. It demonstrates changes in my thinking as the research progressed and an insight into the process as it unfolded (Sullivan et al., 2016). In order for this data to become as rich and useful as possible, I engaged in

meta-reflection, adding new updates, data and themes to my learning as I generated evidence “to provide the grounds for an eventual claim to knowledge” (McNiff, 2013: 89).

As previously noted in Chapter Two, Whetten and Cameron (2016: 471) speak about the importance of frameworks acting as a means to provide order during the process of change. In this regard, I found the use of Kolb’s (1984) experiential learning cycle (Figure 3.3 below) helpful to guide me and to provide a loose structure for the reflective process. By reviewing my experiences I began to generate a theory for my practice, to engage in what Kolb (1984) labels as the ‘abstract conceptualisation’ phase.

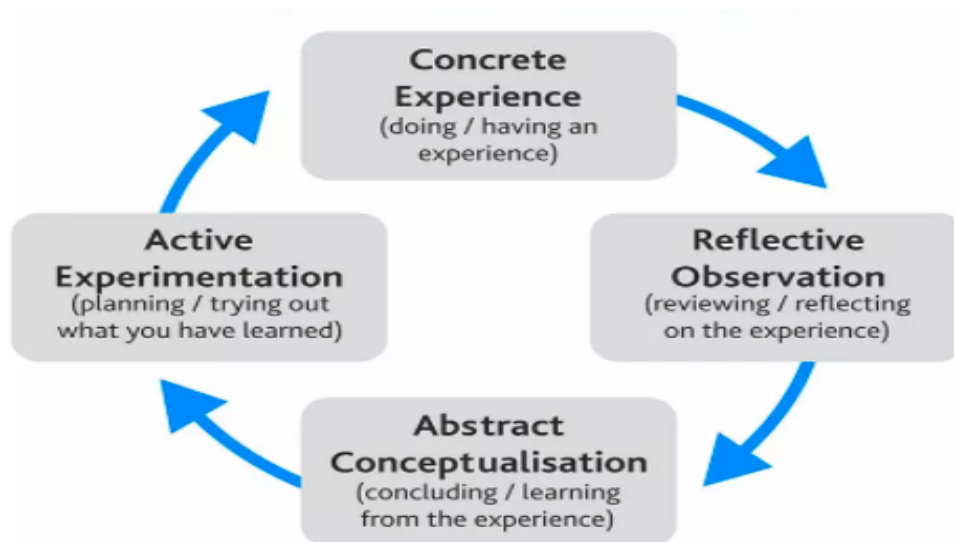


Figure 3.3: Kolb’s Experiential Learning Cycle (1984)

3.5.4 Open-Ended Student Questionnaires

Pre and post intervention, open-ended questionnaire.

Pre:

- Interests
- Experiences of reading comprehension lessons in school.
- Understanding of personalised learning.

Post:

- Exploring experiences of personalised learning during reading comprehension lessons: choice / needs / interests / voice / motivation / use of technology.
- Understanding of personalised learning.

Students engaged with two open-ended questionnaires relating to their experiences of personalised, digital-based learning of reading comprehension. Questions were designed with the thematic elements and components of personalised learning in mind (Bernacki et al., 2021). There was one pre-intervention and one post-intervention questionnaire, both filled in using Google Forms as the students were already familiar with this platform.

An open-ended, unstructured format was chosen as it gave a sense of the participants' own voice and opinion (Newby, 2010). Unstructured questions do not impose a response framework on the participant. They allow for the participants to communicate their own voice on their experience. This was important to me as a researcher as it aligns with my values.

I also adopted the questionnaires in this way as it allowed me to ensure what Winter describes as "authenticity" (2002: 145). Winter suggests this increases validity as "it gives direct expression to the genuine voice" (Winter, 2002: 145 cited in Sullivan et al., 2016: 102). Thus, I could ensure validity in my decision to use open-ended questionnaires.

The questionnaires were anonymous and completed asynchronously to ensure each participant had adequate time to consider their responses carefully. Hewson (2014) states that by making the questionnaire anonymous, it offers the participants an opportunity to stray from “standard, accepted normative views”. In the interests of power dynamics and the already small sample size, I felt it was important to afford the students anonymity. This increased validity as it ensured reliability and credibility in my data collection (Sullivan et al., 2016: 102).

3.5.5 Student Work Samples

A minimum of 2 student-selected work samples (added to a Google Drive folder).
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Student participants self-selected a minimum of two work samples which served as a record of their learning during personalised reading comprehension lessons. Through group discussion circles, the rationale for choosing the samples was explored. The students were also invited to add a short reason as to why they chose each particular piece. Work samples were added to a Google Drive folder as the students were familiar with this platform.

My decision to include student-selected work samples and an accompanying reason for the selection as part of my data was due to my focus on PAR. As a result, it was appropriate to use a data collection tool which ensured participation by the students during the data-gathering process. By giving my students the responsibility to choose their samples, I could ensure validity as this incorporates the principle of methodological robustness. This is described by Sullivan et al. (2016: 104) as an appropriate criteria for increasing validity during participatory research.

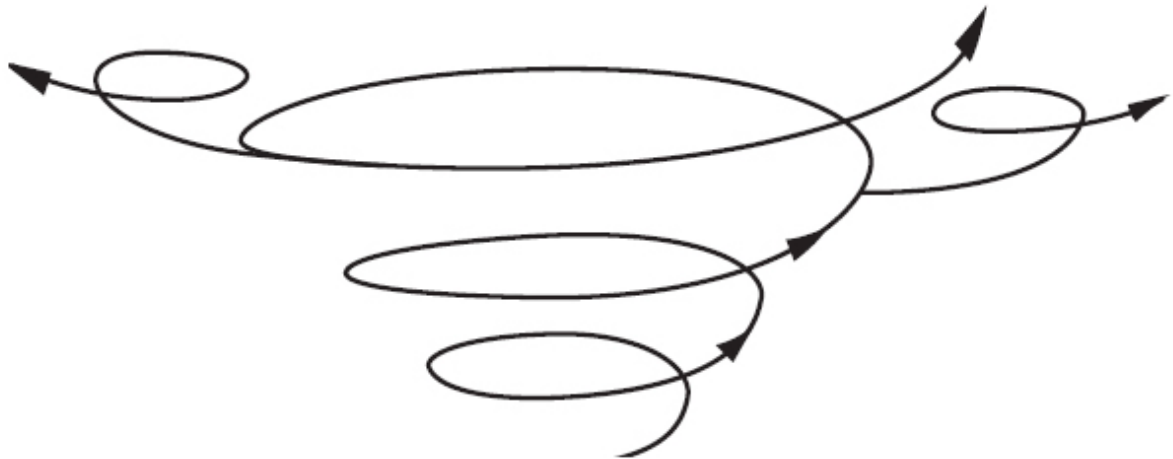
3.6 Research Design and Plan

3.6.1 Design of the Action Research Cycle

Key Goals of Participatory Action Research		
1. To produce practical knowledge	2. To take action and make the knowledge available.	3. To be transformative both socially and for the individual who takes part.

Figure 3.4: Three Key Goals of PAR (Schneider, 2012: 153)

In keeping with the key goals of PAR (Figure 3.4 above), I was aware of the need to be open and flexible to changes during the action research cycle based on the input of my students and peers as co-participants. As a result, I made the decision to model my action research cycle on that of McNiff et al. (1996), with the possibility of making small tweaks and amendments as the process unfolded (represented in Figure 3.5). As Kemmis et al. (2014) outline, having an evolving spiral enables the research to be determined by the participants rather than by the research process. Whilst having a plan assisted the implementation of my research, I was cognisant that action research does not occur in a linear process and at no stage is an endpoint guaranteed (Mertler, 2006). This design gave me the opportunity to probe deeply into the research question (Cohen et al., 2018) in order to “capture the complex reality under scrutiny” (Denscombe, 2007:45).



Observe →	Reflect →	Act →	Evaluate →	Modify →	Move in new directions
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Figure 3.5: An Evolving Action-Reflection Cycle (McNiff & Whitehead, 2006)

3.6.2 An Overview of my Action Research Cycle

See Appendix T for my original ten-week action research cycle plan. The ten-week cycle presented below evolved in response to the following; input from my students as co-participants, personal reflection and discussions with critical friends during the process.

Timeline	Outline of Intervention
Weeks 1 - 3	<p>Intervention Stage 1: Exploring</p> <ol style="list-style-type: none"> 1. Students completed a pre-intervention questionnaire. 2. Initial group discussion and teacher input on the what, how and why of personalised learning 3. Collaboratively created an Anchor Chart for personalised learning. 4. Direct teaching of how to navigate the online library (Epic) to source a

	<p>text which appealed to each student's interests, needs and preferences.</p> <p>5. Direct teaching of digital skills required to be enabled to record learning. Content creation tools explored: Google Docs, Jamboard, Bookcreator.</p> <ul style="list-style-type: none"> - Specific functions taught: Creative commons image search, how to use content creation tools- voice typing, draw feature and recording feature.
<p>Weeks 4 - 7</p>	<p>Intervention Stage 2: Doing</p> <ol style="list-style-type: none"> 1. <i>Introduction:</i> Mini Lesson - 'Making Connections' (direct instruction). <ul style="list-style-type: none"> - Explicit modelling of 'Making Connections' skill led by teacher. 2. <i>Development:</i> Students were provided with a learning goal linked to 'Making Connections' skill. Students chose a text and a format to represent their learning according to their interests, needs and preferences. Teacher scaffolded as required and provided feedback. 3. <i>Conclusion:</i> Time to reflect on learning - Discussion Circle. <p><i>Other:</i></p> <ul style="list-style-type: none"> - Critical Friend Group Discussion
<p>Weeks 8 & 9:</p>	<p>Intervention Stage 3: Reviewing</p> <ol style="list-style-type: none"> 1. Students reviewed their learning tasks and took time to complete / edit their work as necessary. <ul style="list-style-type: none"> - Students chose two completed tasks to add to their learning portfolio and they added a reason for each choice. <p><i>Other:</i></p> <p><i>Critical Friend group discussion (Week 9)</i></p> <ul style="list-style-type: none"> - Discussed recurring themes in the data and critical friend perspectives on the approach / perceived findings.

Week 10:	<p>Intervention Stage 4: Reflecting</p> <ol style="list-style-type: none"> 1. Students shared their self-selected work samples with the group. 2. Students completed a post-intervention questionnaire. 3. Group discussion: <ul style="list-style-type: none"> - What did you learn about personalised learning? - Did this type of activity help you to learn? - Reflection on the use of digital tools to choose a text and to engage with the learning goal.
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Figure 3.6: Overview of Action Research Cycle

3.6.3 An Outline of my Research Schedule

An outline of my schedule as I engaged with the MEd process is presented in Figure 3.7. This process spanned from August 2021 until September 2022.

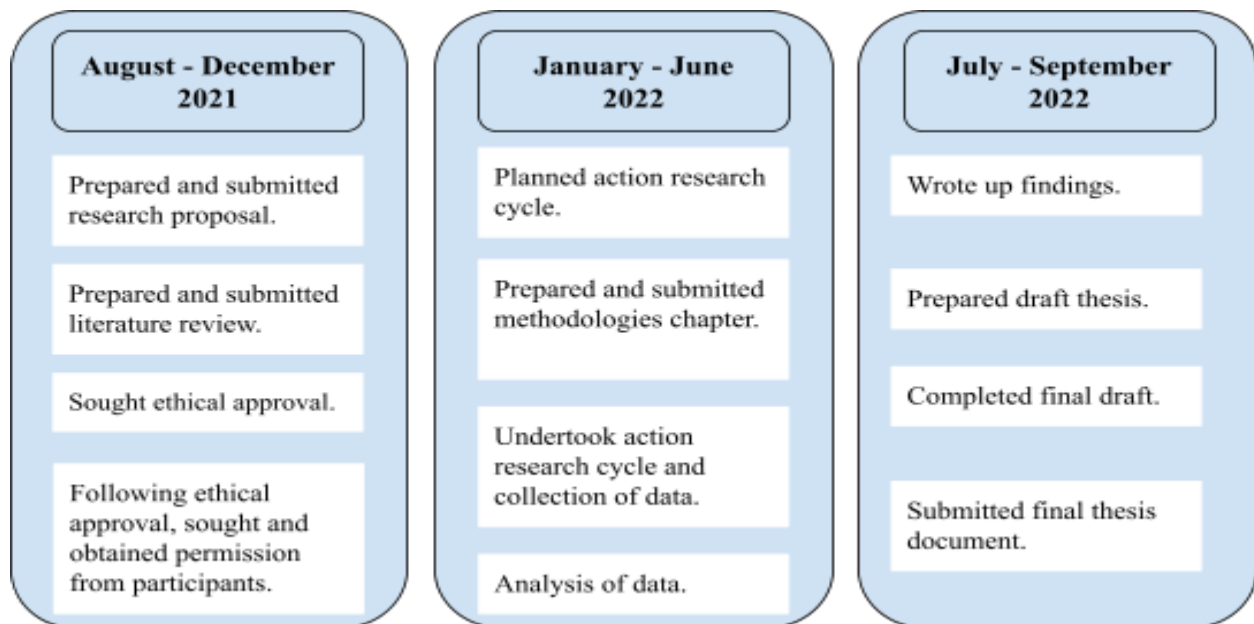


Figure 3.7: Schedule Outline

3.6.4 A Visual Deconstruction of my Personalised Learning Lessons

Figure 3.8 provides an overview of the format of my personalised learning lessons. I created a format of ‘explore, do, review, reflect’. Lessons began with a mini-lesson, which incorporated direct instruction and the promotion of student voice. Following this, personalised learning task time took place, in which the learners used their knowledge and skills to engage with the task. My role at this time involved supporting and scaffolding the children. Lessons concluded with the provision of time for a group discussion to review and reflect on learning and also to celebrate effort collaboratively.

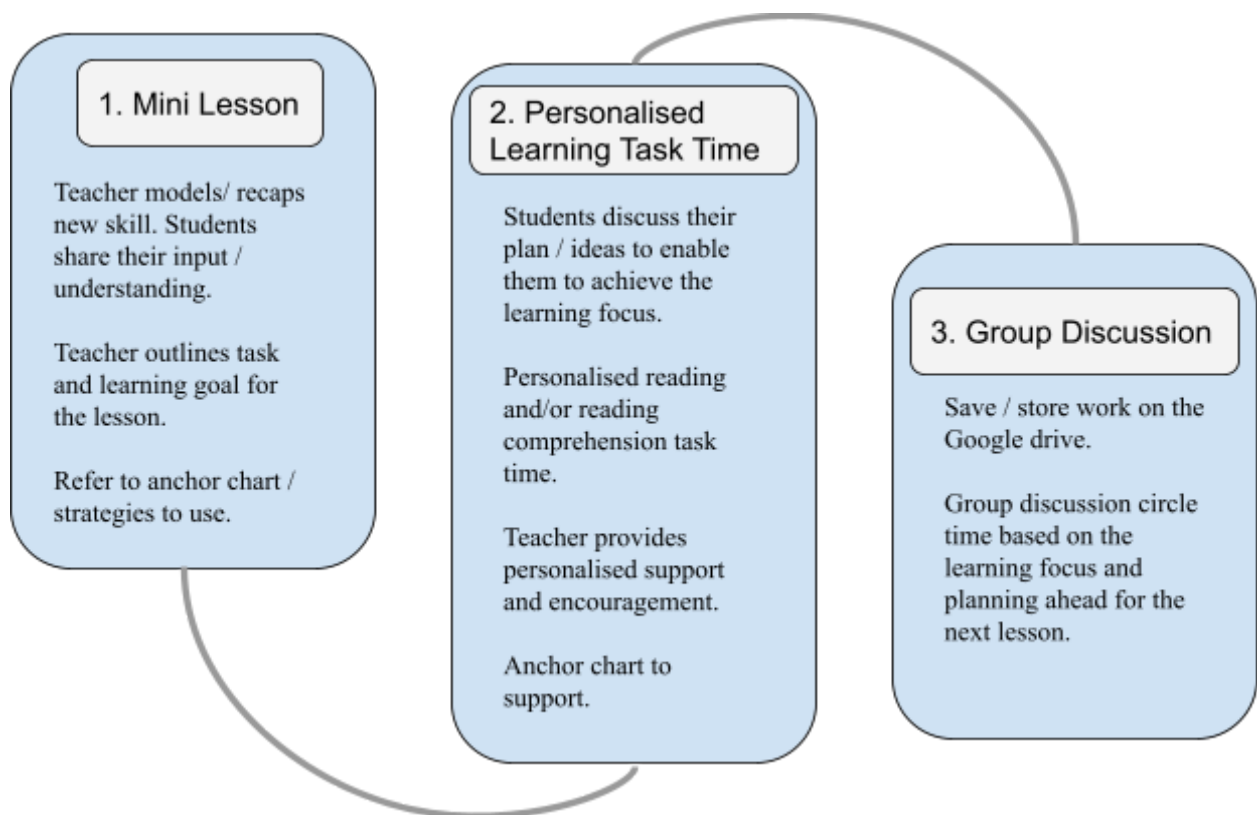


Figure 3.8: Breakdown of the Personalised Learning Lesson

3.7 Ethical Considerations

3.7.1 Power Dynamics

Incongruities in power serve as an ethical challenge for any researcher working with children. In this regard, Baumfield et al. (2013: 19) raise an ethical question which I found particularly important to contemplate. They ask, “at what point does a discussion about learning become data collection and at what point is it pedagogical strategy? Can the purposes of each overlap?”. As my research sought to be participatory in nature, an additional challenge presented itself. The power imbalance tipped in my favour as I had all the “positional authority” as the teacher (Brookfield, 2017: 27). I am aware of the fact that this has the potential to lead to acquiescence.

As a result, I overcame this by engaging in ongoing open discussions about power dynamics with my participants during the group discussion circles. I also ensured to make the students aware when research was taking place, as it overlapped with the teaching process (Nolen & Putten, 2007). Additionally, I positioned the students as participating subjects and I continually affirmed their role as co-participants (Smith, 2011).

The children were informed of their right to stop partaking in the research at any stage. I ensured that the children fully understood their role by using clear and comprehensible language; I made it clear that they were not under any pressure to perform as the focus of the study was on me as the teacher. The children were not offered any incentives to participate or to ‘perform’ during the study. The children were also informed that there would be no consequences if they chose to withdraw from the research at any time.

3.7.2 Vulnerability

As children with special educational needs are considered a particularly vulnerable group, it was imperative to fully adhere to Children First Guidelines, GDPR regulations, Maynooth University Ethics Policy and my school's Child Safeguarding Policy. Additionally, I ensured that the designated liaison person (principal) in my school was aware of all the details of my research intervention. The reason for this was because this person is a trusted contact of the children and they would be in a position to provide support should it be needed. Furthermore, as I was using digital devices in my teaching, I ensured the relevant permission was given for the children to use the internet in school, fully supervised, as per my school's Acceptable Usage Policy. Each action considered my values of care, trust and empowerment in my approach.

All details of the research, data methods and ethical obligations were explained to the parents/guardians/caregivers and children. The parents/guardians/caregivers were provided with an information letter which explained all the details of the research, including a form to provide consent on their child's behalf. The children were given an age appropriate information letter and a form to provide written assent to participate. Written consent was provided from my two critical friends who were selected based on their expertise in my research field. Permission was also sought and received from the principal and the Board of Management to carry out the research.

3.7.3 Sampling and Confidentiality

The core groups participating in my research were three separate groups of children whom I withdrew from fifth and sixth class three times weekly to teach reading comprehension skills and

also two critical friends. The child participants were chosen as a convenience sample, based on my allocated learning support groups as per my timetable. Confidentiality was ensured in relation to all aforementioned data, remaining cognisant of the small sample size. Care was taken to ensure no identifiable descriptions were used.

3.7.4 Data Storage

All data is treated in accordance with GDPR regulations. Data collected is stored in a secure location with password protection on a cloud based system which only I have access to. All data obtained is kept confidential and secure for the duration of the study and thereafter. On completion of the thesis, the data will be kept for a further ten years, as per University regulations and then will be securely destroyed.

3.8 Reflexive Thematic Analysis

In relation to data-analysis, a reflexive thematic analysis approach was chosen as it enabled me to reflexively and thoughtfully engage with both the data and the process of analysing it (Braun & Clarke, 2019: 594). I used Braun and Clarke's (2021) updated six-phase framework as a tool to enable the story of the qualitative data to emerge (Braun & Clarke, 2019: 591). An overview of this six-phase framework is included in Figure 3.9.

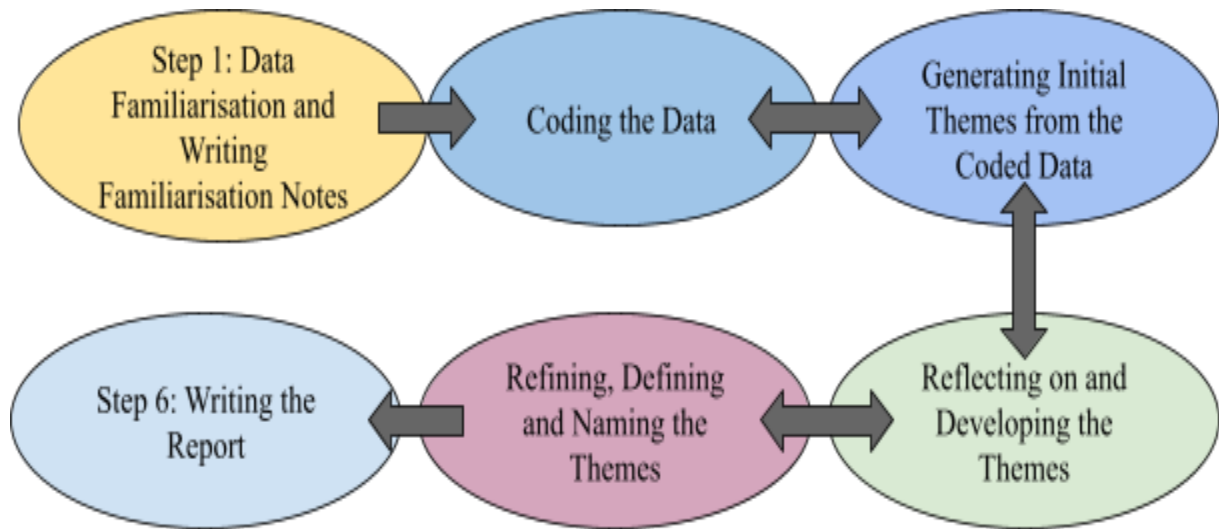


Figure 3.9: Six Step Thematic Analysis

Source: Developed by author; adapted from Bassey (1990) and Braun and Clarke (2021)

This particular type of thematic analysis allowed me to uncover, interpret and generate a rich and detailed account of the qualitative data I collected (Braun & Clarke, 2006; 2019). I value how this approach places significance on the researcher’s role in knowledge production. Further depth and reliability of my findings was ensured by triangulation of the data (Golafshani, 2003).

I began the process by taking the time to immerse myself in the data through repeated reading, combined with reflecting and meta-reflecting. My critical friends were also invited to collaboratively share their interpretations of the data and to sense-check my ideas, with the aim of achieving “richer interpretations of meaning” (Byrne, 2022: 1392). The decision to involve critical friends in the thematic analysis was influenced by my decision to engage in participatory action research and by my epistemological view that knowledge is embedded in social relationships. Latent coding was used to explore and interpret the meaning of the data.

Through engagement with this process I generated themes that were “discrete enough to avoid redundancy, and global enough to be meaningful’ (Attridge-Stirling, 2001: 394). I adopted an inductive approach, initially uncovering twenty-five codes within the data. I then reflected and regrouped the codes within four clusters of domain summary themes (Braun & Clarke, 2019; 2021). A number of codes were found to be connected to two or more domain summary themes. This can be viewed in Figure 3.10, with the six codes inside the central diamond lending themselves to all four domain summary themes. These six codes are as follows; trust, flow, scaffolding, motivation, identity and inclusion.

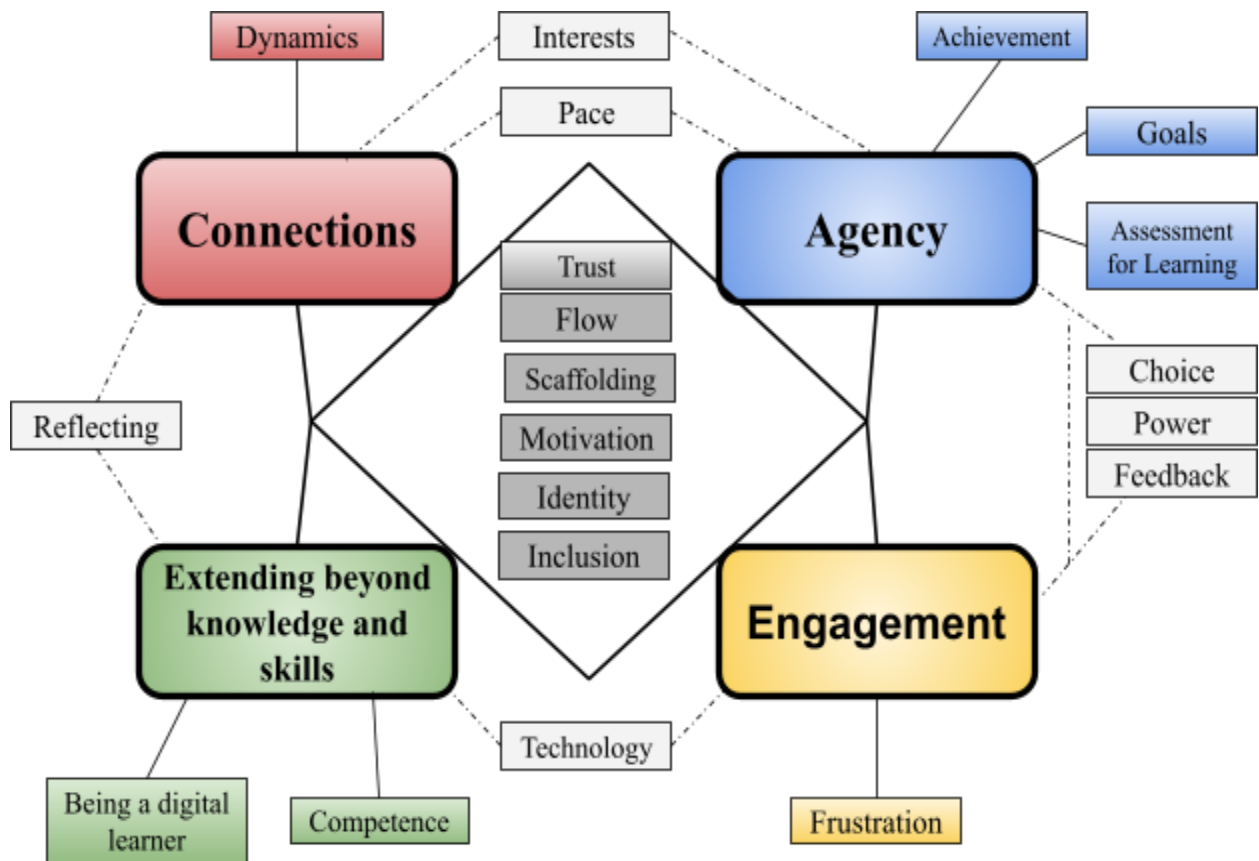


Figure 3.10: Initial Codes and Domain Summary Themes

Consistent with the reflexive thematic analysis approach (Braun & Clarke, 2019; Braun et al, 2018) I then developed my themes further. Upon reflection of the initial codes and domain summary themes (Figure 3.10), two concisely named themes emerged (Braun & Clarke, 2006).

As suggested by Braun and Clarke (2019; 2021), I have further labelled the subthemes within each theme in Chapter Four so as to allow the story of the data to reveal itself in a coherent and compelling manner. My two themes and subsequent subthemes are presented in Figure 3.11.

Theme 1: Teacher as Caring Facilitator	Theme 2: Student as Agentic Learner
<i>Subthemes:</i>	<i>Subthemes:</i>
Establishing a Supportive Climate	Taking Responsibility
A Gradual Release of Responsibility	Making Choices

Figure 3.11: My Overarching Themes and Subthemes

3.9 Conclusion

As explored in this chapter, self-study, participatory action research was my chosen methodology. Data collection sources and tools were chosen in line with the participatory approach of my study. Emphasis was placed on generating qualitative data which could be analysed and interpreted in order to gain meaning in relation to my research question. Ethical

considerations were highlighted and specific tensions which exist when working with children were addressed.

Also discussed in this chapter was my use of Braun and Clarke's (2021) updated six phase framework for thematic analysis, with an overview of the rationale for this choice and the process leading to the themes being generated. The next chapter will analyse the data I collected and detail the findings which have emerged as a result of engaging with the thematic analysis process.

Chapter Four: Data Analysis

4.1 Introduction

This chapter will explore how I purposefully engaged with the data to find key patterns and themes relating to my research question (Cohen et al., 2018). Through the adoption of a reflexive thematic analysis approach (Braun & Clarke, 2019), two themes were generated: Teacher as Caring Facilitator (GOI, 1999); and Student as Agentic Learner. A total of four subthemes were also identified, each of which addressed my ancillary questions (see Appendix C). My three ancillary research questions were presented in Chapter One (Figure 1.2). The interaction of the findings will be analysed using Brookfield's four lenses (2017) and with my values of care, trust and empowerment as the standards of judgement (McNiff, 2008).

4.2 Theme One: Teacher as Caring Facilitator

As evidenced in Figure 4.1, my first theme 'Teacher as Caring Facilitator' is composed of two subthemes. The following section will analyse my finding that I, as the teacher, needed to adopt the role of a caring, responsive facilitator in order to enhance my practice through the use of personalised learning. The term "caring facilitator" is borrowed from the 1999 Irish Primary Curriculum. My role in establishing a supportive climate, in addition to balancing teacher control with student autonomy will be explored in this section.

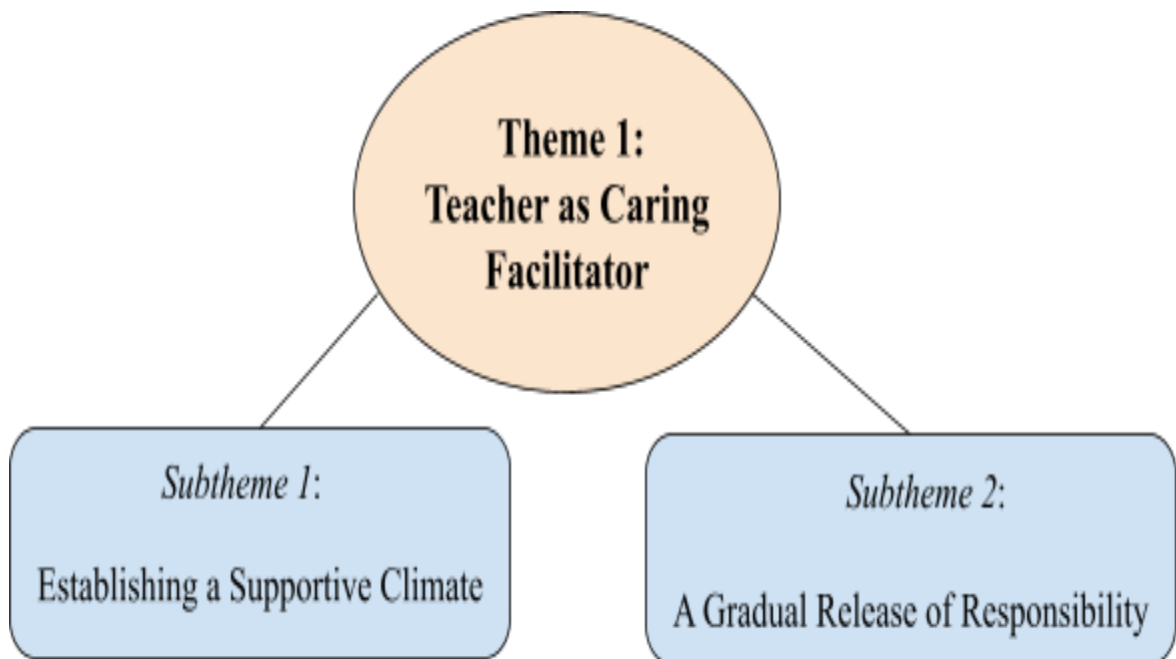


Figure 4.1: Subthemes within Theme One

4.2.1 Establishing a Supportive Climate

A Need for Change

Research has shown that the implementation of personalised, digital-based learning changes the dynamics in the classroom as it impacts both student and teacher (Basham et al., 2016; Schmid et al., 2022). In order to enable my students to “internalize new values, develop important skills, and develop social responsibility” (Reeve, 2006: 225), I needed to guide both the academic and the personal development of the students during the process of change (Kember, 1997; Woolfe & Poon, 2015; Porath & Hagerman, 2021).

Data from my reflective journal suggests that I interpreted the classroom culture as positive prior to the intervention taking place, with children appearing “happy in class” (TRJ, 7th

November 2021). However, I also anticipated that developing an awareness of the need for change to happen would be an important element in order to guide the personal development of the students as learners (TRJ, 25th November 2021).

The children's pre-intervention survey responses validated my belief that an awareness of the need for change would be necessary. A selection of the children's responses can be seen in Figure 4.2. One child noted that the reading comprehension lessons were "good because we can all do it at the same time and everyone gets to read a bit" (CR, 6th January 2022). Another child wrote that they would "change nothing" about the pre-intervention comprehension lessons (CR, 6th January 2022).

Is there anything you would like to change about our reading comprehension lessons

No

I would change nothing

Starlight

Writing the answers in are copy

I dont think so

Figure 4.2: A Sample of Pre-Intervention Student Questionnaire Responses

As observed by a critical friend, the children appeared to be “passively acceptant” (CF, 10th January 2022) of my teacher-led method of teaching reading comprehension, perhaps because of the power dynamic between student and teacher (O’Neill & McMahon, 2005).

The data from my reflective journal suggests I was attempting to apply my knowledge of Lewin’s three-step model of change (1947) to my intervention, beginning with ‘unfreezing’; creating the perception that a change is needed. I reflected on the need for a change to my approach to teaching reading comprehension:

It all feels a bit ‘prescribed’- new vocab, use the dictionaries, read the text, use the skills , discuss, answer the questions and correct (TRJ, 7th November 2021).

Exploring The What and the Why of Personalised Learning

As a result, when designing my intervention I made a decision to allocate discrete time to focus on collaboratively exploring the what and the why of personalised learning. I decided this would occur from the outset. Beginning the intervention in this way, I hoped, would enable the children to feel a sense of ownership over the process. Wolfe and Poon (2015), in their research, state that ownership must be present in order for a learning environment to be personalised. I reflected on my reasons for this decision in my reflective journal:

I feel this will be time well spent as I can explain what personalised learning is and why it’s important. I can also teach the digital-skills that are required. Creating a supportive space where psychological safety is nurtured (TRJ, 14th December 2021).

I was beginning to articulate my understanding that the ‘what and why’ of personalised learning is important (Bray & McClaskey, 2013). I was also articulating my understanding of my

role as a teacher in nurturing learner engagement and a sense of shared ownership with the research.

There would be no formal teaching of comprehension skills for three weeks. This was despite the fact I knew I only had a total of ten weeks for my action learning cycle to take shape. An action learning cycle which focused on enhancing my teaching of reading comprehension. By January 2022, when my intervention was due to begin, I would be entering into the third trimester of my pregnancy.

I shared my plan with my critical friends, who suggested I reconsider the intervention timeline, perceiving the three week time allocation of setting the foundation to be excessive and “perhaps not the best use of the time you have to play with” (CF, 13th December 2021).

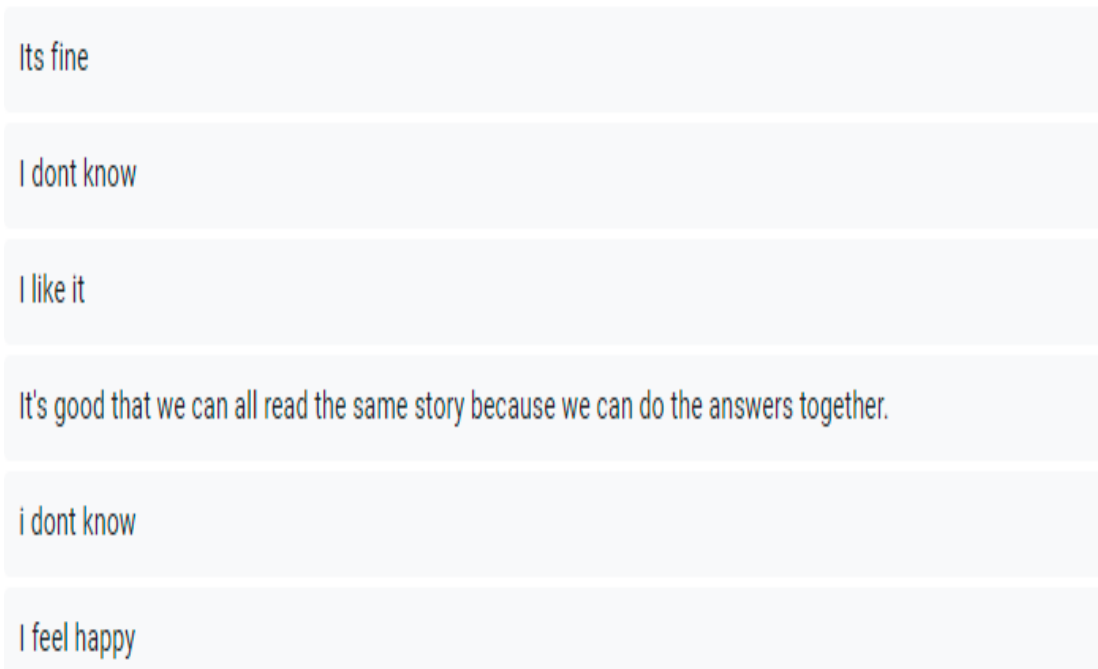
Sharing a Vision for Change

Nurturing learner engagement and participation is identified by the DES as one of the four pillars of STEM education (DES, 2017). Placing the voice of the child at the centre would enable the students to develop a sense of autonomy and relatedness, which are identified as two of the three core components of self-determination (Deci & Ryan, 1985).

Creating the conditions for change in those initial three weeks ensured I could focus on creating a vision which embedded my values into my teaching. Additionally, this investment of time was found to enable the students to become “active agents in their own learning” (GOI, 1999: 8). Placing a structure on how personalised learning could function acted as a means to change the dynamics of the classroom environment. It also enabled me, as the teacher, to unravel the encompassing nature of personalised learning (Bernacki et al., 2021; Schmid & Petko, 2019).

The need to develop an awareness for change can be seen in the children's responses during the Pre-Intervention Questionnaire (see Figure 4.3).

How do you feel when you and your classmates are reading the same text at the same time?



Its fine

I dont know

I like it

It's good that we can all read the same story because we can do the answers together.

i dont know

I feel happy

Figure 4.3: A Call to Develop an Awareness of the Need for Change

The children's post-intervention questionnaire responses suggested that the time given at the beginning of the intervention impacted my students' awareness of the what and the why of personalised learning (Figures 4.4 & 4.5).

What do you think personalised learning is?

It means I can make decisions about my learning

Its about me and how I learn

It means you get to follow your own interests in how you learn

Its personal. like you use Epic to choose a book you like or you could choose a read aloud or a video

Figure 4.4: Student Post-Intervention Responses Which Highlight an Increased Understanding of the 'What' and 'Why' of Personalised Learning

Did teacher help you to understand what personalised learning is? If so, how?

Yes the anchor charts we made at the start and when she explained what it meant.

She put the anchor charts up so we could use them.

Yes. When we started using the laptops we spent time talking about it in our group and teacher helped us to understand.

i didnt know what it was at the start

Figure 4.5: Student Post-Intervention Responses: An Increased Understanding of What Personalised Learning is

Critical friends later described the decision to invest time collaborating with the children in this way as “impactful”, stating that “it showed the children you valued their thoughts and ideas” (CF, 6th March 2022) and how:

the children felt safe and supported to take risks with their learning because of the input at the beginning. They could see the value of the approach (CF, 26th April 2022).

Learning to be a Learner

This suggested I had successfully designed my intervention to incorporate attributes of the key competency of ‘Learning to be a Learner’, in which the children had “opportunities to interact, to investigate, to question and wonder” (NCCA, 2020: 10). The attributes of this competency are summarised in Figure 4.6.

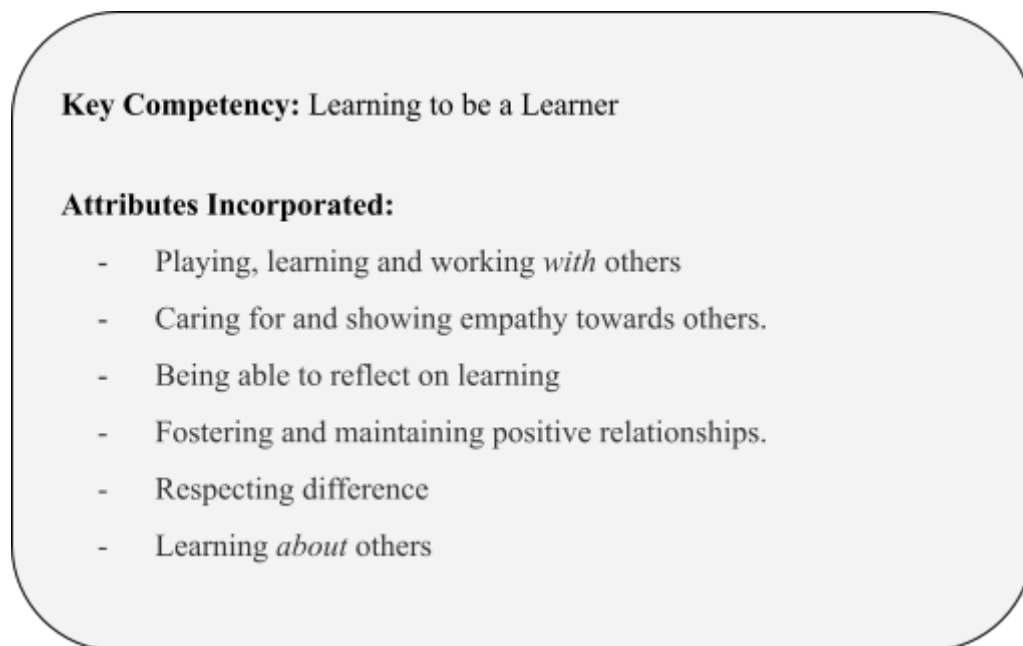


Figure 4.6: Attributes of the Key Competency ‘Learning to be a Learner’
(adapted from NCCA, 2020: 10)

Reflecting on this, I wrote; “It was about trust... my role from the beginning was more than just teaching the knowledge and skills” (TRJ, 26th April 2022). The time to explore the what, how and why might just have allowed that trust to develop, enabling me to facilitate and guide the learning rather than direct it. The Draft Primary Curriculum Guidelines state how this approach can support the children’s wellbeing as “it creates a sense of belonging and connection, as well as building awareness of the unique contribution that every child can make” (NCCA, 2020: 9). The Digital Strategy for Schools further notes the importance of learners being “encouraged to understand how they learn so that they can take control of their own learning and develop their skills further” (DES, 2022: 23).

An appreciation of the time given to establish a supportive climate was evident in the children’s feedback, with one child reflecting on the importance of this discrete time for developing an understanding of personalised learning:

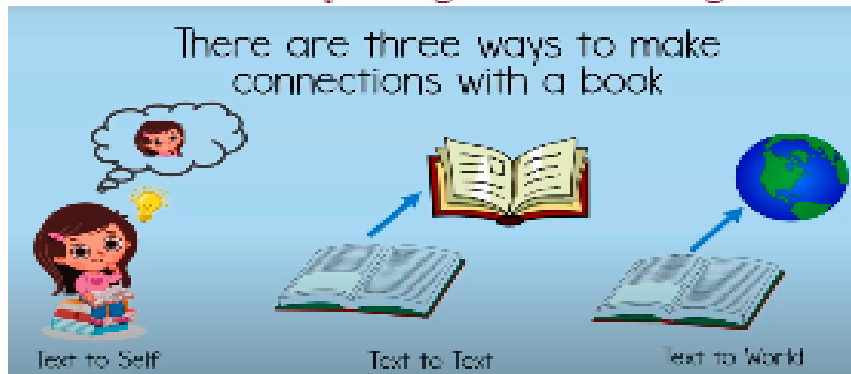
I wasn’t sure at first what teacher meant by personalised learning. I liked that we shared ideas and made a personalised learning chart to help us figure it out (CR, 5th March 2022).

By facilitating awareness of the what, the how and the why of personalised, digital-based learning in those initial weeks (Bray & McClaskey, 2013), I was enabled to create a supportive climate in which all three elements of personalised learning could be addressed; learner characteristics, design components and learner outcomes (Bernacki et al., 2021). In this way, I was building the foundation to enhance my practice by placing student voice and personal relevance to the fore (Miliband, 2006; Bray & McClaskey, 2013; Basham et al., 2016; Fitzgerald et al., 2018; Bernacki et al., 2021; Motteli et al., 2021; Schmid et al., 2022).

Making Connections

**** I can relate the text to my own experiences... ****

***** I can use my background knowledge *****



<p>Text to Self</p>	<p>This reminds me of a time...</p> <ul style="list-style-type: none"> - A memory - Something that happened to you - Or to someone you know - they could be real or a character from a story you read
<p>Text to Text</p>	<p>This reminds me of another book / an audio-book / a read-aloud book...</p> <p>This reminds me of an audio-book...</p> <p>This reminds me of a film / video...</p> <ul style="list-style-type: none"> - Remember a text can be a book, video, audio, poster, image.
<p>Text to World</p>	<p>This reminds me of something I heard about...</p> <p>This is like something I heard on the news...</p> <p>This happened when...</p>

Action: Link thumb and index finger on each hand and connect both of them



Figure 4.7: Collaboratively Created Anchor Chart on how to ‘Make Connections’ (Group B)

Facilitating Meaning Making

The following quote from a child sums up the significance of establishing a supportive environment and how this has the potential to ignite an “enthusiasm for learning” (CF, 6th March 2022);

The best part was telling the story of my jersey. I was excited to show it to teacher and I knew she would really like hearing about it... I felt heard (CR, 6th March 2022).

This particular student felt empowered to apply his understanding of personalised learning, choosing to connect it to his love for football. Following our initial discussion of what the word personalised meant, he decided to bring in a personalised football jersey which he owned and he spoke enthusiastically about the story of how he got it. The fact that this child felt “excited” about his learning legitimised my decision to use my agency to place a particular focus on relations oriented behaviours such as developing and recognising (Yukl, 2012). As I wrote in my reflective journal, this “helped to ensure the students felt valued and listened to” (TRJ, 24th April 2022).

Placing a focus on interactions which highlighted personal relevance contributed to the creation of a learning environment which was welcoming and affirming. As the research suggests, it enabled opportunities for the students to engage in self-directed learning as they felt supported and emotionally safe to embrace the possibilities for their own learning (Wolfe & Poon, 2015: 14). I noted how this safety also gave the students an extra push which “motivated them to try to reach their goals and to follow their own interests” (TRJ, 28th January 2022).

In relation to the research on facilitating personalised learning, this particular finding

links closely with the interpersonal competency domain in Wolfe and Poon's (2015) framework of educator competencies for personalised learning. This suggests that, in order for student-led learning to occur as a result of personalised learning, teachers need to be able to relate to their students and to develop positive relationships.

4.2.2 A Gradual Release of Responsibility

As evident in my action research plan (Figure 3.7), I anticipated that the students would need direct input with each of the digital tools prior to using them independently. In order for technology-mediated, personalised learning to succeed, research has found that students require explicit teaching of the digital tools being used in addition to assistance engaging with the technology as they complete activities (Walkington & Bernacki, 2020; Schmid et al., 2022). The second subtheme which emerged from the theme 'Teacher as Caring Facilitator' was 'A Gradual Release of Responsibility'. This subtheme focused on answering the following two ancillary research questions; 'how can digital tools be used to personalise the learning task?' and 'how does personalised learning affect my teaching of reading comprehension?'.

The Role of Direct-Instruction during Personalised Learning

Ashman argues that direct-instruction is a highly-effective means of teaching complex content (2021). He defines direct instruction as, "a pedagogical pathway that provides students with the modeling, scaffolding and practice they require when learning new skills and concepts" (2021: 8). Direct-instruction explicitly teaches students the skills they need, providing additional support when it is needed.

Guided by the use of Brookfield's four lenses (2017), I made a decision to incorporate the

direct-teaching of digital-skills into my initial three week phase, which I called ‘exploring’. This time would be used to focus on two particular elements; collaboratively exploring what personalised learning is combined with direct-instruction of the digital-skills needed. The reading comprehension skill ‘connecting’ would be incorporated from week four onwards, with some direct-instruction of this skill also.

I shared my thoughts with my critical friends, who suggested I reconsider the intervention timeline. Aside from the fact my critical friends were aware that I had just ten weeks to play with, Ashman (2021) offers a possible reason for their apprehension. He states that direct-instruction, an element of explicit-instruction, is seen as incompatible with more widely known education theories including inquiry-based learning (Ashman, 2021). In my reflective journal I made sense of my decision, writing:

The children should be familiar with the rationale and the digital tools by week four. I feel I have made a good decision- I want the children to be able to learn for themselves but I feel direct instruction is worthwhile at the beginning, especially as my intervention is very much skill based. It's dual purpose - digital skills and comprehension skills. I couldn't expect the children to know what to do if I don't collaborate with them first (TRJ, 16th December 2022).

Villaume and Brabham (2003) refer to this approach as flexible and responsive instruction, noting its success for struggling readers. Moore (2010) highlights the findings from a study by the National Literacy Panel (2006; cited in Moore, 2010), which found that a combination of direct-instruction and interactive approaches to be more effective than adopting one approach in isolation. Ashman (2021) also attests that a combination of discovery learning and direct-instruction is an appropriate style of teaching as both have a purpose in modern classrooms.

My plan sat well with my desire to engage my students and to make learning meaningful. It would also enable me to promote student voice and choice, a key feature of personalised learning (Bernacki et al, 2021; Schmid et al., 2022). Evidence from my research suggests this was an effective means of incorporating personalised, digital-based learning with the teaching of reading comprehension skills. In the PIGD, Students reported:

Knowing how to use the voice typing meant I didn't worry about my spelling. Once I knew how to use it properly, it was so much easier to do the work. When I write the answers and responses in my copy, this is something I am so aware of and sometimes it blocks me from writing what I want to (PIGD, 3rd March 2022).

With another student saying:

When I was reading the story, if I got stuck all I had to do was to click on the word and it read it out loud for me. Learning that helped. It didn't matter what book I picked, the option was always there (PIGD, 3rd March 2022).

The first child quoted above highlighted the role of direct-instruction in enabling her to access the learning task. The second child quoted perceived he could engage in a cognitively more challenging reading activity because he had the option to use the 'Listen and Read' option, a skill which was taught through direct-instruction also. In this way, explicit teaching of digital tools stimulated cognitive activation (Schmid et al., 2022). It also facilitated inclusion as the children's perceived difficulties were overcome due to a combination of direct-instruction and access to digital tools. Direct-instruction improved learner outcomes and enabled personalised learning, allowing for a more student-led approach over time.

Evidence from the following Teacher Observation sheet also demonstrates that direct-instruction was an important element of my intervention:

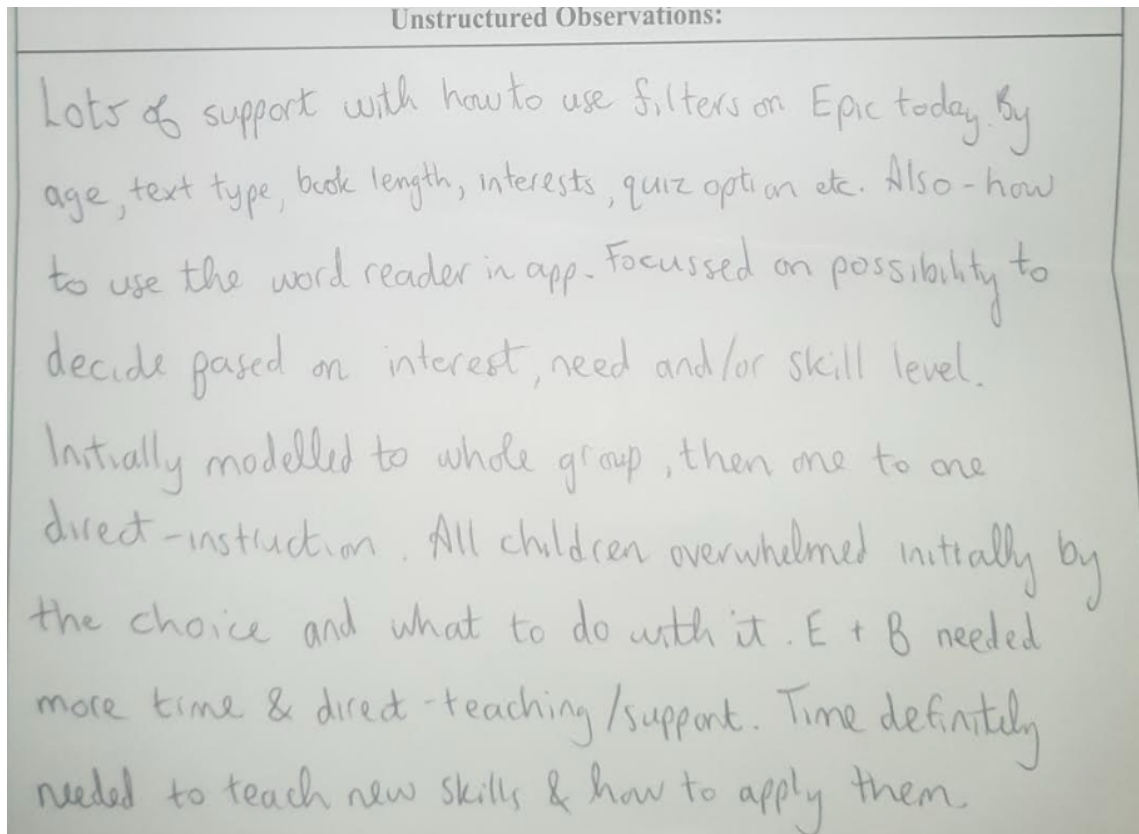


Figure 4.8: Teaching Observation 17.1.22

The Importance of Direct-Instruction in Enabling Personalised Learning

The STEM Education Policy Statement 2017-2026 states that teachers “will adopt an inquiry-oriented approach to their teaching and learning, and their practice will be informed by their engagement in and with relevant research” (DES, 2017: 15). I can now understand the significance of the word ‘oriented’ in the quote above. I was steering in the direction of inquiry rather than using inquiry as a starting point. The data from my research shows that my approach required the use of direct-instruction in order to enable the complexities of personalised learning

to occur. It enabled me to become a caring facilitator (GOI, 1999), ensuring my values were reflected in my teaching.

An Awareness of Power Dynamics

To achieve my goal of using personalised learning to enhance my practice, I noted the “need to change the focus from teacher-directed learning to student-led learning” (TRJ, 15th December 2021). This required me to adopt the role of a “caring facilitator” (GOI, 1999: 20), whilst also using my influence respectfully to guide the children towards greater control of their learning (O’Neill & McMahon, 2005; Drexler, 2010). A critical friend summarised this as “putting your awareness of the power dynamics between teacher and student into practice” (CF, 24th April 2022).

Scaffolding Cognitively Challenging Learning Activities

In addition to my role in nurturing a supportive climate, I found that I needed to facilitate cognitively challenging learning activities (Fauth et al., 2014). The data suggests that I achieved this by using direct-instruction of digital and comprehension skills and by implementing the gradual release of responsibility model (Pearson & Gallagher, 1983). Supportive climate and cognitive activation are noted as two of the three basic components of high quality teaching in a number of empirical analyses which attempt to define the quality of instruction (e.g. Fauth et al., 2014; Lipowsky et al., 2009 cited in Schmid et al., 2022: 5).

As evidenced in Figure 4.9, the students themselves noted how high levels of teacher support at the beginning of the intervention enabled them to become increasingly independent and to choose texts that were both interesting to them and appropriately challenging.

Teacher Observation Sheet Date: Mon 14 Feb 22 Group: A

Autonomy	Relatedness	Competence
<p>Gave feedback to 'A' about their independent use of word reader function. Child referred to 1st 2 weeks when we practised skills together & they 'remembered' it for themselves.</p>	<p>Gave positive feedback to child 'A' about their independent use of word reader.</p>	<p>'C' - managing v. well with more difficult texts, despite reading difficulties. Used word reader function independently when stuck on some of the words.</p>
Unstructured Observations:		
<p>Child B → "The ones I picked were all 11+" ↓ When I asked her why she decided to sort the texts by age she answered, "I went with topics and books that interested me so they were easier to get into. Remember the 1st week we did Epic, you reminded me to find ones I liked. That's what I did."</p>		

Figure 4.9: Teacher Observation 14th February 2022

One child further summarised how initial high-support scaffolding removed barriers to learning as it positively impacted their ability to engage in cognitively appropriate and challenging learning activities:

...the way we all shared our ideas to make the personalised learning chart. That made it easier for when I had to choose my own story and then when I got to pick how to do the work” (CR, 5th March 2022).

Other children added to this, noting the importance of explicit teaching in the scaffolding process:

Having time to practice using the different digital tools was good. I had never used voice typing before so I needed help to do it right (CR, 5th March 2022).

And:

I didn't know about copyright with the images. I guess it was important to know this so I could know how to search for myself. It was frustrating though because the choice was so much less (CR, 5th March 2022).

This correlates with the literature on the importance of gradually releasing responsibility to achieve self-determination (Deci & Ryan, 1985; Seligman, 2011). By scaffolding the learning process and providing a high level of teacher support initially, a transfer of the balance of power towards the children was enabled. Similar to the findings in an empirical research study by Van de Pol et al. (2015), a move towards less scaffolding in this situation was effective because of the increasing independent work time. Whilst this resulted in the children taking on greater responsibility for their own learning over time, it was found that the level of support organically ebbed and flowed according to the individual and the task.

Finding a Balance

Although responsibility was gradually released, the teacher was found to play a central role in adapting, responding, guiding and supporting the children as they engaged with the learning activities. A critical friend described this as “responsive teaching”, highlighting the need to “adapt as and when the children required more or less support” (CF, 26th April 2022). I identified this in my journal, writing:

I am giving greater responsibility to the children as we all become more comfortable with the process... but at the end of the day as the teacher I am using my professional judgement to get involved when I see fit. Today, for example, AN was getting frustrated - too much choice. He couldn't decide which website to use and he was going round in circles looking at them all. By supporting him to make a decision, he could move on to focus on the activity itself (TRJ, 1st February 2022).

This finding is also reflected in the literature on technology-mediated personalised learning, where the need for a flexible combination of student self-direction and direct teacher-support is noted (Lazonder & Harmsen, 2016; Schmid et al., 2022).

In my teacher observations, I also wrote about how the gradual move from high teacher support towards higher levels of child control appeared to be beneficial, noting how the children were getting more involved in the lessons than they had previously (Figure 4.10).

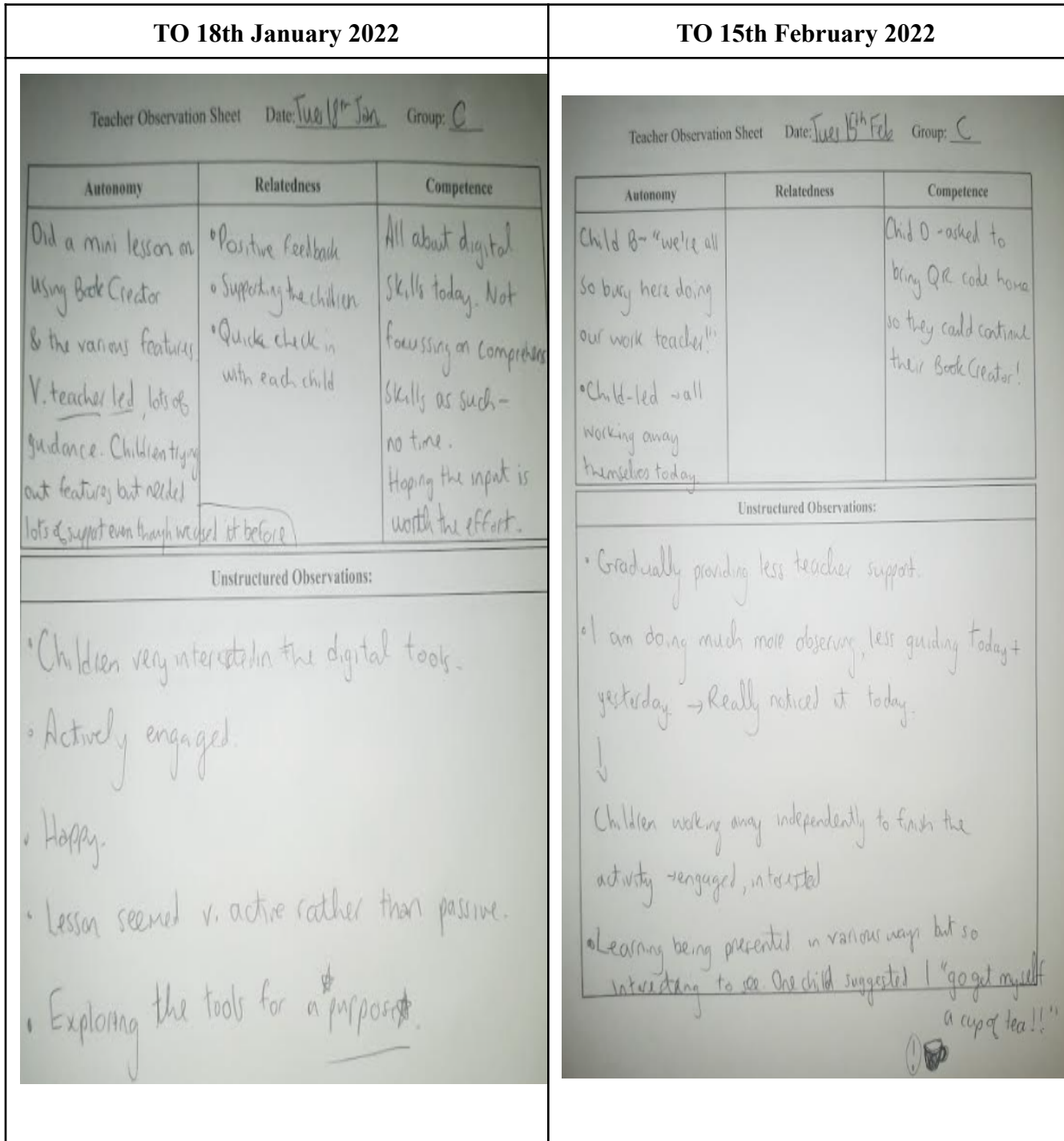


Figure 4.10: Teacher Observations on the Impact of a Gradual Release of Responsibility

When looking over the anonymised data, critical friends agreed that a gradual move towards greater child-control was important as it “helped give the children a sense of power” and it “made them feel they could make change happen” (CF, 26th April 2022). This approach also strengthened the positive teacher-student relationship, enabling students to feel safe amongst the changes to the original lesson format (Praetorius et al., 2018).

4.3 Theme Two: Student As Agentic Learner

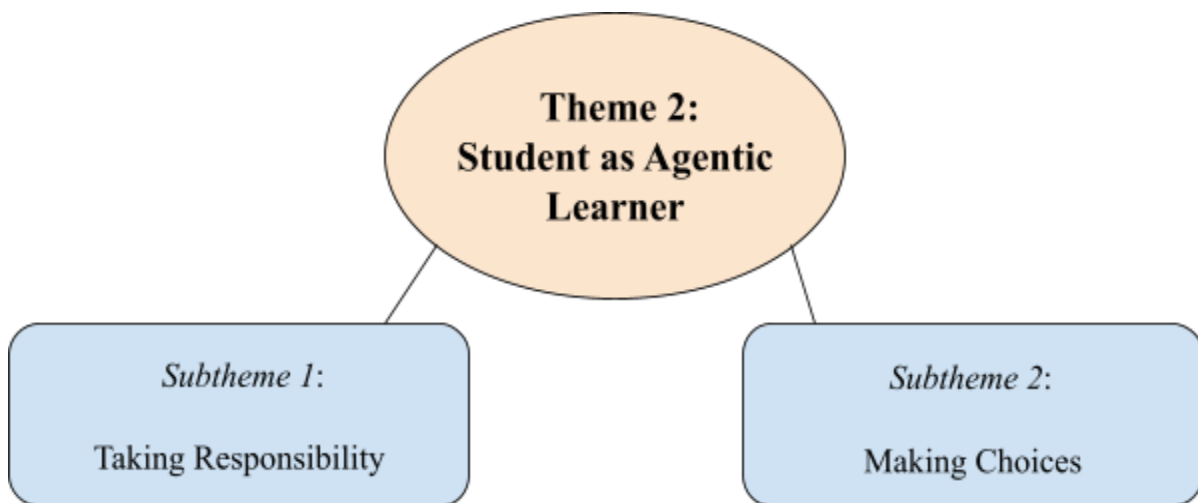


Figure 4.11: Subthemes within Theme Two

The second theme which emerged from my data involves the role of the child as an agentic learner during personalised, digital-based learning experiences. Whilst the role of the teacher in nurturing a supportive environment was found to be an important element of enhancing my practice, active engagement with using choice and taking responsibility for learning were also required by the students themselves. The students were required to become agents of change, to make choices in how to direct their own learning and to actively engage with the digital tools during the learning process. This involved using learner agency, defined by Charteris as “the

student's capacity to take up learning opportunities in the classroom; engaging the disposition to learn" (2013: 20).

4.3.1 Taking Responsibility

Fitzgerald et al. (2018) and Basham et al. (2016) emphasise the role of responsibility in enabling the learner to become central to the learning process. Prior to the intervention I had naively made an assumption that I could enable student-led learning by simply changing my reading comprehension lesson format to incorporate technology.. A conversation with a critical friend about this led me to reflect on my assumption and to link this back to a previous experience using digital tools in my teaching. In this regard, I wrote:

I just sort of assumed the draw of using the laptops would hook the children and get them interested in applying the comprehension skills... but as we were sharing today, it's all about **how** they are used. This made me think about how we used various apps for station teaching in my old school... Sometimes it was quite passive.. The children enjoyed the apps and they could choose different games but I remember thinking it got a bit flat after the novelty wore off (TRJ, 16th November 2021).

I was now beginning to realise the significance of 'meaning' when giving responsibility to the children for their learning. This helped me to clarify my rationale for including digital tools in personalising the learning. I realised the change I wanted to make involved the children using digital tools in a purposeful way that supported student motivation (Shanahan, 2019). This would ensure that "relevant, meaningful learning opportunities" could occur, opportunities which have the potential to empower the children to take responsibility for their own learning (DES, 2015: 5). Without the inclusion of responsibility, the learning would remain passive.

Research on implementing personalised learning further confirmed my developing awareness of the need for student voice and choice to be prioritised in order to empower the children to take responsibility for their own learning (Bray & McClaskey, 2013; DeMink-Carthew & Netcoh, 2019). I began to see choice and responsibility reflected in the aims of the Primary Language Curriculum which asserts, “essential to the development of digital literacy is the child’s ability to locate, select and critically analyse relevant information in multiple modes” (NCCA, 2019: 50). This sat well with my desire to “move beyond differentiation and make learning real” (TRJ, 19th December 2021).

Equipped with a clear rationale which focused on empowering the children to take responsibility for their own learning, I began my ten-week intervention. As the action unfolded, I reflected:

So interesting to observe today as the children decided on the digital tool that would best suit them to achieve the learning outcome. They were seamlessly steering their own learning according to their interests and needs. Lots of variety in how the children are using technology to show they have achieved the learning outcome (TRJ, 31st January, 2022).

When engaging with the data analysis process, I realised the significance of my observation above:

This journal entry highlights the significance of giving control to the children to choose the digital tool they felt would work best for them. It also made me realise the role of using the interests and needs of the children for making the learning purposeful. Having choices that tapped into the children’s interests and needs empowered them to take responsibility for their learning. They were engaged as learners. I can see similarities with the UDL principle of multimodality (TRJ, 4th May 2022).

This was also reflected in the students' responses, seen below (Figure 4.12):

<i>The best part of the intervention was...</i>	<i>Because.....</i>	<i>Learner Characteristic(s) Identified</i>
Using Epic	There were so many books about things I am interested in. I liked that I could read books, comics, audiobooks or even use photos to show I could make connections, it didn't have to be the same every day.	<input type="checkbox"/> Interests <input type="checkbox"/> Skill
The National Geographic books online	I love animals. I found a book about deadly predators that I learned a lot of new facts like blue whales eat really tiny food called krill.	<input type="checkbox"/> Interests
Voice typing	It was a better way to get my work done.	<input type="checkbox"/> Needs
Choosing my own content	I got to decide what was best for me.	<input type="checkbox"/> Needs
Book Creator	I used it during lockdown and got really into it. I liked making books and getting even better at it.	<input type="checkbox"/> Skill
Watching videos instead of reading	I preferred making connections with the videos, it was more like me than reading a big story.	<input type="checkbox"/> Interests

Figure 4.12: Examples of Post Intervention Student Survey Responses

I discussed my developing awareness with a critical friend, who supported my finding that giving the children choice went hand in hand with responsibility for how to use it (CF, 7th May 2022). My critical friend also raised my awareness of how I planned flexibly, reminding me that I had “provided multiple ways for the children to demonstrate their learning” (CF, 7th May 2022). This is in line with the principles of UDL (CAST, 2018).

The children were experiencing Csikszentmihalyi’s concept of ‘flow’ (2011), fully immersing themselves in the process of learning. I realised I was living out my values in my practice, incorporating “personalised learning opportunities’ which were facilitating me to engage in what the Looking at Our School’s document describes as “highly effective practice” in relation to teaching and learning (NCCA, 2016: 18).

The following example of a child’s comment accompanying their assessment portfolio further demonstrates how the incorporation of learner characteristics (Bernacki et al., 2021) such as interests, needs and skill served to motivate the children to take responsibility for their own learning:

I chose these two samples because.... Both examples I included in my portfolio of work were done using the voice typing. I am really proud of these. I chose them because I thought about how Santa has elves and why I have my Nanny's photo like the girl. And how it reminded me of other films and books. I wrote much more than I usually would when I write in my copy. This work is really good (Child’s Reflection on their Work, 3rd March 2022).

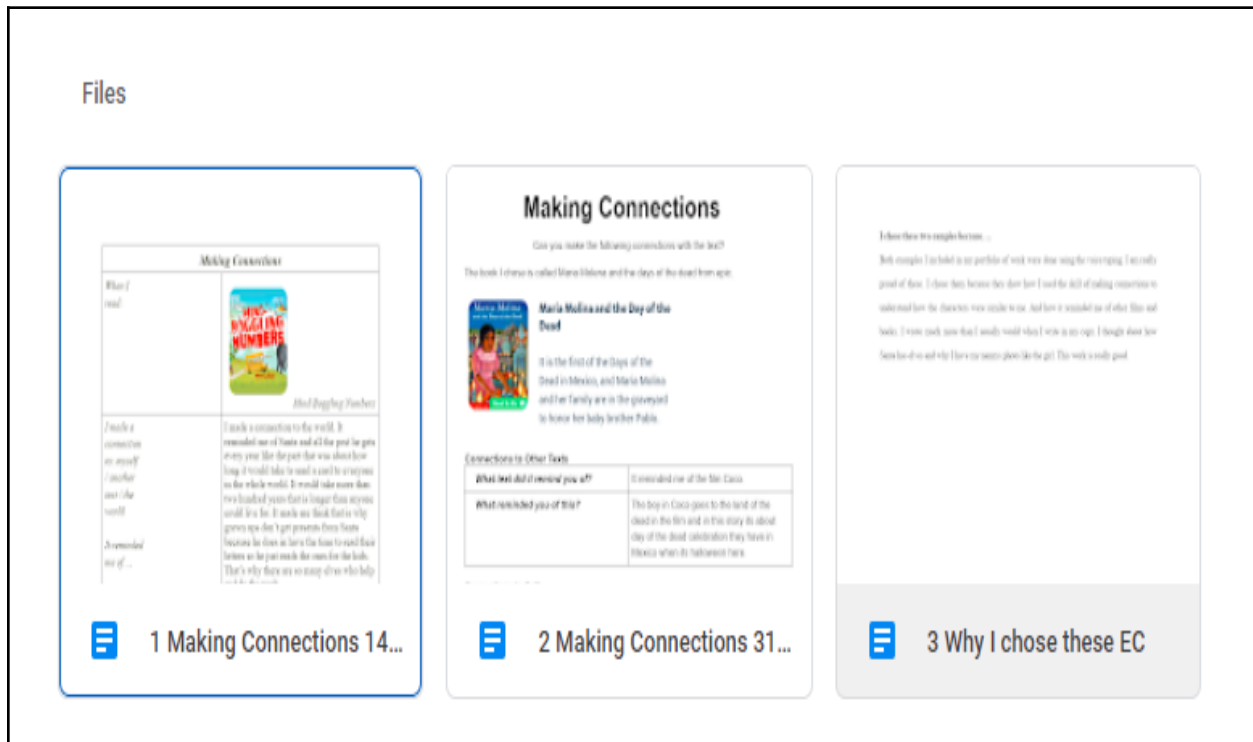


Figure 4.13: Sample of a Student’s Self Chosen Portfolio of Work on Google Drive

Using Agency to Make Considered Decisions

Taking responsibility for learning was also found to impact the decisions the children made with regards to choice of digital tools. The following quote demonstrates the presence of learner agency and how it was used to make a considered decision: “The extension you showed me how to use. It was so bad. It just kept glitching. I didn’t use it after a while” (PIGD, 3rd March 2022).

In this case, taking responsibility for learning gave the student autonomy to take control of their own learning. This led to the presence of self-determination (Deci & Ryan, 1985), as the child used their own judgement to no longer use the extension I had suggested. Evidence of my increasing awareness of this can be seen in the following teaching observation:

Added the read aloud extension to X's device last week. He has decided not to use it anymore, it was frustrating him. Appeared to be managing very well without it. Determined to get on with the task despite being stuck on some of the words when reading (TO, 9th February 2022).

The Significance of Personalised Feedback

Feedback acted as a means to affirm the responsibility which the children were taking over their own learning. Moving beyond surface features (Clarke, 2001) when providing feedback had a notable impact on the students' levels of intrinsic motivation. In the post-intervention group discussion with the children, one student detailed how informative feedback (Devitt et al., 2020) was meaningful for them as it provided actionable data (Wayman & Stringfield, 2006) on how to increase their competency levels, empowering them to feel self-determined (PIGD, 3rd March 2022). The other students in the group expressed their agreement, with one student adding:

The tips you gave me on how to type with my fingers properly, well I still use it and I even do the typing game at home. I'm getting really good at it (PIGD, 3rd March 2022).

Students also shared that they felt proud of their performance when it was acknowledged in the feedback by the teacher, with one student writing, "teacher noticed that I was pretty good at looking-up what I wanted on Epic" and how this made them realise they were "better at using the digital tools" (CR, 7th March 2022) than they had initially realised (Deci & Ryan, 1985). Authentic happiness was being fostered (Seligman, 2011). I reflected on this in my journal, noting how I could see the creation of what I called 'quick wins' (Kotter, 1995) helping to empower the children (TRJ, 4th February 2022):

The little ‘quick wins’ as I’m calling them to myself seem to be working really well for helping the children to feel acknowledged and appreciated. I’m trying to be specific so the children feel the comments have meaning and of course making sure to focus on the positive (TRJ, 4th February 2022).

However, despite the many positives which the provision of meaningful feedback offered, I found that feedback alone could not sustain motivation levels during the intervention. There were multiple variables at play and I needed to acknowledge the limitations of feedback. I was experiencing student-led learning as a multilayered construct (Shemshack & Spector, 2020) and I found myself becoming frustrated at times, particularly when the students decided not to use the feedback.

In my reflective journal on 31st January 2022 I detailed this frustration, asking myself “how can I increase the likelihood of the children actually acting on the feedback I am giving them?”. This was prompted by an experience during a lesson earlier that day. I previously offered the following feedback to the student, who had been using speech to text software to record his learning:

Great work trying out the speech to text software. When you spoke slowly and clearly it helped it to work more effectively. Take care not to rush what you are saying and you will get even better at using it (TO, 27th January 2022).

However, the student was becoming increasingly fed up with the speech to text function during the lesson on 31st January. This can be evidenced in Figure 4.14.

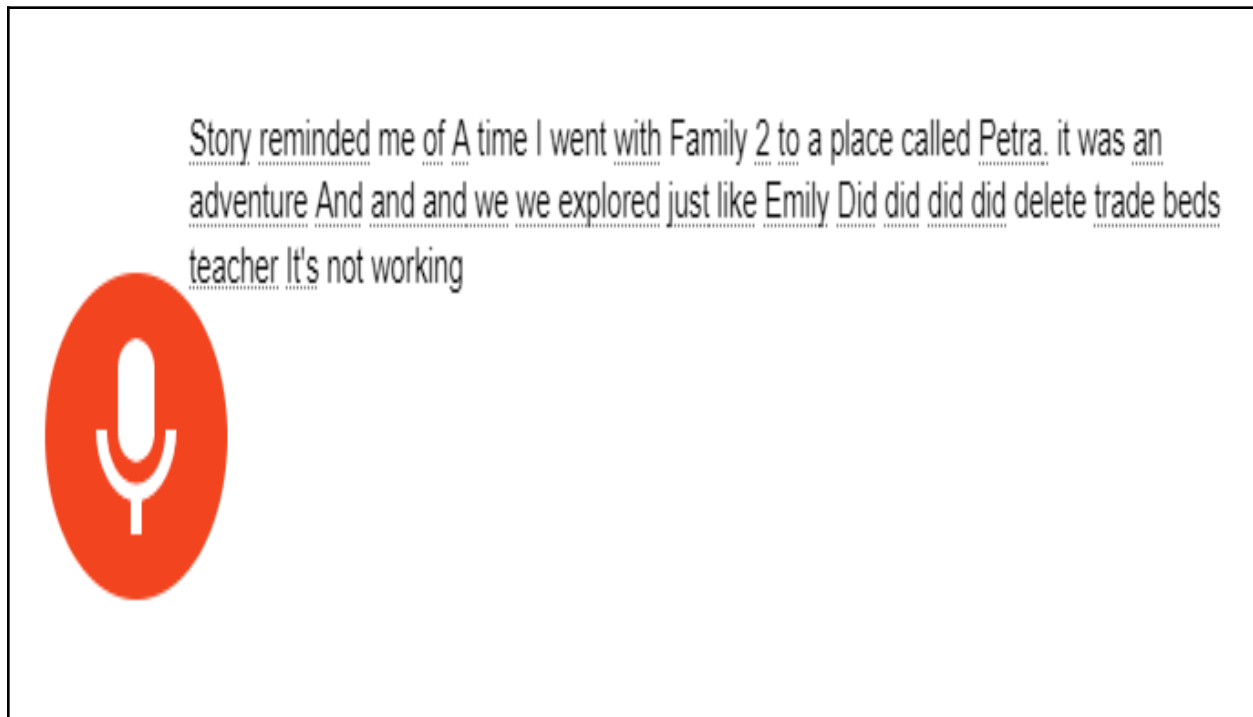


Figure 4.14: Speech to Text Function Frustration

The student decided to disregard my advice, instead choosing to give up on the software. Out of frustration, he began to record his learning using his copy instead. I shared this observation with critical friends, who suggested it was a sign to increase my scaffolding input on how to use the digital functionality tools. I explored the necessity of scaffolding at this time in my journal too, writing “I am learning that scaffolding is an ongoing process, particularly as the children aren’t familiar with the specifics of how to use some of the digital tools”. I could see that my feedback needed to be followed up with explicit guidance in order for learning to be personally relevant (Kirschner et al., 2006; Mayer, 2004, Schmid et al., 2022), particularly when it came to using digital tools as part of the process.

On further reflection, I can also see how this example showed the reality that the facilitation of personalised learning is a complex process (e.g. Kucirkova et al., 2021). As

reflected in Gross et al.'s report (2018), the challenge I was facing at this time related to my reluctance to fully trust the students to take control of their learning. The reality of this can be seen in an excerpt from my reflective journal below:

When I think about the example of the child choosing not to follow my specific feedback again, I now think it shows the reality that implementing personalised learning can involve a power struggle between teacher and student (TRJ, 27th July 2022).

I shared this with my critical friend, who agreed with my updated thinking (CF, 30th July 2022). Ultimately, I have found that for students to feel empowered to take responsibility for their learning, there must be an “essential trust in the capacity of others” to think and to learn for themselves (Rogers, 1983: 188).

4.3.2 Making Choices

The following subtheme will analyse my finding that choice was a central element in enabling student agency. This is suggested in the literature (DeMink-Carthew & Netcoh, 2019; Bernacki et al., 2021, Schmid et al., 2022). Drew's (2019) study on giving children choice in the classroom found that providing choice plays an important role in empowering children to become critical, autonomous thinkers. Similarly, my research found that choice played a pivotal role in empowering the children.

The Role of Choice in enabling Responsibility for Learning

The active involvement of students through making choices enabled me to become a facilitator of personalised learning rather than a director of differentiation (Bray & McClaskey, 2013). The

result was a move towards student-led learning, a type of learning which was experienced as authentic, meaningful and relevant by both teacher and learner.

Providing choice enabled the students to become active users of technology rather than passive consumers. The following dialogue extract demonstrates one of several dialogues which highlight how this enabled the children to take responsibility for their own learning:

Child: I have the pictures I want and I saved them on the computer. I need to put it into my BookCreator.

Teacher: OK, do you know how to do that or would you like some help?

Child: I need help with the short-cut you showed me the last time. I have lots of pictures, it's going to take a while.

Teacher: No problem. Maybe you could try the video record function to save time adding so many photos, you could talk about the connections you made and refer to the photos you saved?

Child: No, I want to add the photos. They really show the connections I made with the story.

Teacher: That's perfect, I'll show you the short-cut again.

Child: Thanks. I don't mind if it takes long.

Figure 4.15: Teacher Observation, 16th February 2022

As can be seen in the example above, individualisation and creativity were being facilitated by enabling the children to engage with and represent their learning in a way that worked best for them. Having choice was important. But in order for the children to use choice to take responsibility, the learning needed to have personal meaning.

The child in the example above used her agency to make decisions about how to manage content digitally. She linked being a digital-learner to the comprehension skill we were focussing

on, making connections. Providing multiple modes for learners to represent themselves as a learner unlocked the use of agency. This increased motivation for content creation, problem-solving and creativity, all of which are included as attributes of the key competency 'Being a Digital Learner' (NCCA, 2021: 27).

The Impact of Choosing Digital Icons and Characters

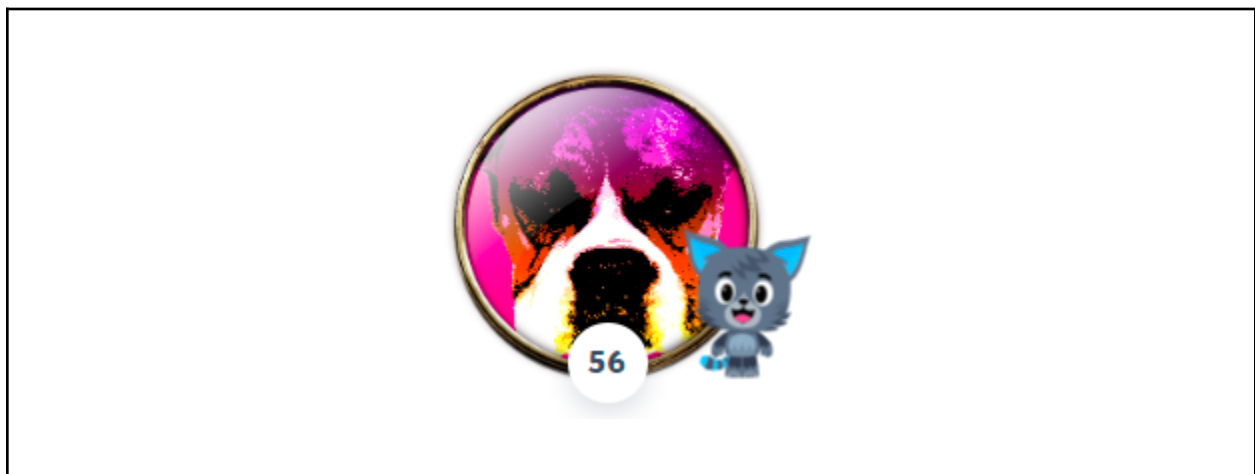


Figure 4.16: Sample of a Digital Character a Student Selected Themselves

Source: Screenshot included in TRJ reflection, 21.04.22

Within the digital library itself, possibilities for personalisation of icon and character emerged. When a student reads for a predetermined length of time, the app unlocks the possibility to personalise logos and to 'hatch' new characters. This feature engaged the children to share their progress informally with one another. In my TO on 3rd February 2022 I noted:

One child asked another about what level they were on in the app. Next of all they were talking about what icon they chose and whether they had cracked the egg to choose a character.

My critical friend agreed that these elements are similar to traditional gaming experiences and that the children might have felt motivated to get to the next level or to unlock the next character, especially if it was perceived to be desirable by others in the group.

Choosing to Engage as a Result of Actionable Data

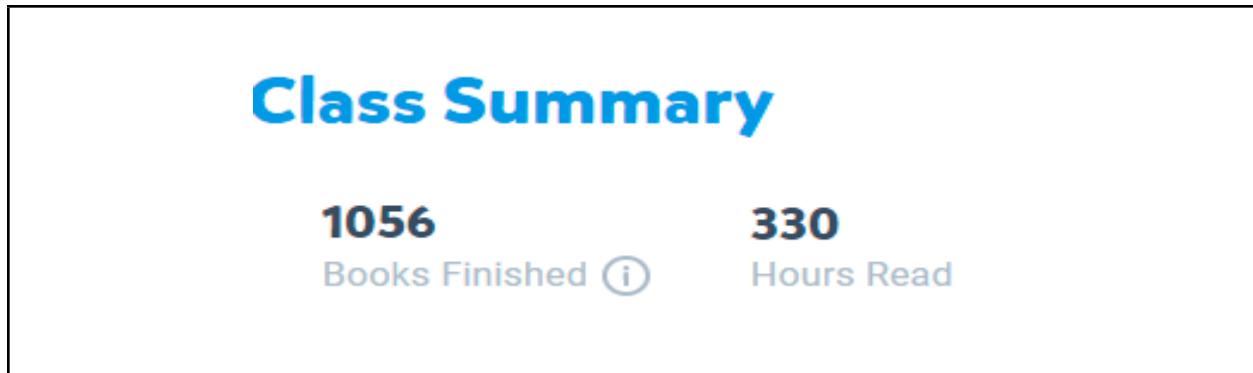


Figure 4.17: Sample of Actionable Data Made Available to the Teacher Within the Online Library 'Epic'

Source: Screenshot included in TRJ, 03.03.22

Sharing actionable data from a digital library app with the children was found to temporarily increase motivation for reading. As we were approaching the milestone of 1000 books read as a group, I shared this information with the children and we set a challenge to see if we could achieve '1000 books' before the end of the month. I wrote about this in my journal:

Sharing the Epic stats during Lockdown and setting goals seemed to correlate with an impact on reading engagement so I thought I would let the groups know we are close to 1000 books read today (TRJ, 7th February 2022).

My data found that using personalised actionable data in this way motivated the children to choose to log in at home. One child stated, "I really want us to get to 1000. I logged in at home and read a book after school yesterday" (TO, 8th February 2022). As can be seen in Figure

4.18, the data on the reading app suggested that some children began to log in to read every day, despite the fact that reading comprehension lessons took place on only three out of five days.

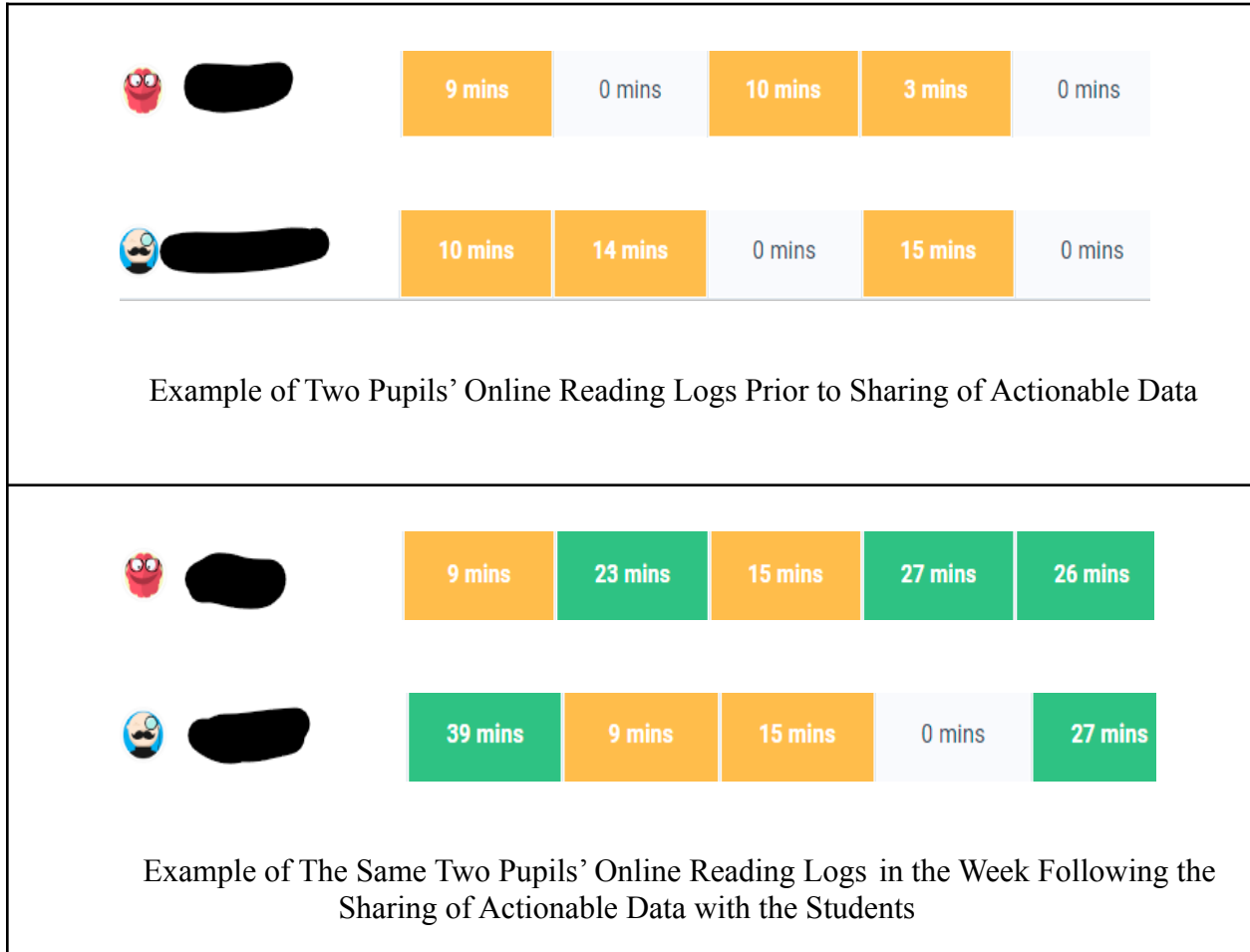


Figure 4.18: The Impact of Sharing Actionable Data from the Reading Website

Source: Screenshots included in TRJ reflection 21.02.22

However, without sustained promotion from the teacher, the novelty did wear off. I reflected: “The children are still motivated to get to 1000 books. Less logins to the app outside of lessons, sharing the data seemed to have a short term impact” (TRJ, 21st February). Despite this, it was noted as motivating by one child in the post-intervention feedback; “Finding out we got to

1000 books is something I remember. I logged in on my app at home some days.” (PIGD, 3rd March 2022). Whilst research by Fitzgerald et al. (2018) suggests that teachers benefit from actionable data when using digital learning technologies, in my case it appears to have had an impact on the children also.

4.4 Conclusion

As my data suggests, personalised learning cannot be achieved if the sole focus is placed on the role of the teacher in enabling it. Both teacher and student were required to adopt an active role in the process. As the teacher, I needed to facilitate adaptive, authentic learning experiences (Walkington & Bernacki, 2020). The students, on the other hand, were required to use their agency to purposefully engage with the process in a manner which reflected their need, interests and preferences. As suggested by the UDL principles, they were also required to make choices in how they would achieve the learning outcome (CAST, 2018).

As a result of my research, I found that digital tools facilitate personalised learning. This type of learning has the potential to be an effective springboard for student-led learning of reading comprehension. Digital-based learning allowed for individual personalisation based on the students’ interests and needs, which impacted levels of engagement positively as the children felt an increased sense of ownership in their own learning. The element of choice and the possibility for each child to engage at their own pace and skill level was also found to be significant. The role of the teacher as a facilitator who scaffolds and guides the children in their own learning was found to be an essential element of the process as it placed the children at the centre of the learning experience, thereby promoting and unlocking student agency. Investing explicit teaching time to the skills of ‘being a digital learner’ and ‘learning to be a learner’

(NCCA, 2020; DES, 2022) was also found to impact positively on the learning experience and outcomes.

Chapter Five: Conclusion

5.1 Introduction

This concluding chapter outlines how action research has enabled me to create new knowledge (McDonagh et al., 2019) through “action and reflection, theory and practice” (Bradbury, 2015: 1) and how this has enabled me to find a way to enhance my teaching of reading comprehension. Learning has emerged at a practical, personal and theoretical level (Sullivan et al., 2016: 121). I will share how “constant vigilance in reflecting” (Sullivan et al., 2016: 116) on my practice has resulted in the generation of my living theory (McNiff & Whitehead, 2006). I will present my claim to knowledge, exploring how the improvements to my practice are grounded in living more closely towards my values (Reason & Bradbury, 2001).

This final chapter will also detail the significance of my research and how I am attempting to legitimise my new learning by continuous critical reflection and dialogue with colleagues (Reason, 2006).

5.2 Practical Learning

In my reflective journal at the beginning of this MEd journey I wrote, “I want to do my best to foster a love for learning within my students” (TRJ, 18th August 2021). Prior to the intervention, I struggled with how I could achieve this when teaching reading comprehension during the ongoing Covid-19 pandemic. My focus on increased separation and decreased interaction due to Covid-19 restrictions (DES, 2021) caused me to retreat to a didactic approach in my teaching of reading comprehension, one in which student agency was being impacted by a lack of choice

(Schmid et al., 2022) and a passive learning experience (O'Neill & McMahon, 2005).

I had found myself becoming overly reliant on direct instruction in my teaching, using it to act as a pedagogical pathway towards effectively teaching complex reading comprehension skills (Ashman, 2021). Through engagement with critical self-reflection, I came to realise that the didactic approach I had adopted was resulting in the children becoming passive learners. This was in direct conflict with my values of care, trust and empowerment.

My own stuckness in relation to teaching reading comprehension has evolved as I moved beyond a focus on the acquisition of knowledge and skills, towards a more holistic model of learning. At a practical level, I now realise the significance of adopting a pedagogic approach that offers the students the opportunity to discover information for themselves based on their own interests, needs and preferences when using digital tools. I can now claim a greater understanding for how to enable a shift towards more active, student-led learning, during which the students can demonstrate their potential to move beyond being consumers of technology (NMC, 2015, cited in DES, 2015: 12) in order to become knowledge creators (Sullivan et al., 2016: 121).

This new learning has resulted in a significant and positive change to my practice. It has enabled me to embed digital tools creatively into my reading comprehension lessons and to develop a framework for how to enable personalised learning to become a reality. My role has shifted from didactic teaching to empowering the students to use their agency to engage with the process, to question, to problem-solve, to take charge of the decision making and to seek support when they need guidance along the way.

The less 'successful' results of my research also led to practical learning. During the

intervention, I struggled at times to balance teacher control and student autonomy. This was evident in how I expected students to take on board my feedback. I did not anticipate the fact that it would be necessary for scaffolding to ebb and flow according to the unique needs of the children at that particular moment (Shanahan et al., 2019). I needed to trust the children to take control of their own learning if I wanted to embrace personalised learning in my teaching. I now realise it would have been a better option to resist the urge to have all the answers, instead allowing the children the opportunity to discover the information for themselves. This could be achieved with the flexible use of responsive scaffolding to guide the students towards achieving their full potential, as proposed by Porath and Hagerman (2021) and Järvelä (2006).

Scaffolding was found to be a core component in enabling student-led learning, particularly with regards to enabling the students to leverage using the digital tools to aid their learning. It allowed me, as the teacher, to use my expertise to guide the students towards achieving their full potential, whilst also positively impacting motivation, interest and a sense of autonomy amongst students. In essence, I learned that responsive scaffolding can enable cognitive activation as it has the potential to encourage students to think more deeply in order to find a solution rather than simply providing the answer.

5.3 Personal Learning

As a result of engaging with and critically reflecting on this experience, I have come to realise that my teaching of reading comprehension does not need to exist solely at the teacher-led end of the continuum (Blair et al., 2007). I have learned that discovery and explicit learning can co-exist, as proposed by Ashman (2021). I now realise that I can combine direct-instruction of reading skills and digital-learning with the independent use of digital tools as a means of making

personalised learning a reality.

On a personal level, I have gained a greater awareness of my role as the teacher in facilitating this and also, of the pivotal role which trust plays in empowering the students to want to do their best. As I wrote in my reflective journal:

I feel when you embody trust as a teacher it allows for the individuality of the children to shine through. With the creation of that safe space, there is so much potential for meaningful learning (TRJ, 16th August 2022).

Through critical reflection using Brookfield's four lenses (2017), I have now reached a conclusion that personalised learning enables student-led learning. It has the potential to positively impact learner outcomes such as student motivation, agency and identity (Bernacki et al., 2021; Schmid et al., 2022). My new approach to teaching indicates a heightened awareness of the importance of gradually releasing responsibility for learning towards the children and promoting student voice and choice so that students can be enabled to become agents of change in their own learning (O'Neill & McMahon, 2005; DeMink-Carthew & Netcoh, 2019). I have discovered the importance of beginning "where the learner is, not where the learner ought to be" (Froebel, cited in Bruce, 2012: 30).

5.4 My Theory of Practice

By taking action on my concern relating to my didactic approach to teaching reading comprehension, I have generated new research knowledge. Greenwood and Levin write that "action research is one of the most powerful ways to generate new research knowledge" (2014: 7 cited in Sullivan et al., 2016: 121). I have learned that high quality, personalised, digital-based learning can be enabled with a combination of the following two elements:

1. Direct instruction and guidance from the teacher with regards to exploring digital-skills and learning to be a learner.
2. Student-led learning with regards to choosing content and choosing how to demonstrate mastery of the learning goal, as reflected in the UDL principles. Choice can be facilitated according to needs, interests, skill level and/or preference.

In this regard, my research has led me to develop a theory of practice that student empowerment can be enabled during personalised, digital-based learning in two interconnected ways; firstly through the provision of experiences which leverage choice and secondly; through opportunities to engage with *being* a digital-learner. Both experiences involve the student taking an active role in using responsibility to positively impact their own learning experience and outcomes.

I found that the use of technology needed to have relevance to the children in order for them to engage with being a digital learner. It needed to meet the interests and needs of all learners. This was made possible by facilitating multiple modes of engagement, multiple modes of representation and multiple modes of action and expression (CAST, 2018). This has informed my understanding of the principles of UDL and how they relate to personalised learning.

The outcome is a paradigm shift from teaching to learning, whereby the student is enabled to lead their own learning. I have learned that the role of the teacher is essential to enable this to happen. Responsive guidance and direct instruction is necessary, ebbing and flowing according to the individual and the situation.

Ultimately, personalised learning, when successful, enables the student to become

self-determined in making responsible decisions and choices for their own learning path rather than passively accepting those determined by others.

5.5 The Significance of my Research and Ideas for Future Research

My research is both timely and fitting considering the DES recent publication of the Digital Strategy for Schools (2022), in which the role of using digital technologies to personalise the learning experience is advocated. Additionally the role of the teacher as a facilitator and that of the learner as an active agent in their own learning is highlighted (DES, 2022: 23).

Impact on Learner Agency: Potential to Unlock Intrinsic Motivation

The provision of personalised, digital-based learning experiences enabled the children to experience themselves as agentic learners. The enactment of student agency resulted in the students feeling empowered to use their voice, to make responsible choices and to take ownership over their role in the process.

In relation to an idea for future research, the degree to which this impacts the children's levels of self-efficacy could be explored. This could extend to researching how personalised learning impacts the children's perceptions of themselves as life-long learners.

Contribution Towards Developing a Framework for Personalised Learning

I now have a greater awareness of why the term personalised learning has proven so difficult to define universally. Personalised learning is unique to the individual. It acknowledges that "teaching and learning in action is fluid and flexible" (GOI, 2021a: 6). In order for personalised learning to be successful, teachers often need to embrace emerging learning opportunities which

arise for the students (GOI, 2021a: 6). This involves advocating for a learner-centred approach (DES, 2022: 23).

In relation to technology-mediated learning, I can now claim to have a greater awareness of my role as the teacher in facilitating “personalisation through the use of digital technologies” (DES, 2022: 21). In order for digital technologies to become embedded in schools, learning opportunities must have meaning and relevance for the children. It must be active rather than passive.

An idea for future research in this regard is to explore the degree to which school culture impacts the facilitation of such an approach. An incremental approach to personalised learning could be investigated in this regard. As such, the potential for empowerment in relation to personalised learning and teacher agency could be realised. This suggestion is contextualised by my value for empowerment, coupled with critical reflection on the difference between my past and current school environment and how this impacted my agency in relation to exploring personalised learning.

Reduction of Barriers to Learning

I have also learned that barriers to learning are minimised by incorporating a personalised learning approach. Each individual can make choices and take actions to fully participate in their own learning. My idea for future research in this regard relates to my increased understanding of the UDL approach (CAST, 2018). I believe it would be worthwhile to research the potential for the principles of UDL to assist Irish teachers in their design of a personalised approach to learning. This could provide greater clarity on how to successfully implement such an approach

in the Irish context.

5.6 Conclusion

My own stuckness in relation to teaching reading comprehension has evolved as I moved beyond a focus on the acquisition of knowledge and skills, towards a more holistic model of learning. This involved sharing the power, which was afforded to me as teacher, with the students. My role shifted from teaching to empowering the students to use this power to engage with the process, to question, problem-solve and to take charge of the decision making in relation to their own learning.

I have accepted that “we should never lose the sense that we’re imposters struggling in the dark, trying to draw meaning from contradictory and often opaque experiences (Brookfield, 2017: 231)”. It is in this space that the possibilities of new learning and transformational change in my teaching have emerged and will continue to do so as I embrace action research as a real, purposeful way to navigate change in my practice (Sullivan et al, 2016).

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Appendices

Appendix A: Thematic Elements of Personalised Learning (adapted from Bernacki et al., 2021)

Thematic Elements of Personalised Learning (adapted from Bernacki et al., 2021)		
1. Learner Characteristics	2. Design Components	3. Learner Outcomes
Characteristics: <ul style="list-style-type: none"> - Prior knowledge / Skill - Interests - Goals - Needs - Preferences. 	Characteristics: <ul style="list-style-type: none"> - Pace - Approach - Objectives/content - Sequence. 	Characteristics: <ul style="list-style-type: none"> - Choice - Scaffolding - Technology - Assessment - Agency - Identity - Motivation - Performance / Skill.

Appendix B: Collection of Personalised Learning Definitions as found in the Literature

Source:	Definition of Personalised Learning:
Chan Zuckerberg Initiative (2020, cited in Bernacki et al., 2021).	The definition of personalised learning provided by The Chan Zuckerberg Initiative includes the importance of supportive relationships and a holistic view in relation to education. They believe that teachers and students must be supported as whole people, “supporting not only academic achievement, but also their physical, social, emotional, and identity development” (Chan Zuckerberg Initiative, 2020 cited in Bernacki et al., 2021:6).
Järvelä (2006).	Järvelä defines personalised learning to include seven critical dimensions comprised of the following; key skills, guidance, scaffolding, collaboration, assessment, technology and integration. (Järvelä, 2006: 32).
Keefe (2007).	Keefe (2007) describes personalised learning as the adaptation of instruction by a teacher to attend to the needs and interests of the students.
Kucirkova et al. (2021).	Kucirkova et al. (2021) frame their definition of personalised learning based on a comprehensive literature review, an evaluation of their own work in the area of personalised educational technology and also on an empirical analysis of interview data. From the research, it emerged that professionals value the following types of personalisation opportunities; customising for age-appropriate content, support for student choice and automated guidance based on learner responses. They state, “we defined personalised design and instruction as education that offers support, progression pathways and selection of content that can be tailored automatically or directly to individual users” (Kucirkova et al., 2021: 1845).
Miliband (2006, cited in Lee, Huh, Lin and Reigeluth, 2018).	Miliband’s definition for personalised learning includes tailoring the learning experience according to the individual’s needs and prior experience.
Patrick et al. (2013).	Patrick et al. (2013: 4) define personalised learning as “tailoring learning for each student’s strengths, needs and interests – including enabling student voice and choice in what, how, when and where they learn – to provide flexibility and supports to ensure mastery of the highest standards possible”.
Porath and Hagerman	Porath and Hagerman suggest personalised learning can be presented in a wide variety of forms, including competency-based learning, multi-aged

(2021).	instruction, flipped learning and computer-adaptive instruction (2021: 28).
Spector (2014, 2018, cited in Shemshack & Spector, 2020: 2).	Spector's definition of personalised learning relates specifically to digital learning environments. He proposes that a personalised learning environment must be adaptive to individual knowledge, experience and interests in order for it to be effective and efficient.
Zmuda et al. (2015).	Zmuda et al. (2015) define robust personalised learning as something which "addresses both the context and culture of teaching and learning and is both student-centered and student-driven" (2015: 57).

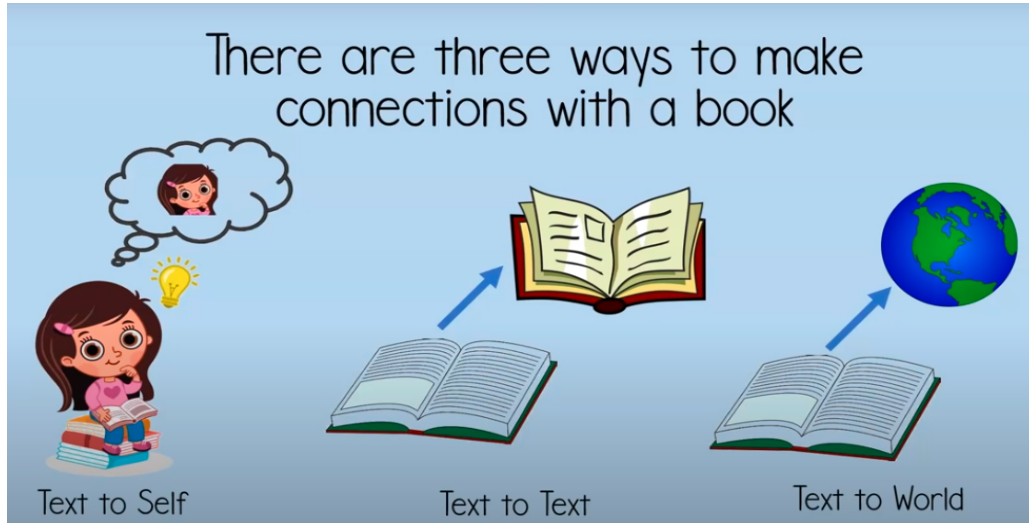
Appendix C: Addressing my Ancillary Research Questions in my Themes and Subthemes


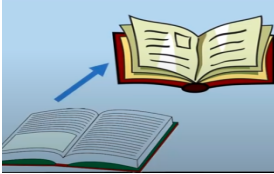
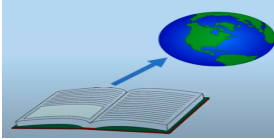
Research Question: How Can I Use Personalised, Digital-Based Learning to Enhance my Teaching of Reading Comprehension?		
Theme	Subtheme	Ancillary Questions
Teacher as Facilitator	A Gradual Release of Responsibility	How does a transfer of power from teacher to student impact the learning process?
	Establishing a Supportive Climate	How can digital tools be used to personalise the learning task? How does personalised learning affect my teaching of reading comprehension?
Students as Agentic Learners	Taking Responsibility	How does a transfer of power from teacher to student impact the learning process?
	Making Choices	How does personalised learning affect my teaching of reading comprehension? How can digital tools be used to personalise the learning task?

Appendix D: Sample Anchor Chart - Making Connections

**** I can relate the text to my own experiences... ****

***** I can use my background knowledge *****



<p>Text to Self</p> 	<p>This reminds me of a time...</p> <ul style="list-style-type: none"> - A memory - Something that happened to you - Or to someone you know - they could be real or a character from a story you read
<p>Text to Text</p> 	<p>This reminds me of another book / an audio-book / a read-aloud book...</p> <p>This reminds me of an audio-book...</p> <p>This reminds me of a film / video...</p> <ul style="list-style-type: none"> - Remember a text can be a book, video, audio, poster, image.
<p>Text to World</p> 	<p>This reminds me of something I heard about...</p> <p>This is like something I heard on the news...</p> <p>This happened when...</p>

Appendix E: Teacher Observation Sheet Template

Teacher Observation Sheet **Date:** _____ **Group:** _____

Autonomy	Relatedness	Competence

Unstructured Observations:

Appendix F: Sample Open Ended Learning Task for Making Connections

Making Connections

Can you make the following connections with the text?

Connections to Other Texts

What text did it remind you of?	
What reminded you of this?	

Connections to Self

What memory or experience did it remind you of?	
What reminded you of this?	

Connections to Wider World

What in the wider world did it remind you of?	
What reminded you of this?	

Appendix G: Sample Open Ended Learning Task for Making Connections

<i>Making Connections</i>	
<i>When I read:</i>	
<i>I made a connection to: myself / another text / the world</i> <i>It reminded me of....</i> <i>Because...</i>	

Appendix H: Pre-Intervention Student Questionnaire Template

Do you enjoy reading in your own time?

Yes

No

What words do you think of when you hear the term personalised learning?

Your answer _____

What do you like to read or learn about? Write a couple of words or sentences about the things you are interested in.

Your answer _____

How do you feel when you and your classmates are reading the same text at the same time?

Your answer _____

Is there anything you like about our reading comprehension lessons?

Your answer _____

Is there anything you like about our reading comprehension lessons?

Your answer

Is there anything you would like to change about our reading comprehension lessons

Your answer

Any other comments about our reading comprehension lessons

Your answer

Submit

Clear form

Appendix I: Post-Intervention Student Questionnaire Template

Student Questionnaire (Post-Intervention)

Selection of questions for students upon completion of the task



What do you think personalised learning is? *

Your answer

Did teacher help you to understand what personalised learning is? If so, how? *

Your answer

Did the reading lessons help you to follow your interests and needs? If so, how?

Your answer

Any other comments you would like to make about personalised learning?

Your answer

What, do you think, could have made the task easier and how?

Your answer

Do you feel that using the digital tools helped you with your reading? Yes / No/ Unsure. Please explain your answer

Your answer

What was your favourite part of the intervention?

Your answer

Any other comments

Your answer

Submit

Clear form

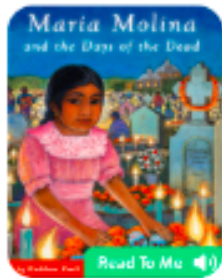
Never submit passwords through Google Forms.

Appendix J: Student Sample of work from Learning Portfolio - ‘Making Connections’

Making Connections

Can you make the following connections with the text?

The book I chose is called: Maria Molena and the days of the dead from epic



Maria Molina and the Day of the Dead

It is the first of the Days of the Dead in Mexico, and Maria Molina and her family are in the graveyard to honor her baby brother Pablo.

Connections to Other Texts

<i>What text did it remind you of?</i>	It reminded me of the film Coco.
<i>What reminded you of this?</i>	The boy in Coco goes to the land of the dead in the film and in this story <u>its</u> <u>about day</u> of the dead celebration they have in Mexico when <u>its</u> halloween here.

Connections to Self

<i>What memory or experience did it remind you of?</i>	It reminded me of my nanny who died when I was younger.
<i>What reminded you of this?</i>	My family <u>have</u> a mass every year to remember her and we go to the graveyard on cemetery Sunday. <u>Its</u> like the way the girl in the story has a special day to remember her brother and her gran. I have a photo of my nanny to remember her <u>aswell</u> , like the girl has and I can remember her that way too.

Connections to Wider World

<p><i>What in the wider world did it remind you of?</i></p>	<p>It reminded me of Halloween and how we celebrate Halloween every year. Really I wonder <u>is it</u> so we can remember the people who died. I think it might be but we get to dress up and get so <u>much</u> sweets too.</p>
<p><i>What reminded you of this?</i></p>	<p>Because the girl talks about Halloween in the story. She said that the day of the dead is at the same time but we celebrate it differently than in Mexico</p>

Appendix K: Ethics Permission to Conduct Research Study for BOM



Maynooth University,

Froebel Department of Primary and Early Childhood Education.

29/11/2021

RE: Permission to Conduct Research Study

Dear Principal and Board of Management,

I am writing to request permission to conduct an action research study with my 4th and 5th class reading comprehension groups, whom I teach in my role as a special education teacher. I am currently undertaking a Master of Education in Froebel Department of Primary and Early Childhood Education, Maynooth.

My proposed research study is entitled, 'How can I use personalised, digital-based learning to develop my teaching of reading comprehension in a senior primary special education setting?'. In order to do this, I intend to facilitate the children to pursue a personal interest, whilst focusing on improving their reading comprehension skills. This may include the use of digital based resources, such as Epic (online library) and Bookcreator.

The information needed to complete the study will include children's anonymised work samples, questionnaires for child participants, teacher observations and checklists.

All information collected will be treated in confidence and neither the school nor the participants will be identifiable in any aspect of the research project. Information will be destroyed in a time-frame as per GDPR, in accordance with the University guidelines. Participants will be informed that they may withdraw from the study at any time. The research will not be carried out until ethical approval is granted by the Froebel Department of Primary and Early Childhood Education. On condition of receiving your consent to approach the pupils and parents/guardians/caregivers to participate in the study, I will arrange for informed consent to be obtained from the parents/guardians/caregivers of participants and from the children involved.

Your approval to conduct this study is greatly appreciated. If you have any queries on any part of this research project, feel free to contact me by email at XXX.

If you agree, kindly sign and return the consent form attached.

Yours faithfully,

Appendix L: Ethics BOM Consent Form



Maynooth University
National University
of Ireland Maynooth

Maynooth University,

Froebel Department of Primary and Early Childhood Education.

Board of Management Consent Form:

I give consent for you to approach parents/guardians/caregivers to gain consent for pupils to participate in the given Research Project.

I have read the Letter of Consent explaining the purpose of the research study and understand that:

- The role of the school is voluntary.
- I may decide to withdraw the schools' participation at any time.
- The participants will be given informed consent and will understand that they may only participate in the study with this consent.
- All information obtained will be kept confidential and will be treated in strictest confidence.
- The participants' names will not be used and individuals will not be identifiable throughout the study.
- The school will not be identifiable in any part of the study in order to preserve confidentiality and anonymity of all participants.
- Participants may withdraw during any part of the study without consequence. Participants will not receive any incentive to participate in the research study.
- I may seek further information about the research study from Linda Champkin via email at xxx.com

Chairperson's Signature

Date

Appendix M: Parent/Guardian/Caregiver Letter of Consent



Maynooth University,

Froebel Department of Primary and Early Childhood Education.

RE: Letter of Consent for parents/guardians/caregivers

Dear Parent(s)/Guardian(s),

I am currently pursuing a postgraduate Masters in Education at Maynooth University. As part of the course, I am conducting a research project. The focus of my research is based on my teaching of reading comprehension skills. My proposed research study is entitled, 'How can I use personalised, digital-based learning to develop my teaching of reading comprehension in a senior primary school setting?'

In order to do this, I intend to carry out research by implementing an individualised reading intervention focused on enhancing children's reading comprehension skills. This may include the use of digital based resources, such as Epic (online library) and Bookcreator. The learning activities will take place during the school day, as per my regular learning support timetable.

The information needed to complete the study will include children's anonymised work samples, questionnaires for child participants, teacher observations and checklists.

Your child's name and the name of the school will not be included in the thesis that I will write at the end of the research. Your child will be allowed to withdraw from the research process at any stage. They would not have to give any reason for doing so.

All information will be confidential and information will be destroyed in the stated time frame of 10 years, in accordance with the University guidelines and GDPR regulations. The correct guidelines will be complied with when carrying out this research. The research will not be carried out until approval is granted by the Froebel Department of Primary and Early Childhood Education.

I would like to invite you and your child to give permission for him/her to take part in this project. Please see the consent form which is attached with this letter.

If you have any queries on any part of this research project feel free to contact me by email at xxx.com

Yours faithfully,

Appendix N: Parent/Guardian/Caregiver Consent Form



Maynooth University,

Froebel Department of Primary and Early Childhood Education.

Letter of Consent for parents/guardians/caregivers/Guardians:

I have read the information provided in the attached letter and all of my questions have been answered. I voluntarily agree to the participation of my child in this study. I am aware that I will receive a copy of this consent form for my information.

Parent(s)/ Guardian(s) Signature(s) _____

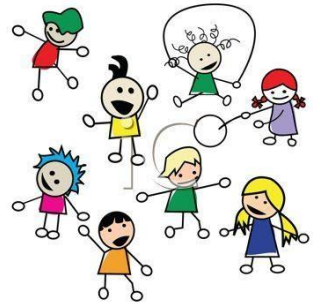
Date: _____

Name of Child: _____

Child's signature: _____

Date: _____

Appendix O: Child Participants Information Sheet



Information Sheet: Child Participants

Child's name

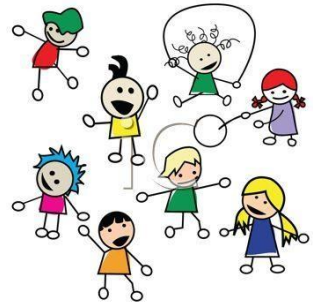
I am trying to find out how I can teach reading comprehension in a way that might increase your motivation and learning by giving you more choice. I would like to watch you and listen to you when you are in school, to write down some notes about you and speak to you about this. This would be during our twice weekly group comprehension sessions.

Would you be ok with that? Circle one. YES NO

I have asked your Mum or Dad or Guardian to talk to you about this. If you have any questions, I would be happy to answer them. If you are happy with that, could you sign the form that I have sent home?

If you change your mind after we start, that's ok too. You would not have to give any reason for this.

Appendix P: Child's Assent to Participate Form



Child's assent to participate

My parent/guardian has read the information sheet with me and I agree to take part in this research.

Name of child (in block capitals):

Signature: _____

Date: _____

Appendix Q: Critical Friend Letter of Consent



Maynooth University,

Froebel Department of Primary and Early Childhood Education.

RE: Letter of Consent for Critical Friends

You are invited to participate in a research study on the use of a personalised learning approach to the teaching of reading comprehension. Participation in the study involves ongoing participation and support as a critical friend, including a pre and post intervention critical friend group discussion.

The group discussions will require about 40 minutes of your time, during January-March, in total. During this time, you will be invited to share your observations on my current teaching of reading comprehension, on my observations and on the emerging findings from my research study. The group discussion will be conducted wherever you prefer and the findings will later be collated for the purposes of data triangulation. There are no risks or discomforts that are anticipated from your participation in the study. The anticipated benefit of participation is the opportunity to discuss perceptions, observations and concerns relating to the use of a connected learning approach for the teaching of reading comprehension.

Your name and any other identifying details will not be revealed in any publication of the results of this study. All data obtained will be kept confidential and secure for the duration of the study and thereafter. On completion of the thesis, the data will be kept for a further ten years, as per University regulations and then will be securely destroyed. Your participation in this research is completely voluntary and refusal to participate will involve no penalty. You may withdraw consent and discontinue participation from the study at any time for any reason without prejudice or penalty. If you do this, all information from you will be destroyed.

I would like to invite you to give permission to take part in this project. Please see the consent form which is attached at the bottom of this page. If you have any queries on any part of this research project feel free to contact me by email at xxx.com

Yours faithfully,

Letter of Consent for Critical Friend:

I have read the information provided in the letter above and all of my questions have been answered. I voluntarily agree to participate in this study as a critical friend. I am aware that I will receive a copy of this consent form for my information.

Signature _____ Date: _____

Appendix R: Information Sheet for Parents/Guardians/Caregivers



Maynooth University
National University
of Ireland Maynooth

Maynooth University,

Froebel Department of Primary and Early Childhood Education.

Information Sheet: parents/guardians/caregivers and Guardians

Who is this information sheet for?

This information sheet is for parents/guardians/caregivers and guardians.

What is this Action Research Project about?

Teachers undertaking the Master of Education at Maynooth University are required to conduct an action research project, examining an area of their own practice. This project will involve an analysis of the teacher's own practice. Data will be generated using observation, reflective notes and questionnaires. The teacher is then required to produce a thesis documenting this action research project.

What are the research questions?

The research questions for my specific study include:

- How can my use of a personalised learning approach develop my teaching of reading comprehension skills?
- How can the use of digital-based learning complement a personalised learning approach to developing reading comprehension skills?
- In what way can a personalised learning approach to reading comprehension impact upon student agency?
- Does personalised learning impact the students' motivation levels and their own sense of identity?

What sorts of methods will be used?

- Observation, Reflective Journal, Questionnaires, Interviews.

Who else will be involved?

The study will be carried out by myself as part of the Master of Education course in Maynooth University. The thesis will be submitted for assessment to the module leader Dr Bernadette Wrynn and will be examined by the Department staff. The external examiners will also access the final thesis.

What are you being asked to do?

Name: Linda Champkin

Student Number: 21251621

You are being asked for your consent to permit me to include your child in the process of undertaking this study with my students. In all cases the data that is collected will be treated with the utmost confidentiality and the analysis will be reported anonymously. The data captured will only be used for the purpose of the research as part of the Master of Education in Maynooth University and will be destroyed in accordance with University guidelines, after 10 years. The anonymised findings may be presented at conferences in future.

Contact details: Linda Champkin **Email:** xxx.com

Appendix S: Information Sheet for Critical Friends



Maynooth University,

Froebel Department of Primary and Early Childhood Education.

Information Sheet: Critical Friends

Who is this information sheet for?

This information sheet is for critical friends / teachers involved in the research study.

What is this Action Research Project about?

Teachers undertaking the Master of Education at Maynooth University are required to conduct an action research project, examining an area of their own practice. This project will involve an analysis of the teacher's own practice. Data will be generated using observation, reflective notes and questionnaires. The teacher is then required to produce a thesis documenting this action research project.

What are the research questions?

- How can my use of a personalised learning approach develop my teaching of reading comprehension skills?
- How can the use of digital-based learning complement a personalised learning approach to developing reading comprehension skills?
- In what way can a personalised learning approach to reading comprehension impact upon student agency?
- Does personalised learning impact the students' motivation levels and their own sense of identity?

What sorts of methods will be used?

- Observation, Reflective Journal, Questionnaires, Interviews.

Who else will be involved?

The study will be carried out by myself as part of the Master of Education course in Maynooth University. The thesis will be submitted for assessment to the module leader Dr Bernadette Wrynn and will be examined by the Department staff. The external examiners will also access the final thesis.

What are you being asked to do?

Name: Linda Champkin

Student Number: 21251621

You are being asked for your consent to participate in the role of critical friend during the process of me undertaking this study with my students. In all cases the data that is collected will be treated with the utmost confidentiality and the analysis will be reported anonymously. The data captured will only be used for the purpose of the research as part of the Master of Education in Maynooth University and will be destroyed in accordance with University guidelines, after 10 years. The anonymised findings may be presented at conferences in future.

Contact details: Linda Champkin **Email:** xxx.com

Appendix T: My Original Action Research Cycle Plan Prior to Evolving Reflections

Timeline	Outline of Intervention
<p>Weeks 1, 2, 3:</p>	<p>Student-Led Learning Intervention Stage 1: Setting the Foundations</p> <p>Step 1:</p> <p>6. Time to complete pre-intervention questionnaire.</p> <p>Step 2:</p> <p>7. Initial group discussion and teacher input on the what, how and why of personalised learning</p> <p>8. Associated Task: Collaboratively create an anchor chart for personalised learning.</p> <p>Step 3: Create a Vision for Change</p> <p style="text-align: center;">Scaffolded Support <i>(I demonstrate / you try it)</i></p> <p>9. Focus on the Possibilities of Digital Tools to Access a Choice of Reading Texts.</p> <ul style="list-style-type: none"> - How to navigate the digital tools to choose a text based on <u>interest, needs, preferences, choice</u>. (Format: Teacher-led mini lesson, followed by student-led learning with teacher guidance). - Use of previously familiar apps to choose a text- Epic (online library), Oxford Owl and Once Upon a Picture websites. <p>10. Focus on the Possibilities of Digital Tools to Provide Flexibility in Recording Learning.</p> <ul style="list-style-type: none"> - How to develop proficiency in digital skills required to be enabled to record learning and to complete the learning goal, based on <u>needs, preferences, choice</u>. (Format: Teacher-led mini lesson, followed by student-led learning / exploration of tools with teacher guidance). - Use of previously used/familiar digital tools- Google Docs- voice typing, Jamboard- draw feature and Bookcreator- recording feature. Functions-

	creative commons image search, screenshot functionality.
Week 4	<p>Student-Led Learning Intervention Stage 2: Scaffolded Support <i>(I demonstrate / you try it)</i></p> <p><u>Overview of Lesson Structure:</u></p> <ol style="list-style-type: none"> 4. Direct Teaching Use of Building Bridges of Understanding programme. <ul style="list-style-type: none"> - Explicit modelling of ‘Making Connections’ skill led by teacher. 5. <u>Students decide on a digital tool</u> to create and complete the comprehension learning goal 6. Conclusion: Co-Led / Reflect on Learning - discussion circle. <p><i>Other:</i></p> <ul style="list-style-type: none"> - Critical Friend Group Discussion (Week of 24th January)
Week 5, 6, 7:	<p>Student-Led Learning Intervention Stage 3: Guided Support <i>(You try it / I watch and guide)</i></p> <p><u>Overview of Lesson Structure:</u></p> <ol style="list-style-type: none"> 1. <i>Introduction: Teacher-Led:</i> <ul style="list-style-type: none"> - Mini Lesson: Explicit modelling of ‘Making Connections’ skill led by teacher initially. 2. <i>Development: Student-Led: (Guided support)</i> <ul style="list-style-type: none"> - <u>Choose a text</u> on Epic / Oxford Owl / One Upon a Picture website according to <u>interest, skill, needs.</u> - <u>Decide on a format</u> to create and complete the comprehension learning goal (Bookcreator / Google docs / Jamboard / in copy). - Teacher feedback and scaffolding as required. 3. <i>Conclusion: Co-Led / Reflect on Learning</i>

<p>Week 8 , 9:</p>	<p>Personalised Learning Intervention Stage 4: Independent Practice</p> <p><i>(You do it alone / reflect).</i></p> <ol style="list-style-type: none"> 2. Students provided with a learning goal linked to ‘Making Connections’ skill. Independently choose digital tools to engage with a text and complete learning goal. Teacher guidance as necessary. 3. Student Digital Portfolio to demonstrate learning. <ul style="list-style-type: none"> - Students choose two completed tasks to add to their learning portfolio. Add reason for each choice using voice typing / typing / video record function / audio clip added to book. 4. Ongoing discussion circles as part of the intervention process. <p>Other:</p> <p><i>Critical Friend group discussion (Week 9)</i></p> <ul style="list-style-type: none"> - Discussion of and sharing of work samples and excerpts from teacher observations and reflective journal. Discuss recurring themes in the data and critical friend perspectives on the approach / perceived findings.
<p>Week 10:</p>	<p>Personalised Learning Intervention Stage 5: Reflecting on our Learning</p> <ol style="list-style-type: none"> 4. Share final selection of student selected work samples with the group. 5. Explanation of and time to complete post-intervention questionnaire. 6. Group discussion: <ul style="list-style-type: none"> - What did you learn about personalised learning? - How did we use our chromebooks to choose interesting, worthwhile content for our reading comprehension sessions? - How did we use technology as a tool to record, create and respond to our reading comprehension learning activities? - Does this type of activity help you to learn?