

Preparing for an Enterprising Future: A Multi-Case
Study of the Role of Enterprise in New Zealand
Schools

Sabrina Nagel

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School of Education

Faculty of Culture and Society

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Abstract

The integration of 'enterprise' or 'entrepreneurship' education into global education systems has gained significant popularity over the past decades. In the wake of the global pandemic, these educational concepts have been recognised as instrumental tools for driving economic recovery. However, despite their prominence, the precise distinctions between the two terms and the potential benefits they offer to the student body remain inadequately understood and underappreciated. To address this knowledge gap, this study adopted a critical realist ontology and a constructivist epistemology to investigate how enterprise is conceptualised and promoted in the context of a New Zealand school system.

A multi-site case study was conducted, involving interviews with teachers and principals from four distinct schools. Additionally, a student focus group provided student insights. Complementing these primary data sources, document reviews were utilised to supplement the research findings.

The adoption of a critical realist perspective offered a nuanced understanding of the complex interactions between various factors influencing enterprise education, while the constructivist epistemological stance facilitated an exploration of the cognitive processes and educational practices that shape students' entrepreneurial skills and mindset.

By exploring the practical implementation and perceptions of enterprise education in New Zealand schools, this study is a contribution to the existing knowledge base. The findings are anticipated to benefit educational policymakers, school administrators, and curriculum developers by providing evidence-based recommendations for enhancing the effectiveness of enterprise education initiatives in the New Zealand context and beyond.

Ultimately, this research represents an effort to advance the understanding of enterprise education's role in fostering economic resilience and innovation, empowering students to become dynamic contributors to their communities and economies.

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Attestation of Authorship

I hereby declare that this submission is my own work and that, to the best of my knowledge and belief, it contains no material previously published or written by another person (except where explicitly defined in the acknowledgements), nor material which to a substantial extent has been submitted for the award of any other degree or diploma of a university or other institution of higher learning.

Signature

Date

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Chapter 1: Introduction

Let's stop asking kids what they want to be when they grow up, let's start asking them what problems they want to solve and what do they need to learn in order to solve them (Roberts & Casap, 2018, On One Rainy Afternoon section).

Roberts and Casap's insightful words resonate with the shifting paradigms of education in the modern world. They echo a call for a transformation in the approach to preparing young minds for the future. Similarly, the World Economic Forum emphasises the transformative potential of entrepreneurial education:

Entrepreneurship education can be a societal change agent, a great enabler in all sectors. Not everyone needs to become an entrepreneur to benefit from entrepreneurship education, but all members of society need to be more entrepreneurial. (World Economic Forum, 2009, p. 7)

These compelling statements emphasise the significant role that entrepreneurial education can potentially play in shaping the individuals and societies of tomorrow, reflecting the strong views held by some in the field. This chapter serves as an introduction to the research, outlining its objectives and providing context on its origins. It briefly highlights the significance of the study, explains the methodology employed, and acknowledges the study's limitations.

Entrepreneurial Education Within a Global Context

The integration of 'enterprise' or 'entrepreneurship' education throughout various levels of global education systems has gained significant momentum in the past two decades (Aamir et al., 2019; Hytti & O'Gorman, 2004; Lackéus & Sävetun, 2020; Randma & Venesaar, 2016; The Quality Assurance Agency for Higher Education, 2018; World Economic Forum, 2009). This integration is part of a broader research agenda that is shaping education policies worldwide (Aamir et al.). Leading global organisations like the World Economic Forum (2020) and the World Bank (2019) recognise these skills as essential '21st-century skills' and advocate for increased emphasis on entrepreneurial education. The global Covid-19 pandemic has reinforced the idea that "an entrepreneurial approach to recovery is vital" (Hardie et al., 2020, p. 2). Governments are not only seeking assistance with economic recovery, but also

recognising the importance of entrepreneurial education in addressing political, environmental, cultural, and social challenges from a Deweyan perspective of democratic citizenship (Saraiva & Paiva, 2020).

Entrepreneurial Education Within a New Zealand Context

The New Zealand Curriculum, founded on a robust vision, values, and eight core principles, consists of five key competencies and eight learning areas (Ministry of Education, 2007). Notably, 'enterprise' is positioned at the front of *The New Zealand Curriculum* as part of its core principles, signifying its significant standing within the document (Lee et al., 2015). However, the ambiguity surrounding the usage of 'entrepreneurship' and 'enterprise', as mentioned earlier, is also reflected in *The New Zealand Curriculum*, in which these terms are not explicitly clarified. The document seems to lean towards a broader concept of 'being enterprising'. Nevertheless, supplementary materials endorsed by the Ministry of Education (MoE) (2020) which highlight examples of enterprise initiatives in schools, often relate to a narrower definition of enterprise, such as instances of 'Market Days'.

The inclusion of specific elements in a curriculum, as advocated by Plato, primarily centres around the educational purposes it serves. Plato, one of the early philosophers of education, emphasised that a curriculum should be designed to cultivate certain virtues, knowledge, and skills in individuals. This classical view of curriculum is rooted in the notion that education should primarily aim at the moral and intellectual development of students (Gamble, 2009). However, the development of a curriculum is not solely a matter of educational objectives. It is also influenced by broader socio-political interests and contexts. An illustrative example of this interplay between education and politics can be observed in the case of New Zealand.

In New Zealand, as in many other countries, the landscape of education underwent significant transformation in the 1980s. In this era, a series of neoliberal reforms became prominent across the nation (Benade, 2012). Neoliberalism, an economic and political ideology, prioritises minimal government interference in markets, deregulation, and privatisation. Entrepreneurial education, in this context, was seen as a way to equip students with the skills and mindset necessary for success in a market-oriented,

competitive economy. It was no longer solely about fostering character virtues or pursuing intellectual excellence, as Plato might have advocated. Instead, it aligned with the socio-political interests of the time, which prioritised economic development and the preparation of a workforce for a rapidly changing world.

So, while the classical view of curriculum, as championed by Plato, underscores the significance of education for individual and societal betterment, the evolving landscape of education also reveals how curriculum decisions can be influenced by the prevailing socio-political ideologies and economic imperatives of a given era. This complex interplay between educational objectives and external influences continues to shape curriculum development and reform in many countries around the world.

Researcher Positioning and Rationale for This Research

I have approached this research from my view as a 39-year-old pākehā¹, German-born mother of 11-year-old twin girls who has been working at the intersection of enterprise and education for the last fourteen years. Throughout my career, I have mainly developed and taught entrepreneurial programmes for young adults and adult learners. I also co-founded Ako Space, a primary school centred around play-based learning, and have worked in early childhood education. My interests span diverse fields, including neuroscience, alternative education, child development, health sciences, and business. I am often drawn to unconventional approaches, leading me to explore solutions and viewpoints that may not have been previously considered. This “location of self” (Mutch, 2005, p. 64) is an acknowledgement that objective observations do not exist which will be expanded on in the below section under critical realism. These experiences have greatly enriched my academic journey.

While research in enterprise and entrepreneurship education has grown significantly (Ratten & Usmanij, 2020), critical gaps persist. Existing literature predominantly resides in the field of business studies and leans towards empirical or positivist approaches (Aamir et al., 2019; Lee et al., 2015; Liñán & Fayolle, 2015). Having completed an undergraduate degree in Business Studies with a major in Entrepreneurship, I opted against the conventional

¹ Pākehā is a Māori-language term for New Zealanders primarily of European descent.

postgraduate research path within business. Instead, my interest led me to explore postgraduate research from a social sciences perspective. By capitalising on my proficiency in synthesising information across disciplinary boundaries and my diverse multi-disciplinary background, the objective was to contribute to the body of knowledge through a qualitative research study that connects the literature in both business and education.

Despite certain negative associations surrounding entrepreneurial education, particularly its economic connotations and ties to capitalism, I align with a growing body of organisations and scholars (O'Brien & Murray, 2015; World Economic Forum, 2009) who perceive entrepreneurial education as a potential force for good. It has the capacity to empower students to confront an uncertain future (Simon, 2017), engage in innovative problem-solving (Saraiva & Paiva, 2020), and address some of the pressing societal challenges we face (Jones & Iredale, 2010).

Through first-hand experience, I have witnessed the profoundly positive impact of imparting entrepreneurial skills. Beyond equipping students with practical entrepreneurial competencies to start businesses, it has instilled in them an enterprising mindset. This often resulted in heightened self-confidence, fuelled by their newfound ability to tackle complex issues, collaborate effectively with peers, and communicate persuasively. Witnessing this transformation has been immensely gratifying, it sparked my curiosity in this research topic.

The convergence of my passions, diverse experiences, and research interests has led me to embark on an exploration of the role of entrepreneurial education within *The New Zealand Curriculum*. My research intentionally addressed a gap in this research area by selecting four schools that actively incorporate enterprise education. Notably, three of these schools cater to younger students, providing a unique perspective as existing research predominantly centres around the experiences of older children at the high school level. With over a decade of experience in the enterprise space, my interest lies in exploring their perspectives on how they define enterprise, its personal significance, and how they encounter it within their school environment.

Research Aims and Questions

Educational research, according to Newby (2014), serves diverse purposes, including issue exploration, practice enhancement, and policy influence.

Through my research, I aim to achieve the first and last of these objectives. Several factors make this research particularly timely.

Firstly, a decade-old New Zealand study highlighted the urgent need for a common understanding of entrepreneurship (Cardow & Kirkley, 2011). Secondly, the Ministry of Education (2021) is currently undergoing a comprehensive 'curriculum refresh', offering an opportunity for my research to contribute to policy discussions. Lastly, I hope that my research findings will encourage educators, policymakers, and politicians to reconsider existing concerns and catalyse further investigations in this field (Newby, 2014).

The prominent placement of enterprise at the start of *The New Zealand Curriculum* (Lee et al., 2015), coupled with the enduring ambiguity surrounding entrepreneurship and enterprise definitions, emphasises that policy discourse encompasses both rhetoric and implementation. I firmly believe my research can enrich this area by shedding light on these multifaceted issues. Additionally, in the post-pandemic era, entrepreneurial education has gained recognition as a valuable tool for economic recovery. Given my profound interest in this domain, aligning my research with this broader research agenda ensures its contemporary relevance (Newby, 2014).

The investigation focused on understanding how the concept of enterprise was perceived within schools that adopted this approach, particularly among principals, teachers, and students. It fills a gap in existing research by concentrating on four intentionally selected schools, three of which cater for younger students. Existing research predominantly explores older high school students' experiences. Through this study, I aimed to uncover the definitions of enterprise as understood by participants, its personal significance, and how they experience it in their school context. To address this, the following research question was posed:

“How is enterprise conceptualised and promoted in a New Zealand school context?”

Together with the following sub questions:

- How do teachers and students experience enterprise in the context of schools that encourage enterprise?
- How is enterprise understood, valued, and promoted by teachers in schools that embrace enterprise?
- What can be learned from schools that practise the concept of enterprise?

Research Significance

This study had four primary research objectives. Firstly, it aimed to investigate how enterprise is understood and practised within New Zealand schools, focusing on insights from teachers, principals, and students. While broader student participation was desired, the study represents the experiences of stakeholders in participating schools. Employing a critical realist perspective, the research explored various factors, including enablers and obstacles to embracing enterprise in schools, as well as the outcomes.

Throughout the study, there is a case presented for the significance of embracing enterprise in a comprehensive sense within *The New Zealand Curriculum*. Its removal would represent a step backward. Ambiguity surrounding enterprise and the benefits of entrepreneurial education for young students hinders its potential positive impact on their future, regardless of career paths. Resolving definitional ambiguity is crucial to maximise the benefits of entrepreneurial education, with Lackeus' (2018) continuum framework being a potential solution.

The study also aimed to align my personal interests with a broader research agenda, given entrepreneurial education's recognition as a tool for post-pandemic economic recovery. Additionally, I hope to contribute to education policy development, stimulate reconsideration of existing concerns, and inspire further research by educators, policymakers, and politicians.

Lastly, recognising that much of the existing literature originates from the business sector, rather than the field of education, the study aimed to enrich the knowledge base by bridging these domains through qualitative research. The full impact of this study in achieving these objectives will emerge over time.

Research Paradigm and Methodology

In terms of ontology and epistemology, researchers often imply their stance rather than explicitly stating it, potentially inviting criticism from opponents of qualitative research. In this research, I have chosen to be explicit about my paradigm, adopting a critical realist view that recognises the existence of reality independently from the human mind (Levers, 2013). This choice aligns with my personal ontological stance, realism, and my epistemological stance, relativism, accommodating the constructivist epistemological stance I identify with as a researcher. It also resonates with my professional values of integrity, respect, and social justice and corresponds with my personal interest in identifying and understanding the underlying factors contributing to certain phenomena.

The critical realist paradigm acknowledges the social context of human interaction (Lee et al., 2015), making it a valid research methodology in the field of entrepreneurial education research. Furthermore, as it incorporates positivist and constructionist elements, it serves as a bridge between scientific and socio-cultural domains. This is particularly suitable for my research endeavour aimed at bridging the gap between extensive business research and limited education research in this domain. The critical realist paradigm also encourages the use of multiple research methods, aligning with my planned approach for this study (Van Burg et al., 2022).

To gain deeper insights into the meanings associated with enterprise by research participants, I adopted a multi-method approach within a case study methodology, as recommended by Yazan (2015). Merriam (1998) emphasised that a case study can encompass a group, programme, or community, provided clear boundaries are established. Newby (2014) identified three main purposes for employing a case study: description, explanation, and exploration. Given my goal of comprehending the conceptualisation of enterprise within the school context, particularly in a relatively new field, this case study is exploratory.

Data Analysis

I chose to analyse my data using reflexive thematic analysis (Braun and Clarke (2012)). Thematic analysis is a widely used qualitative data analysis method in various fields, including the social sciences, clinical practice, health research, and education. Reflexive thematic analysis, as defined by Braun and Clarke,

values the subjectivity of researchers. Reflexivity involves critically examining actions, methods, motivations, and their impact on research and recognising how personal perspectives are shaped by individual experiences and backgrounds. In reflexive thematic analysis, researchers can approach the method flexibly. I applied the six-step process suggested by Braun and Clarke. The initial phase involved getting acquainted with the dataset, followed by assigning concise code labels to data segments capturing specific meanings. These first two steps merged for me, as I listened to recorded reflections and read transcripts, highlighting patterns and insights.

I then used an inductive, data-driven approach to develop codes, aiming to uncover how participants experienced enterprise in school. Most of my codes were latent, going beyond surface semantics. Developing themes followed a similar approach, with themes representing broader, shared meanings. Mind maps aided in visually organising codes and child codes.

The fourth phase involved developing and reviewing themes using NVivo, including word frequency queries. This phase had an element of playfulness as I observed emerging patterns.

Before the fifth phase of refining and naming themes, I conducted a third data reading and finalised codes, child codes, and themes. The process was cyclical rather than linear, guided by Braun and Clarke's structure. Maintaining a reflexive journal and seeking supervisor feedback were valuable. As Braun and Clarke noted, the final stage, writing up, often starts earlier in the process and continues during thesis editing.

Thesis Organisation

The thesis has six chapters. The following outlines a summary of each chapter.

Chapter One has introduced the research and its aims and gives context on how it originated. It touches briefly on the significance of the study, the methodology used and its limitations.

Chapter Two is a literature review. It offers an overview of the academic landscape in the field of entrepreneurial education. Its primary objective is to contextualise the present research and identify potential avenues for future

studies. The chapter begins at a global level by examining the evolving definitions of enterprise and entrepreneurship education, encompassing historical perspectives. It then narrows the focus to New Zealand, exploring how enterprise is situated within *The New Zealand Curriculum* and the country's experiences in implementing Education for Enterprise (E4E) resources (Ministry of Education, 2020). Additionally, the chapter addresses the challenges hindering the widespread adoption of entrepreneurial education in schools and presents compelling reasons advocating for its broader implementation. Given the relevance to the current global landscape, it also investigates the potential role of entrepreneurial education in facilitating recovery from the global pandemic.

Chapter Three functions as an exploration of the research methodology and design, offering a thorough justification for their selection. The underlying reasons behind the chosen methodological orientation are examined, while candidly acknowledging its limitations. It also illuminates the process of data analysis and emphasizes the ethical considerations that guided the research. Additionally, the chapter provides contextual information about the schools that participated in the study, establishing a comprehensive foundation for understanding the research process. Moreover, the chapter covers the process of data analysis and highlights the ethical considerations that guided the research. Additionally, contextual information about the schools that participated in the study, providing a comprehensive foundation for understanding the research process is included.

Chapter Four outlines the primary findings obtained from the data collected through semi-structured interviews and a focus group. The analysis process involved thematic analysis, resulting in the identification of four main themes: enablers facilitating the integration of enterprise within schools, challenges associated with the adoption of enterprise education, enterprise within the context of '21st century' skills, and the outcomes of implementing enterprise education in schools. Ten subthemes emerged to provide a more nuanced understanding of these primary themes.

In Chapter Five, the implications of the research findings presented in Chapter Four are discussed. These implications are examined in the context of the

research questions and the existing literature. Within this chapter, the challenges that were encountered during the study are also addressed.

Chapter Six serves as the conclusion of the research study. It summarises how the research questions have been addressed, emphasises the significance of the study, highlights its limitations, and offers recommendations for further research.

Chapter 2: Literature Review

Introduction

This chapter is an exploration of the academic landscape in the field of enterprise and entrepreneurship education. The current research is contextualised within the wider academic discourse and promising avenues for future research are identified. This chapter begins with setting the context and background of this study, tracing the historical evolution of enterprise and entrepreneurship concepts and analysing changes in their definitions. The various entrepreneurial education definitions and the values and ideals associated with these are explored before the link to the broader purpose of education is discussed.

Pedagogies associated with entrepreneurial education and how these might influence the design of entrepreneurial education programmes are examined. Furthermore, the exploration moves into the ongoing debate surrounding the expansion of entrepreneurial education within schools, considering the broader implications and potential unintended consequences. Issues, such as how to measure the impact of entrepreneurial education programmes, the potential of entrepreneurial education in post-pandemic recovery and resilience-building, as well as the role of the teacher are covered.

As the chapter concludes, the focus shifts to the New Zealand context with a brief historical excursion. Discussion scrutinises how enterprise became part of *The New Zealand Curriculum*, tracing its evolution and practical implementation. The chapter also provides an overview of New Zealand's experience with E4E (Education for Enterprise) resources, shedding light on real-world applications.

Context and Background of This Study

While entrepreneurial education as a research field has a relatively brief history (Hägg & Kurczewska, 2020) and often lags behind practical applications (Ratten & Usmanij, 2020), the mounting emphasis on entrepreneurial education has sparked a burgeoning interest in research within this domain (Liguori et al., 2019). This heightened interest is further exemplified by the noteworthy fact that between 2015–2022, a total of nine literature reviews were conducted on the subject of entrepreneurial education.

The review for this research study commenced with a keyword search employing terms such as 'Entrepreneur*' OR 'Enterprise', AND 21st 'century learning' OR 'future focus' AND 'curricul*' OR 'syllabus'. The search was conducted across prominent databases including JSTOR, SCOPUS, ERIC, Emerald, and Ebsco, initially yielding over 245 results. Following an abstract scan, this was narrowed down to 47 sources, which were further refined to 26 journal articles forming the foundation of this review. The titles, abstracts, journal sources, and backgrounds of the authors were used to assess whether an article was of a business or education background. Notably, 20 out of the 26 articles published between 2015-2020 related to the field of business studies.

A subsequent search conducted approximately 15 months later utilising the same keywords across the same databases produced an expanded result of 274 findings. This was further refined to 76 articles and eventually down to 58 articles. Importantly, this time, there was a more balanced distribution, with 29 articles from a business perspective and 29 articles from an education perspective. Prior to 2020, most published research into enterprise seemed to originate from business studies literature (Lee et al., 2015), but the most recent search in 2023 suggested that, since 2020, there appears to have been an increase in the number of sources arising from Education Studies. The recent shift towards articles with an education focus provides a counterbalance to earlier business literature, which primarily adopted an empirical approach rooted in positivist methodologies. Aamir et al. (2019), in their review of 59 articles, found a prevalence of empirical studies supporting this trend. Similarly, the literature review by Liñán and Fayolle (2015) highlighted the predominance of positivist methodologies in the majority of research within this domain.

The increase in publications about entrepreneurial education is likely in response to two factors. Firstly, as illustrated above, there had been a gap in literature since most articles originating from a business perspective. Secondly, the pressure from organisations, such as The World Economic Forum (WEF), to embrace entrepreneurial education more widely within schools as a response to help economies recover from the global pandemic increased. In a report from 2019, the WEF announced that it is not enough to develop entrepreneurial talent; entrepreneurial education needs to nurture an entrepreneurial mindset and entrepreneurs should be encouraged to solve pressing, global issues

(World Economic Forum, 2019). This literature review exposes a disparity between educational objectives, which aim to instil an entrepreneurial mindset in students, and the implementation of entrepreneurial education, where programmes and activities primarily focus on teaching students how to start a business.

Defining Entrepreneurial Education

To define entrepreneurial education, one must first categorise the terms 'entrepreneurship' and 'enterprise.' However, significant confusion in relation to these terms exists (Bridge & Matlay, 2015; Jones et al., 2012; Lackéus, 2018b; Lee et al., 2015; Liguori et al., 2019; O'Brien & Murray, 2015). Lee et al. (2015) mentioned that, although people think they understand the term, 'enterprise', they are challenged to clearly articulate it. Thirty years ago, Gibb (1993) found that the term enterprise was used more in the United Kingdom and Ireland and the term entrepreneurship in the United States of America and Canada. Both terms are often used interchangeably and the "possible meanings of entrepreneurship can be too varied to be useful" (Simon, 2017, p. 2). There is no consensus around the definitions (Arruti & Paños-Castro, 2020; Galvão et al., 2020). Hence, Simon (2017) stated that any attempt to try and assign different meanings to the words enterprise and entrepreneurship when they have been used interchangeably for so long, would not be successful due to the uncertainty of what meaning these words had in older documents. As a solution to this issue, he suggested the words be altogether removed from the education context. In contrast, Hardie et al. (2020) proposed the coexistence of these terms within categories of 'for', 'about', and 'through', which will be elaborated upon below. How the term 'enterprise' has been defined for this research study will also be explained.

Despite the definitional confusion, many researchers (Bridge & Matlay, 2015; Hardie et al., 2020; Lackéus & Sävetun, 2020; Liguori et al., 2019; Randma & Venesaar, 2016; Simon, 2017) have concurred that both a narrow and broad definition of enterprise exists. On one hand, the narrow definition has a business and start up focus that can be traced back to Schumpeter (1934), McClelland (1961), and more recently to Gartner (1988) who stated that "entrepreneurship is the creation of new organizations" (Gartner, 1988, p. 26). On the other hand, the broad definition of enterprise is often associated with

“personal qualities and dispositional skills” (Lee et al., 2015, p. 793). Thus, it encompasses the development of competencies such as “creativity, self-efficacy, innovativeness, initiative-taking, proactiveness, uncertainty tolerance, and perseverance” (p. 35) and is relevant to all people from all walks of life (Lackéus & Sävetun, 2020).

Arruti and Paños-Castro (2020) define the two terms in a slightly different way and distinguish between ‘entrepreneurship for life’ and ‘entrepreneurship for venture creation’. However, both descriptions are still linked to the original wide and narrow definitions described above. Several researchers (Lackéus & Sävetun, 2020; Liguori et al., 2019; Randma & Venesaar, 2016; Simon, 2017) agree that the term enterprise is often used in the wider sense and the term entrepreneurship in the narrow sense. Furthermore, Simon (2017), concluded that the broader definition has been more widely adopted in recent times. For this research, the broader definition for enterprise was used.

Definitional challenges also encompass word pairings involving the term ‘enterprise’, such as ‘enterprise education.’ As a result, for the purpose of this research, this term must also be defined. This binary and overly simplistic categorisation of wide versus narrow, as elaborated above, has dominated the practical domain of enterprise education for decades. In 1999, Gibb outlined three distinct categories of entrepreneurial education (EE) programmes, each with distinct objectives, target audiences, and operational strategies. The initial type of programme facilitates participants’ understanding of enterprise. The second type aims to nurture participants’ entrepreneurial mindset, while the third category seeks to empower participants to embark on entrepreneurial endeavours (Jones et al., 2012).

When examining this classification, Moberg et al. (2015) differentiated between the ‘instrumental approach’ and the ‘entrepreneurial method approach’. Within the instrumental approach, education draws from enterprise theories, and students maintain a limited degree of control over their learning trajectory. Conversely, the entrepreneurial method approach hinges on leveraging students’ personal experiences and interests, affording them a higher level of autonomy in shaping their learning journey. This form of education frequently emphasises non-cognitive outcomes such as “the entrepreneurial process,

mindset, and the undertaking of entrepreneurial activities” (Baggen et al., 2021, p. 7) and aligns with the wide definition of entrepreneurial education mentioned above.

More recently, Langston (2020) offered a complementary way of defining entrepreneurial education to Gibb and Moberg. He categorised four main teaching and learning approaches: *about*, *for*, *through* and *embedded* enterprise. *About* refers to the traditional way of learning the ‘what’ and ‘how’ of enterprise, usually through theories; learning *for* refers to starting a business; whereas learning *through* means developing key competencies through experiencing real life ventures (Hardie et al., 2020; Simon, 2017). The last approach combines teaching *about* and *through* and relates to embedding entrepreneurial education throughout the core curriculum, which can occur in any of the previous types. In order to develop students’ enterprising competencies, this approach teaches entrepreneurial values within a generic subject (Langston, 2020). Thus, Seikkula-Leino (2018) concluded that entrepreneurial education can be defined as learning content as well as a learning method, with a number of academics arguing that the learning process is as important as, if not more important, than the result (Baggen et al., 2021; Zhang, 2020).

Another recent perspective offered by Lackéus (2018a) presents a nuanced framework drawing upon Morris's work (1998). Morris identified 18 distinct terms associated with entrepreneurship and enterprise. The variety of these terms suggested that a simple dichotomy of broad versus narrow definitions falls short of capturing the complexity of these terms. As a result, Lackéus summarised seven definitional perspectives into a progression framework, and categorised entrepreneurial education into five different types. His model evolves from a type that is easy to implement, but has low impact and complexity, to a type that is very complex and difficult to implement but has a very high impact.

The simplest form of entrepreneurial education is the traditional form which encompasses learning about the theory of enterprise in a lecture-type format. It is very easy to implement but not very engaging and, thus, the least impactful type of entrepreneurial education. The second type, creation-based entrepreneurial education, incorporates the creation of artefacts such as writing

a business plan or pitching an idea. The third type, value creation-based entrepreneurial education, involves creating value for someone other than oneself. An example would be students working with a real-life company on a project or doing an internship. The fourth type, venture creation-based entrepreneurial education describes activities in which students start and run their own company as part of the school curriculum. In New Zealand for instance, through programmes such as the Young Enterprise Scheme (YES).

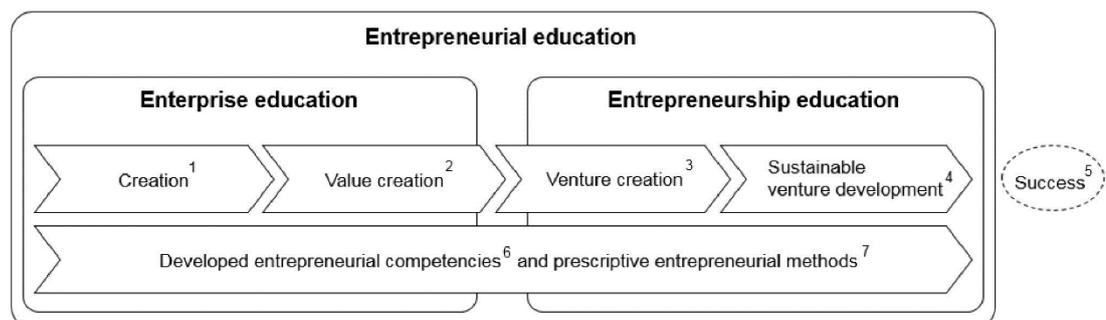
The most impactful and difficult type of entrepreneurial education to implement is that of sustainable venture-based entrepreneurial education. Compared to education based on venture creation, this approach necessitates that the businesses created persist beyond the conclusion of the educational programme. Lackéus settled on 'entrepreneurial education' as a "catch-all term for all approaches to infusing entrepreneurship into education" (Lackéus & Sävetun, 2020, p. 35). This research will adopt Lackéus' definition of entrepreneurial education on a continuum depicted below.

Values and Ideals Associated With Entrepreneurial Education

The debate around defining entrepreneurial education extends beyond linguistic considerations, involving the core values and ideals that shape education in this domain. This debate is reminiscent of a broader philosophical and political discussion: the tension between liberal and libertarian ideologies (Jones & Iredale, 2010). In the realm of education, 'liberal' typically refers to the principles of liberal education, which emphasise personal freedom and individual autonomy (Jones & Iredale, 2010). Liberal education seeks to empower

Figure 2.1

Lackéus's Progression Framework for Entrepreneurial Education



Note. Source: Lackéus, 2018, p. 9

individuals with knowledge, skills, and critical thinking abilities, all of which are seen as essential for personal growth and societal advancement. The idea is that education should foster personal liberty and freedom by providing individuals with the tools to make informed decisions and engage thoughtfully in society.

Within the context of entrepreneurial education, this liberal perspective suggests that education should equip students with a broad set of skills and knowledge, emphasising personal development and the ability to adapt and innovate in various contexts. However, there is a concern among some researchers that the strong emphasis on individual freedom in entrepreneurial education might inadvertently promote unethical behaviour (Bandera et al., 2020). This concern arises from the potential for negative outcomes to emerge from the entrepreneurial process itself, even when participants have good intentions. Therefore, it is crucial to harness entrepreneurial education as a force for good, in alignment with Lackéus' definition (2018a), focused on creating value for others.

On the other hand, 'libertarian' values also place a strong emphasis on liberty, but with a particular focus on individual rights (Jones & Iredale, 2010). Libertarians advocate for minimal government intervention and maximal individual freedom. In the context of entrepreneurial education, a libertarian perspective might prioritise the freedom of individuals to pursue self-employment, business ventures, and economic self-sufficiency. This viewpoint could be associated with the narrower definition of entrepreneurial education, which often concentrates on equipping individuals with the skills and knowledge needed to start and run businesses. The ongoing debate over these definitions reflects a larger societal conversation about the role of education.

The Purpose of Education

The debate raises questions about the purpose of education—is it primarily to nurture personal development and critical thinking, as the liberal perspective suggests? Or is it to emphasise individual rights and economic self-sufficiency, as the libertarian viewpoint may argue?

In recent times, there has been growing recognition that entrepreneurial education should encompass a broader spectrum of activities, including social entrepreneurship and community engagement. According to O'Brien and Murray (2015), many even consider entrepreneurial education to be a crucial element in reshaping the purpose of education, which will be considered in the discussion chapter. This definitional expansion aligns more with the liberal view of education, as it seeks to empower individuals not only for economic success, but also for active participation in addressing societal challenges. Therefore, the inclusion of the term 'social enterprise' within the broader definition of entrepreneurial education reflects an effort to reconcile these philosophical tensions. It acknowledges that education should prepare individuals for a wide range of endeavours, including those that aim to create positive social impact.

Lackéus (2018b) has been a significant contributor to addressing definitional issues regarding entrepreneurial education. He first proposed a definition which encompasses developing "more traditional competencies through giving students opportunities to create value for others" (p. 285). He called it 'Enterprise Education 2.0' and suggested that embracing societal benefits as part of the definition could help set enterprise education free from the definitional confusion. Furthermore, Bell (2021) contended that grounding entrepreneurial education in a humanistic philosophy can facilitate this shift away from the neoliberal paradigm. Such an approach can broaden access to entrepreneurial education, welcoming learners from diverse disciplines beyond the business sector. This shift enables them to pursue an entrepreneurial path that extends beyond the sole emphasis on profit maximisation. This broader perspective may help mitigate some of the negative connotations and potential limitations associated with the narrower definition; ultimately fostering a more inclusive and holistic approach to entrepreneurial education. Additionally, this definition could not only counteract the definitional issues, but help clarify which pedagogical approaches to use.

Pedagogies Related to Entrepreneurial Education

Entrepreneurial education requires a distinct pedagogical approach. With its focus on idea generation and creativity, entrepreneurial education is increasingly linked with the principles of 'progressive education' (Lackéus, 2018b), and many researchers call for constructivist pedagogies (Randma &

Venesaar, 2016; Van Den Berg, 2019), such as 'project-based' or 'real-world' learning. Given that learning encompasses both active and passive elements, there is a need for programme design to synthesise both theory and experience (Hägg & Kurczewska, 2020).

The shift from a teaching-centric to a learning-centric orientation, as advocated by Baggen et al. (2021), encourages students to take ownership of their learning journey and pursue personal goals. Ramsgaard et al. (2021) also align with this view, advocating for a student-centric approach in entrepreneurial education, emphasising the empowerment of students to apply enterprising skills to their unique contexts, fostering their entrepreneurial activities.

O'Brien and Murray (2015) proposed two transformative pedagogies, 'project-focused real-world learning' and 'flipped learning', to cultivate an entrepreneurial mindset in students. The former encourages system thinking, linking personal well-being to that of others and the environment, aiming for students to recognise their role as change-makers in interconnected systems. O'Brien and Murray (2015) emphasised the need for learning experiences that nurture students' agency, enabling them to take responsibility for their learning and contribute their unique perspectives to the world, positioning them as crucial contributors to the transformation of education.

The connection to concepts like project-based and self-directed learning, and authentic problem-solving, rooted in educational philosophers like Dewey and Rousseau, is, however, met with criticism. Critics argue that this association might amount to a rebranding of progressive education, reiterating the need for a clear definition of entrepreneurial education, as mentioned earlier (Hägg, 2016; Lackéus, 2018b). The current variety of existing programmes and the "absence of a consensus on methods and pedagogical techniques" (Galvão et al., 2020, p. 596) call for further study in this area (Gangi, 2017). As Donaldson et al. (2021) noted, researchers are actively seeking to carve out a distinct niche for entrepreneurial education within the broader landscape of learning paradigms, navigating its position between traditional and progressive approaches. The uncertainties around the defining and positioning of entrepreneurial education also affects the design of programmes in this space.

Designing Entrepreneurial Education Programmes

Designing effective entrepreneurial education programmes requires a comprehensive understanding of pedagogical principles and learning theories. Entrepreneurial education is deeply connected to theories like action learning, experiential learning, and problem-based learning, emphasising the pivotal role of experience in the learning process (Jones & Iredale, 2010). Huber et al. (2014) discovered a positive impact on noncognitive entrepreneurial skills in a primary school programme, while Baggen et al. (2021) asserted that a value-based entrepreneurial education programme cultivates a mindset to address contemporary societal challenges. Rodriguez and Lieber (2020) found a positive relationship between entrepreneurial programmes at high schools and gains in non-cognitive skills like communication and collaboration.

However, Zhao (2012, as cited in O'Brien & Murray, 2015) questioned whether an entrepreneurial mindset can truly be fostered in a traditional school environment. Furthermore, Huber et al (2014) stated that improving non-cognitive skills is not only relevant to the entrepreneurial context and, thus, they questioned why we teach entrepreneurial education at all. This issue has also been raised by Benade (2012) who points out that various attributes that are referred to as 'enterprising' in the E4E documents are competencies that can be ascribed to 'non-enterprising' students, too. Furthermore, examining teaching methods in entrepreneurial education initiatives, Hytti and O'Gorman (2004) found a historical focus on new-venture creation.

However, recent insights, such as Lackeus (2020) study, emphasise the effectiveness of programmes prioritising value creation. This shift in focus has pronounced effects on students' competence development and motivation, providing valuable guidance for educators in the design of entrepreneurial education programmes.

Drawing on the earlier delineated definitions by Langston (2020), the most impactful approach involves initiating teaching 'through' entrepreneurship at the primary school level. Subsequently, the progression moves towards teaching 'for' entrepreneurship, and only those students expressing a specific interest in launching their own business will be introduced to teaching 'about' entrepreneurship (Baggen et al., 2021).

Seikkula-Leino (2018) raised the scarcity of studies focusing on the primary school level, and this research aims to address this existing research gap. It is also important to note that this does not mean everything schools have been doing needs to be disregarded, but current programmes could become more effective by simply altering a few things, such as letting students apply their understanding and abilities by creating value for others (Lackéus, 2018b).

Amidst the ambiguity in defining the term, discussions also revolve around whether entrepreneurial education should be a distinct subject or integrated across the curriculum. Over a decade ago, Jones and Iredale (2010) advocated for a cross-curricular approach, a notion that has regained attention in recent research, as cited by Seikkula-Leino (2018). Before designing entrepreneurial education programmes, it must be established whether entrepreneurial education should be more widely embraced by critically examining positive and negative aspects of entrepreneurial education.

Exploring the Debate: Should Entrepreneurial Education be Expanded in Schools?

As mentioned previously, the terms 'entrepreneurship' and 'enterprise' carry negative connotations in educational contexts, primarily due to their associations with capitalism and business, as emphasised by Simon (2017). Some teachers even connect these terms to selfishness (Lackéus, 2018b; Langston, 2020). As a result of this perception, having teachers embrace entrepreneurial education within an education setting can be problematic, as highlighted by Benade (2012) and Lackéus (2018b).

Benade (2012) argued that the economic nature of entrepreneurship stands in contrast to a teacher's ethical professionalism which "is based on altruistic commitment to the other, duty and service" (p. 212). Taking on a more macro perspective, the question arises whether teaching entrepreneurial education without adding a sustainability perspective would lead to feeding excess consumerism which harms the environment and exhausts scarce resources (O'Brien & Murray, 2015).

Additionally, Jones et al. (2012) queried whether entrepreneurial education will be a 'panacea' by pondering four different, provocative future scenarios and

considering issues related to each. This view is aligned with Langston (2020) who pointed out that an unrealistic expectation might exist regarding the role that entrepreneurial education can play.

Contrarily, Saraiva and Paiva (2020) stated that social and environmental challenges in the near future will result in changes to entrepreneurial education that will involve a vital link to technology and innovation. The negative connotations and complexities surrounding capitalism can pose challenges in integrating entrepreneurial education into schools, and this is further compounded by the next issue, which relates to the 'dark side of entrepreneurship.'

Unintended Consequences of Entrepreneurial Education

The 'dark side of entrepreneurship' refers to potential unintended consequences related to entrepreneurial education which is currently an under-researched area (Bandera et al., 2020; Ratten & Usmanij, 2020). One of these inadvertent consequences relates to the romantic image of the entrepreneurial hero that has been depicted by society and the media and the potential effect on students (Lackéus, 2018b). The hero which is "often a western middle-class man, motivated by self-oriented profits or liberty" (p. 273) not only encourages the liberal and capitalistic values discussed above, but can also lead to heightened inequalities in society regarding gender, race, and class. Other harmful effects of entrepreneurial education 'gone wrong' can include not being able to cope with failure, anxiety, or rejection (Donaldson et al., 2021).

Another issue, raised by Brentnall (2020), concerns the competitive nature of many entrepreneurial activities and programmes, for example, business idea competitions, and their unintended consequences. She argued that students might be too focused on outcomes rather than the learning. This is problematic since entrepreneurial education is framed around skills development and motivation. She also raised a related issue, that entrepreneurial education activities are undefined.

Bandera et al. (2020) mentioned that our understanding of the benefits of entrepreneurial education have outweighed our understanding of its drawbacks, and further research is needed. Aside from negative connotations and unintended consequences of entrepreneurial education, researchers have also

questioned the effectiveness and impact of entrepreneurial education which will be explored next.

Evaluating the Impact of Entrepreneurial Education

Even though education is discussed widely within the entrepreneurship and enterprise literature, there have been very few impact studies to demonstrate the effects of entrepreneurial activity on society (Lackéus, 2018b; Saraiva & Paiva, 2020). Lackéus and Sävetun (2020) argued that this might be due to neither term being defined properly. Furthermore, most of the few studies that do exist, are focused on measuring business, or start up metrics in some way. This is problematic as it reduces the purpose of entrepreneurial education to its very narrow definition related to the growth of the economy through creating organisations, as opposed to the broader definition of creating value for others (Lackéus, 2018b), which can be of economic, cultural, ecological or social origin (Baggen et al., 2021). Hägg and Kurczewska (2020) urged that merely advocating for the universal adoption of entrepreneurial education is insufficient; there must be substantial justifications that validate its inclusion. Additionally, caution is expressed against advocating for entrepreneurial education without anchoring it in philosophical or conceptual foundations.

In his research, Lackéus (2018b) investigated the impact of implementing teaching practices aimed at enhancing student learning through the facilitation of value creation for others. He found that students not only developed their entrepreneurial competencies, but they were also more engaged and, thus benefited from deeper learning of subject matter knowledge and skills. He recommended that further studies of this kind could prove the superior impact of entrepreneurial education and prevent entrepreneurial education from becoming irrelevant (Lackéus, 2018b).

Huber et al. (2014) proposed more research around the effectiveness of various programmes and other researchers (Mohamed & Sheikh Ali, 2021; Ratten & Usmanij, 2020) have reiterated this by pointing out that learning methods and their influence on entrepreneurial intention have only been poorly explored. Jones et al. (2014) emphasised the importance of providing teachers with the appropriate pedagogical tools as many educators do not have the experience or confidence to develop entrepreneurial programmes (Hardie et al., 2020). The

suggestion by Ratten and Usmanij (2020) to apply a more 'anthropocosmic' view when teaching entrepreneurial education, one that considers all the connections and relationships an individual has with a community, could be helpful here.

The Importance of Entrepreneurial Education in a Post-Covid Era

Despite the above-mentioned issues regarding entrepreneurial education, countries around the world have been introducing entrepreneurial education into their education systems (Aamir et al., 2019; Hytti & O'Gorman, 2004; Lackéus & Sävetun, 2020; Randma & Venesaar, 2016). Organisations such as the Organisation for Economic Co-operation and Development (OECD) and the United Nations (UN) strongly believe that entrepreneurial education is a vital tool for "public policies to achieve certain social, environmental, economic and even cultural objectives" (Saraiva & Paiva, 2020, p. 2). This significantly influences education policies on a global scale (Aamir et al., 2019).

Organisations such as the OECD or UN play a pivotal role in the modern economy. As Saraiva and Paiva (2020) explained, they wield substantial influence in promoting concepts like entrepreneurial education. The influence such organisations have also stresses a long-standing tradition in political science that assigns significant importance to formal political organisations.

Not only organisations such as those mentioned above, but a growing group of researchers also allude to the potential of entrepreneurial education. Prior to the pandemic, the view that traditional forms of education are not fit for the 21st century, as mentioned by Bull and Gilbert (2012), was contested. But in a post COVID time, "an entrepreneurial approach to recovery is recognised as vital" (Hardie et al., 2020, p. 2) to address rapidly evolving challenges due to economic disruption and to help address issues in political, environmental, cultural, and social facets (Saraiva & Paiva, 2020). There is now increasing acceptance that national education systems need to be examined, reimaged, or even reset (Langston, 2020). Governments value entrepreneurial education not just for economic recovery, but also for fostering a sense of responsible citizenship (Jones et al., 2014).

According to Langston (2020), educators appear to share deeply held values about the positive potential of entrepreneurial education for their students.

Simon (2017) stated that entrepreneurial education can aid in facing the uncertainty of the future., Others (Saraiva & Paiva, 2020) believe it engages students in innovative problem solving, especially in relation to some of the social issues that are arising (Jones & Iredale, 2010). Tican (2019) described enterprise as a core competency which aids students' personal development, encouraging active citizenship and social participation, as well as increasing their employability. People need to be entrepreneurial to overcome challenges and thrive through constant change (Zhang, 2020).

At the core of nurturing an entrepreneurial mindset lies the capacity to navigate the challenges that life presents (Bacigalupo et al., 2016; Blenker et al., 2011). Bolstad et al. (2009) even went so far as to call it a potential “collective social phenomenon that brings about civic engagement, ecological sustainability and social transformation” (p. 12). Thus, some sources reviewed accept that an entrepreneurial mindset is needed to thrive and solve the complex issues in society (World Economic Forum, 2019; Zhang, 2020), with Chaker and Jarraya (2021) calling entrepreneurship a life skill for the 21st century.

O'Brien and Murray (2015) pointed out that discussions on teaching enterprise and entrepreneurship often overlook the connection with sustainability, despite the pressing need for a new economic growth engine that addresses social and environmental challenges through innovation. It is noteworthy that the correlation between entrepreneurship and sustainable development, as emphasised by Alex (2017), is gaining strength. Scholars like Saraiva and Paiva (2020) suggested that teaching enterprise can contribute positively to the United Nations Sustainable Development Goals. Langston (2020) underlined that educators have expressed concerns about the imperative need for socially responsible entrepreneurial education, with many recognising a personal responsibility to actively promote this approach in their professional practice. O'Brien and Murray (2015) shared a hopeful perspective, suggesting that by understanding the interconnectedness of their well-being with that of others and the planet, students may be inspired to employ an entrepreneurial mindset to create a positive impact on the world. To repeat an earlier quote, the WEF(2009) framed it as follows:

Entrepreneurship education can be a societal change agent, a great enabler in all sectors. Not everyone needs to become an

entrepreneur to benefit from entrepreneurship education, but all members of society need to be more entrepreneurial (p. 7).

The argument for entrepreneurial education is further strengthened by recognising the significance of entrepreneurial employees, often referred to as 'intrapreneurs,' who play a crucial role within organisations (Lackéus & Sävetun, 2020; Langston, 2020). A recent report by the European Commission, explains in detail the value and importance entrepreneurial employees have within the public and private sectors (Lackéus et al., 2020).

Some authors (Arruti & Paños-Castro, 2020; Baggen et al., 2021; Lackéus & Sävetun, 2020; Liguori et al., 2019) even go so far as to suggest that entrepreneurial education needs to start at a younger age and that more should be done at primary school level. The findings by Moberg et al. (2015) align with Lackéus' notion (Lackéus, 2015) that comprehensive entrepreneurial education should commence at a young age. This approach, as recognised in Scotland (Jones et al., 2014) and various other nations, stresses the advantages of instilling enterprising qualities in young individuals during their most receptive years. In a recently published document, the Scottish Government has pledged to establish a dynamic talent pipeline for individuals under the age of 16 and to draw entrepreneurial students from across the globe (Tuffee & Little, 2023).

Furthermore, the European Union (EU) acknowledged the importance of the wide approach to enterprise in 2006, when it presented 'a sense of initiative and entrepreneurship' as one of the key competencies needed by all EU citizens (Bacigalupo et al., 2016). This has been further reiterated by a more recent report by the European Commission (2019) titled *Key Competences of Lifelong Learning* which states that: "Innovation and entrepreneurship should be encouraged and promoted if we want Europe to compete in the global race" (p. 3). Since entrepreneurial education is now being referred to as a key competency, the role of New Zealand schools and teachers has to be drastically remodelled to empower them to educate for the 21st century (Benade, 2012).

The Role of the Teacher

As highlighted earlier, there are a few issues that make implementing entrepreneurial education in schools difficult. One perspective centres around the educators themselves. As the demand for increased entrepreneurial

education grows, the significance of educators in this landscape cannot be overstated. Furthermore, as O'Brien and Murray (2015) have stated, as part of the comprehensive educational reform happening around the world, there is a need to redefine the role of teachers, enabling them to act as facilitators of learning and change agents necessary for the flourishing of education.

A big barrier to teaching entrepreneurial education more widely and successfully is teachers' attitudes (Seikkula-Leino, 2018). Langston (2020) researched the experiences of entrepreneurial educators and what role they might play in enabling economies to recover from COVID-19. Her research identified that teaching entrepreneurial education attracts entrepreneurial and creative people with a "high need for uniqueness and action orientation" (p. 22), who are willing to challenge conventional ways across the education system. Keyhani and Kim (2020) identified that entrepreneurial educators are more concerned about making an impact than about material gains.

Exploring the interplay between the internal motivators that prompt teachers to introduce entrepreneurial education programmes and their potential influence on teaching styles is a captivating avenue for investigation. Notably, Moberg et al. (2015) uncovered a significant correlation between a teacher's teaching style and the overall effectiveness of entrepreneurial education in positively impacting students. In order to teach entrepreneurship or enterprise effectively, teachers require confidence (Benade, 2012; Hardie et al., 2020; Thomassen et al., 2019) as well as practical experience and knowledge in this area (Benade, 2012; Hardie et al., 2020; Seikkula-Leino, 2018), which most teachers do not possess. Zhang (2020) goes a step further, arguing that teachers need to be entrepreneurial to teach entrepreneurship and according to Tican (2019), teachers need to possess the 'entrepreneurial spirit' in order to be able to teach effectively.

Thus, teacher education plays a critical role in providing opportunities via rich contexts for teachers to explore various pedagogical techniques. As underlined in his literature review, Seikkula-Leino (2018) pointed out that it is widely known that many countries do not cover entrepreneurial education appropriately in their teacher education programmes, or it is missing completely. He further

argued that entrepreneurial education should be part of teacher education, aligning with earlier studies in this area (Akyürek & Şahin, 2013).

The role of the teacher within entrepreneurial education also raises a question of whether educators must possess practical enterprise experience to acquire the essential comprehension needed for teaching it. Benade (2012) argued it might be expected that teachers of entrepreneurship or enterprise have appropriate practical experience in this area, in order to teach these areas effectively, but many teachers do not possess this experience. Langston's (2020) research revealed that prior entrepreneurial experience, even though not necessary, was viewed as beneficial for gaining a deeper understanding of the practicalities. For some educators, it enhanced their credibility, signifying first-hand knowledge rather than mere theoretical expertise.

The role teachers can play in embracing entrepreneurial education is also dependent on the environment within which teachers operate. Research in New Zealand and the United Kingdom (Bolstad et al., 2009; Lee et al., 2015) has demonstrated that entrepreneurial education is difficult to implement successfully without the full support of the senior management team at a school. This aspect has been extensively investigated in the interpretive case study conducted by Lee et al. (2015), which explores senior management's role in realising a successful enterprise programme at a prominent secondary school in New Zealand. It also aligns with a recent study by Langston (2020) of university environments which found the entrepreneurial education agenda is often at the whim of senior management and can go "in and out of fashion" (p. 320), with five out of ten educators having experienced active blocking by senior leaders.

Given the low regard for entrepreneurial education as a discipline compared to other fields, educators frequently encounter disinterest or even resistance from both colleagues and students (Langston, 2020). Thus, educators rely on their wider network of others working in this area for support. The experience of rejection in turn builds resilience which is a trait often identified within educators in the field, as highlighted by existing research (Langston, 2020). Being able to role model entrepreneurial traits has been seen as having a positive effect on students. In order to respond to the increasing demand for more entrepreneurial

education, Langston (2020) stated that it is important to take a cautious and collaborative approach when implementing entrepreneurial education, rather than treating it as a “fashionable quick fix” (p. 331). She concluded that entrepreneurial educators can play a vital role in shaping the future of entrepreneurial education—and more widely, education systems—by supporting other colleagues to navigate through uncertainty and to reimagine entrepreneurial education programmes (Langston, 2020). To successfully implement entrepreneurial education programmes, educators need to be aware of the accidental effects of entrepreneurial education.

Entrepreneurial Education Within the New Zealand Context

Like many other countries, New Zealand’s education system has experienced various changes over the past 20 years (Lee et al., 2015). *The New Zealand Curriculum* is the official national curriculum guiding education in New Zealand. It outlines the government's expectations for student learning and serves as a guide for teachers, schools, and the broader education system. Notably, *The New Zealand Curriculum* reflects New Zealand's rich cultural diversity and is intentionally crafted to be inclusive and adaptable, catering to the diverse needs of individual students and communities (Ministry of Education, 2007). The development of *The New Zealand Curriculum* was significantly influenced by a nuanced interplay of historical, political, and economic factors, making historical exploration an imperative.

History of Education in New Zealand

New Zealand's educational roots trace back to the influence of British models, particularly during the colonial era. The critical turning point arrived with the enactment of the New Zealand Education Act of 1877, which established the foundational principles of a free, compulsory, and secular education system (Benade, 2012). In its formative years, New Zealand's educational focus primarily revolved around core subjects like reading, writing, and arithmetic, mirroring the prevailing educational priorities of the time.

Following the Great Depression, New Zealand's commitment to social welfare extended to the education sector under the leadership of Fraser and Beeby (Simon, 2000). Their vision accentuated the importance of equal access to free education, aligning socio-political ideals with educational objectives. However,

the early 1980s saw global economic changes prompting Western economies, including New Zealand, to reconsider their approach to education. The need to ready students for the workforce, while curbing government spending on education, resulted in the adoption of neoliberal solutions. Consequently, educational institutions underwent a transformation, shifting from public good entities to quasi-businesses.

The pivotal “Tomorrow's Schools” reform, implemented in the late 1980s and early 1990s, aimed to decentralise education administration (Benade, 2012). It empowered individual schools with more autonomy through the creation of school boards of trustees, increased parental and community involvement, and created a competitive model in which schools vied for students. While this reform empowered schools to make local decisions, it also drew criticism for potentially exacerbating educational disparities and adding administrative burdens to school boards and leaders (Wylie, 2009). Ongoing debates and modifications have sought to strike a balance between autonomy and central oversight in the education system.

The idea of a unified national curriculum framework gradually took shape in the latter part of the 20th century. Crucial initiatives and reports, such as *Tomorrow's Schools* (Department of Education, 1988), the briefing to the Labour Party leader, the Treasury briefing, and the Picot Report (Benade, 2012), laid the groundwork for a significant shift in New Zealand's education landscape. This transformation culminated in the release of *The New Zealand Curriculum* framework in 1993, signifying a shift from a content-centred approach to one centred on educational outcomes. The government aimed to ensure that its investments in education aligned with this new direction and proved to be effective in meeting the evolving needs of the society and economy.

The New Zealand Curriculum

The New Zealand Curriculum, in its modern form, was officially introduced in 2007 (Ministry of Education, 2007). The curriculum emerged after extensive consultations and was founded on the eight educational principles of ‘High expectations’, ‘Treaty of Waitangi²’, ‘Cultural diversity’, ‘Inclusion’, ‘Learning to

² The Treaty of Waitangi is New Zealand's founding document

learn', 'Community engagement', 'Coherence', and 'Future focus'. Notably, it acknowledged the significance of key competencies, values, and principles extending beyond traditional academic subjects. Running in parallel is *Te Marautanga o Aotearoa* (Ministry of Education, 2017), the curriculum specifically tailored for Māori-medium education. This curriculum aligns with the cultural and educational requirements of Māori students and communities, ensuring their unique needs are met.

Key features that characterise *The New Zealand Curriculum* encompass a holistic approach to education, extending beyond the confines of academic achievement (Ministry of Education, 2007). The curriculum emphasises personal development, values, and the nurturing of effective citizenship. It also delineates specific learning areas (subject areas) and, as previously mentioned, highlights the importance of key competencies that students are expected to cultivate (Rutherford, 2005). Flexibility is a cornerstone of *The New Zealand Curriculum*, allowing schools and educators the autonomy to tailor their curriculum to the unique needs and contextual nuances of their students (McGee et al., 2010). This adaptability is often cited as a strength of the curriculum and is complemented by support from the Ministry of Education through additional resources.

Education for Enterprise Resources

Additional resources include the Education for Enterprise (E4E) resources. These resources, encompass case studies, ideas, and activities designed to assist schools and educators in addressing the 'teaching and learning' aspects of entrepreneurial education (Lee et al., 2015). As the Ministry of Education does not mandate a specific approach, each school has the flexibility to tailor its strategies according to the unique needs of its community. This aligns closely with *The New Zealand Curriculum's* philosophy of encouraging the development of a local curriculum that reflects the particular characteristics and requirements of the community it serves (Ministry of Education, 2007).

Regarding entrepreneurial education programmes, researchers (Hytti & O'Gorman, 2004; Lee et al., 2015; Thomassen et al., 2019) also suggested that there is not one model that works for all schools, rather each school has to “develop a way of integrating entrepreneurial education into their school curriculum that is reflective of their school and learners” (Lee et al., 2015, p. 15). In New Zealand, this has led to a number of different initiatives with varied levels of success (Lee et al., 2015).

Secondly, as part of the wider entrepreneurial education strategy, a regional E4E cluster initiative, a partnership between New Zealand Trade and Enterprise (NZTE) and the Ministry of Education was piloted in 2007 in four regions across New Zealand (Bolstad et al., 2009). This cluster initiative involved schools in four regional clusters: The West Coast, Nelson, Manukau, and Northland. Its aim was to expand on current activities, to go beyond them and aspire a whole-school change by using “an enterprising approach to all teaching and learning” (Bolstad et al., 2009, p. 11). The report commissioned by the New Zealand Council for Educational Research (NZCER) to evaluate the results of the cluster initiative concluded that there have been numerous benefits, as well as suggestions for improvements, which are highlighted in the report (Bolstad et al., 2009).

The NZCER report also found that in terms of achieving the six broad aims of this initiative, there have been mixed outcomes (Bolstad et al., 2009). The first aim, to set up a regional cluster to support regional E4E development, was partly achieved, as the clusters mainly supported teachers in their role and brokered partnerships, but they needed to look at improving collaboration across schools and respond to an emerging need to provide professional development opportunities for educators. The second aim, which related to creating mutually beneficial partnerships, presented several challenges due to a difference in values and operational styles between industry and schools, but the concept was generally perceived beneficial by all involved. The third aim, to provide enterprising opportunities for students, had led to students experiencing a range of opportunities ‘outside’ of regular learning. As also demonstrated by other research (Hardie et al., 2020; Lackéus & Sävetun, 2020), this causes students to be more autonomous and, thus, more engaged in their learning. The fourth aim correlated with growing students’ enterprising competencies to help

them become lifelong learners. It had two types of outcomes: general learning outcomes, such as student achievement, and outcomes that foster lifelong learner mentality. Even though data connected to student achievement could not be collected, students thought their entrepreneurial attributes had improved and principals thought that overall student engagement was higher which accords with other research (Hardie et al., 2020; Lackéus, 2018b). The fifth aim, which relates to generating a whole-school change towards an entrepreneurial culture, was partly achieved with some schools having made incremental changes towards this goal. Finally, the last aim, to be responsive to communities, including Māori and Pasifika communities, was partly achieved in some schools, but overall, the NZCER report found there was room for improvement in terms of honouring Te Tiriti o Waitangi (the Treaty of Waitangi) and shaping a curriculum according to the needs of the local community. Significantly, however, the main finding was that a shared meaning of E4E did not exist and that initiatives varied greatly from school to school (Bolstad et al., 2009) which could be linked to the earlier mentioned issue around confusion about the terms enterprise and entrepreneurship.

Despite an increase in research and activity around the world (Liguori et al., 2019), government documents and research focused on this topic are sparse in New Zealand. As previously stated, the vision of *The New Zealand Curriculum* is to create “young people who will develop the competencies they need for study, work, and lifelong learning and go on to realise their potential” (Ministry of Education, 2007, p. 6), more specifically, for learners to “be creative, energetic, and enterprising” (Ministry of Education, 2007, p. 8). Another aim is to help students become confident, connected, actively involved, lifelong learners. As international research interest has shown (Langston, 2020), entrepreneurial education could be a helpful tool in achieving these types of aims, so more New Zealand based research in this area is needed.

Conclusion

This literature review has illuminated the lack of a consistent strategy for entrepreneurial education and suggested that each school should aim for an 'ideal' model that is tailored to its community and the local circumstances, with responsibility for its execution (Lee et al., 2015). Moreover, it has highlighted that over the past decade, the predominant research perspective in this field

has been from a business standpoint (Lee et al., 2015). Only in the last two years, has there been a growing body of research from an educational standpoint, providing a more balanced academic perspective. This research further stresses the common association of the terms 'enterprise' and 'entrepreneurship' with capitalist principles, a factor that can deter educators (Simon, 2017). This association may have contributed to the failure of several previous endeavours to implement entrepreneurial education on a broader scale (Liguori et al., 2019).

Most research in this field has primarily employed an empirical or positivist approach. As this research focuses on qualitative methods and applies a natural boundary-spanning perspective, there is potential to contribute to the topic of entrepreneurial education through the application of a multidisciplinary approach. This is aligned to what Liñán and Fayolle (2015) suggested: finding a better balance between humanistic and positivist approaches could be beneficial to advancing the research field. Furthermore, the review has revealed a gap in the existing literature regarding entrepreneurial education within primary school settings. The findings of this research study specifically address this gap.

Moreover, while the volume of research in this area over the past few years has increased, this review has drawn attention to the ongoing challenge of clearly defining the terms 'enterprise' and 'entrepreneurship' (Lee et al., 2015). There is confusion around the terms, with a narrow view being associated with starting a business and a broader view with building an entrepreneurial mindset (Lackéus & Sävetun, 2020). Both terms, enterprise and entrepreneurship, have long been used interchangeably. However, researchers (Lackéus & Sävetun, 2020; Liguori et al., 2019; Randma & Venesaar, 2016; Simon, 2017) concur that 'enterprise' is typically employed in a broader context, while 'entrepreneurship' is used in a more specific sense. Simon (2017) concluded that the broader definition, coupled with the term entrepreneurship, has gained greater acceptance in recent years. Furthermore, the most recent definitional suggestion by Lackéus (2018b), called 'Enterprise Education 2.0', encompasses developing entrepreneurial competencies by giving students opportunities to create value for others. He suggested that embracing societal benefits as part of the

definition could help set entrepreneurial education free from the definitional confusion.

It appears that the sub-field of entrepreneurial education still has to find its niche (Donaldson et al., 2021). However, since the competencies which are implied when referring to the broader definition of enterprise, and which are described in *The New Zealand Curriculum*, are synonymous with what researchers such as Bull and Gilbert (2012) call 'dispositions' for a 21st century world, entrepreneurial education could be located within the topic area of '21st century skills', 'future-focused education', or 'educational futures'. This review has shown, however, that this is currently not the case, as even after various database searches only one source (Bolstad, 2011) made this connection. This could be another area which this research could contribute towards.

This review has also drawn attention to issues, including the crucial role of educators, the necessity for appropriate training and support for educators, the scarcity of studies addressing the impact of entrepreneurial education programmes, and the potential negative aspects of entrepreneurship. But despite various challenges, it has also become clear, that a growing number of researchers see potential for entrepreneurial education as a tool to aid economic recovery (Hardie et al., 2020), especially in the light of coming out of a global pandemic, and more importantly, to nurture a new generation of well-rounded citizens (Jones et al., 2014). The next chapter will outline the research paradigm, methodology, and methods employed to answer the research questions.

Chapter 3: Methodology

This study was designed to explore the role the concept of enterprise plays in New Zealand schools and how enterprise has been conceptualised and promoted in a New Zealand school context. Certain elements of a research study require deeper understanding and, thus, need to be explicitly stated. These include ontology, epistemology, theoretical framework, methodology, and research methods (Crotty, 1998). In this chapter, I outline the ontological and epistemological orientation that I selected for my research.

Before explaining the research methodology employed for this study, it is crucial to differentiate between 'research methodology' and 'research methods' to emphasise that these terms are not interchangeable (Newby, 2014). Research methodology focuses on the construction of research tools and the application of relevant research principles. In contrast, research methods are the actual tools employed for collecting and analysing data to generate knowledge, such as questionnaires, observation, and focus groups. For a researcher, methodology entails the amalgamation of these research methods to address a particular and unique research problem effectively.

My approach to this multi-site case study was influenced by critical realism and constructivism. I included four separate schools (one primary school, one intermediate school, one high-school, and one composite school) within an exploratory case study methodology and collected data using multiple methods including document reviews, interviews, and a focus group to triangulate research to ensure consistency and credibility.

The research aims encompassed obtaining detailed insights into selected schools embracing enterprise and addressing critical gaps in understanding and implementing enterprise in New Zealand schools. This contributes to both educational practice and policy discussions amid the Ministry of Education's curriculum refresh.

Some researchers critique entrepreneurial education research for its lack of methodological diversity and rigour (Neergaard & Ulhoi, 2007) and well established research paradigms (Jafari-Sadeghi et al., 2021). Even though standards for publishing research in any tradition have increased overall, this

criticism can be applied especially to qualitative research (Van Burg et al., 2022). The perceived deficiency in rigour associated with certain qualitative research has emerged as a barrier to publication in peer-reviewed mainstream journals (Neergaard & Ulhøi, 2007; Van Burg et al., 2022). I am trying to counteract this perception by being transparent about my research paradigm and methodology, being purposeful in my choices, and producing a high-quality piece of research.

Research Question

This research study involved the exploration of the perspectives of principals, teachers, and selected students within four schools, guided by the following research questions:

'How is enterprise conceptualised and promoted in a New Zealand school's context?'

- How do teachers and students experience enterprise in schools that encourage enterprise?
- How is enterprise understood, valued, and promoted by teachers in schools that embrace enterprise?
- What can be learned from schools that practice the concept of enterprise?

Research Methodology

Essential for any researcher initiating a new investigation is the development of a coherent and rigorous design that defines the philosophy, paradigms, principles, and methodology; providing the contextual framework for the research (Newby, 2014). Research methodology focuses on the construction of research tools and the application of relevant research principles. It is sometimes also referred to as 'research design'. In contrast, research methods are the actual tools employed for collecting and analysing data to generate knowledge, such as questionnaires, observation, and focus groups. Research paradigm and design are closely linked. These distinctions will now be examined in more detail.

Research Paradigm

A paradigm can be regarded as a collection of fundamental beliefs, constituting a worldview that explains the essence of the world and an individual's position within it (Denzin & Lincoln, 1994). The chosen research paradigm determines the set of rules a researcher abides with, which influences the research question. Therefore, to answer how enterprise is conceptualised and promoted in a New Zealand school context, I purposely chose to utilise a qualitative paradigm. This enabled me to be an active participant in the research and knowledge creation process, as opposed to being an 'uninvolved observer' as quantitative researchers claim to be (Krathwohl, 2009). It is essential to explicitly state and appropriately justify my preference for a qualitative study.

Using a Qualitative Paradigm. A qualitative study, as mentioned by Yin (2015), concentrates on interpreting information and forming a dialogue between participants and researcher while including the researcher in the studied scenario. According to Van Burg et al. (2022), using qualitative methods can lead to a deeper understanding of enterprise which goes well beyond exploring the phenomena and, thus, can lead to substantive contributions to entrepreneurial theory. But this also means, as Mutch (2005) highlighted, that the major issue with collecting qualitative data is to ensure that the study is trustworthy and credible. Mutch suggested that clear documentation of the research design, procedures for data-gathering and data analysis, and ethical considerations can increase trustworthiness in the study. To make the study more credible, researchers can apply different techniques to ensure that findings resonate with the participants being studied, such as member checking which, in this study, involved sharing transcripts or a summary of findings with participants for their consideration.

Entrepreneurial Education Research and a Qualitative Paradigm. As with any nascent sub-field, entrepreneurial education research is influenced by various concepts from diverse disciplines. As noted by Hlady-Rispal and Jouison-Laffitte (2014), this influence results in enterprise being viewed as a non-linear, irregular event requiring inductive logic. According to Van Burg et al. (2022), this lack of existing theory implies that qualitative research becomes crucial for breaking new ground. In contrast to quantitative methods, qualitative methods enable entrepreneurial education researchers to build theories inductively or

abductively all while having close interactions with contexts, meanings, and processes. Van Burg et al. refer to the four characteristics of enterprise that suit qualitative methods well as “the uniqueness, heterogeneity, volatility, and mundanity of the entrepreneurial phenomena” (Van Burg et al., 2022, p. 5). Uniqueness refers to the fact that several aspects of enterprise are extreme and have distinctive characters. Enterprise is incredibly diverse, encompassing a wide range of activities and contextual differences. Qualitative research allows for a detailed examination of individual cases, aiding researcher understanding of the unique challenges and opportunities entrepreneurs face. Entrepreneurial ventures are inherently dynamic, often evolving in terms of activities, scope, and performance. Entrepreneurs operate in uncertain environments, and the nature and extent of this uncertainty can vary and evolve over time.

Qualitative research is well-suited for shedding light on the intricate patterns and various processes that define entrepreneurial ventures, including the complex beginnings of business emergence. While much entrepreneurial education research focuses on innovation and growth, many ventures are simple, everyday small businesses. Qualitative research is valuable in exploring aspects that are challenging to measure, such as sensemaking, entrepreneurial identity, and daily variations in entrepreneurial behaviour.

Qualitative research provides the advantage of exploring unique cases, encompassing instances of exceptional success or failure that might not align with quantitative models. This is a characteristic relevant to my research question as I looked at unique cases in the form of four schools that embrace enterprise. Heterogeneity refers to the “large differences in the type and scale of activities that entrepreneurs perform” (Van Burg et al., 2022, p. 5). Volatility indicates the conditions of uncertainty that surround entrepreneurial activities. Mundanity refers to the fact that most ventures are small businesses and replicate pre-existing organisational forms.

Research Philosophy

The research philosophy is formative in shaping a researcher's perspectives and values regarding the world. It may encompass ethical and political dimensions, delineating what holds significance for the researcher (Newby, 2014). Newby noted philosophies as Scientism and Positivism, Humanism,

Phenomenology and Existentialism, Critical theory, and Postmodernism. These philosophical underpinnings, exploring questions of ontology and epistemology, influence researchers' values and assumptions about the existence of things, how they are known, and what constitutes real knowledge (Tolich & Davidson, 2018). "Ontology is synonymous with our personal beliefs, views, and values, and epistemology is about the procedures we use to come to know something" (Daniel & Harland, 2017, p. 2). Ontology and epistemology are closely linked to the point they are often experienced as the same thing (Daniel & Harland, 2017). As far as ontology and epistemology are concerned, researchers frequently imply their stance, rather than explicitly state it (Hlady-Rispal & Jouison-Laffitte, 2014; Knox, 2004) which can invite further criticism from opponents of qualitative research. Thus, for this research I wanted to be explicit about my paradigm. I have taken a critical realist view which recognises that reality exists independently from the human mind (Levers, 2013).

Critical Realism. Critical realism can be traced back to the early works of philosopher Roy Bhaskar (Bhaskar, 1978, 1979) who is considered the foundational and most influential figure in the development and promotion of critical realism. Critical realism contains aspects of positivism and constructivism (Given, 2008a; Hlady-Rispal & Jouison-Laffitte, 2014). While positivists see one, objective reality and constructivists several, subjective realities, critical realists acknowledge an intransitive, objective, and transitive, subjective element of reality (Hlady-Rispal & Jouison-Laffitte, 2014). This means that reality exists objectively and independent of the mind, but that knowledge is subjective and socially constructed by people involved in the research process. As Yazan (2015) and Levers (2013) put it, knowledge is not discovered, but constructed.

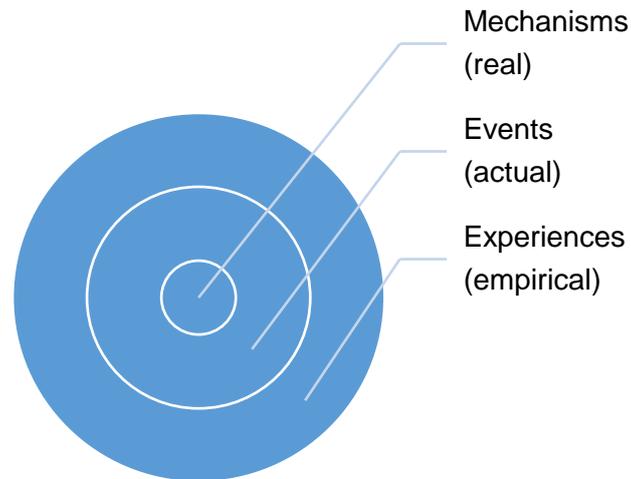
Bhaskar (1978) categorised ontological domains into three components, as illustrated in Figure 3.1: the real, the actual, and the empirical. The real domain consists of underlying structures and associated mechanisms that cause events (Hlady-Rispal & Jouison-Laffitte, 2014). The actual domain is the one in which all events occur, whether people are aware of them or not. The empirical domain consists of the experiences people have of the events. An entrepreneurial programme or a teaching unit focused on preparing for a market day represents an element within the actual domain. On the other hand, the

first-hand experiences students gain from participating in the programme or lesson fall within the empirical domain. Events and experiences can be measured more easily (Elder-Vass, 2023), so it is not surprising to see that most occurrences related to entrepreneurial education fit within those two domains. This concept of a stratified reality with three domains can be difficult to grasp and more recently, Elder-Vass (2023) argued that the three domains are superfluous and to do scientific research in a coherent way, understanding the “difference between experiences, events and causal mechanisms” (Elder-Vass, 2023, p. 3) is sufficient.

Withell (2016) described learning as an emergent outcome resulting from experience. This outcome is described as a change in a student's attributes, which could involve acquiring knowledge or altering their mindsets. Learning is seen as a process in which students engage in mechanisms that have the potential to modify their attributes related to knowledge and other aspects. Expanding on Withell's definition, a learning and teaching environment can be conceptualised as comprising three distinct layers. The first layer is the empirical level, encompassing the experiences and perspectives of both students and teachers. The second layer, referred to as the actual level, involves the tangible and observable aspects of entrepreneurial learning, including activities, programmes, and their outcomes. Finally, there is the real layer, which depicts the hidden causal mechanisms that shape and influence entrepreneurial activities and learning. These mechanisms are not directly observed but can be inferred. By way of example, *The New Zealand Curriculum* is a plan equipped with mechanisms that inform and steer the implementation of a learning environment. While this research primarily reflected the empirical domain by exploring the experiences of participants, reflexive thematic analysis has also revealed certain underlying mechanisms that either support or impede the implementation of enterprise in schools.

Figure 3.1

Three Layers of Reality as Described by Roy Bhaskar



The aim of critical realism is to uncover phenomena and understand their definition based on partial fragments of the phenomena. Truth, as attained through interpreting glimpses and perspectives of the knowers, negates the need to examine the entire phenomena for establishing its existence (Levers, 2013). In other words, determining the existence of an entity does not always require direct observation. As mentioned by Given (2008a), this also means that knowledge is fallible and open to change as only the real and actual domains can be perceived. The ontology upholds the existence of an objective reality, shaped by events and their underlying causes. However, these dimensions of reality cannot be known for certain (Given, 2008a). As a result, researchers are reminded to be self-aware of their own subjectivism and “to check interpretations with participants during interviews or ask a third person to audit the analysis” (Hlady-Rispal & Jouison-Laffitte, 2014, p. 610). To mitigate subjectivism in this research, transcripts were shared with participants and the data analysis was cross-checked by my supervisor.

This paradigm was selected primarily because it resonates with my personal ontological stance of realism and the epistemological stance of relativism. Consequently, it accommodated the constructivist epistemological stance embraced by me as a researcher. Aligned with my professional values of integrity, respect, and social justice, it corresponded with my personal interest in identifying and comprehending the underlying factors contributing to specific phenomena. The chosen paradigm acknowledged “the social context of human

interaction" (Lee et al., 2015, p. 796), rendering it a valid research methodology in entrepreneurial education research. Furthermore, since it includes positivist and constructionist elements, it acted as a bridge between scientific and socio-cultural domains (Withell, 2016). This was especially appropriate since my research aimed to bridge the gap between the vast amount of business research and the limited amount of education research within this topic. This paradigm also encouraged the use of multiple methods (Van Burg et al., 2022) which aligned with my plan for this study and will be further discussed in the methods section below.

My role as a researcher was to understand and interpret "the complex world of lived experience from the point of view of those who live it" (Mertens, 2010, p. 16). Epistemology, which looks at the relationship between knowledge and knower, is concerned with how I make meaningful sense of the world (Levers, 2013). Thus, from an epistemological position, researcher and participants are linked, interactively creating meaning together. As Mertens (2010) put it:

This interactive approach is sometimes described as hermeneutical and dialectical in that efforts are made to obtain multiple perspectives that yield better interpretations of meanings (hermeneutics) that are compared and contrasted through a dialectical interchange involving the juxtaposition of conflicting ideas, forcing reconsideration of previous positions. (p. 19)

Research Design

The character of a particular research design is intricately moulded by the nature of the research question, and regardless of the chosen approach, a robust link between the question and the method employed must be established (Newby, 2014). There are a number of design approaches a researcher can choose from. A few of these are ethnography, observation, action research, and case study. A case study involves a thorough examination of a specific circumstance or event, selected either for its typicality, uniqueness, the presence of a problem, or successful outcomes. I selected case study as my design approach, as it aligned with my ontological and epistemological preferences and allowed me to investigate my research questions.

Case Study

To gain better interpretations of the meanings the research participants associate with enterprise, I used multiple methods within a case study methodology (Yazan, 2015). According to Merriam (1998), a case study can focus on a group, programme, or community, as long as the researcher can set clear boundaries. Stake defined it as a 'bounded system' that researchers should examine as an object, rather than a process (Yazan, 2015). Newby (2014) stated three different purposes of case study: description, explanation, and exploration. Descriptive case studies describe, explanatory case studies usually explain an outcome that has already happened, and exploratory case studies try to explore something at a deeper level. Eisenhardt (1989) stated that case studies can be used to describe, to test theory, or to generate theory. Since I sought to understand how enterprise was conceptualised within a school context, and considering this topic area was still new, this case study was exploratory and utilised to generate theory.

Building theory from case studies is a "strategy that involves using one or more cases to create theoretical constructs, propositions and/or midrange theory from case-based, empirical evidence" (Eisenhardt & Graebner, 2007, p. 25). This means that the cases form the foundation from which theory is being built inductively. It builds on 'replication logic' and therefore, each case serves as its own experiment, like a series of experiments in a laboratory. To be recognised as theory-building research, readers must be convinced that the research questions cannot be answered by existing research. As explained earlier, most of the research in this topic area stemmed from business literature, focused on older children, and was of quantitative nature.

Given the need to avoid reductionism and instead examine phenomena as a whole, a methodology such as case study, which is suggested by Neergaard and Ulhoi (2007), appeared fitting for addressing my research question. The more flexible approach of case study methodology with its focus on exploration over prescription enabled me to gather rich information (Mutch, 2005) and aided me in addressing the "how" and "why" questions regarding the phenomenon of interest. As Yin (2009a) pointed out, a case study methodology gives researchers the opportunity to discover more freely and address any issues which may arise during the experiment.

For this research, I chose a multi-site case study consisting of four separate school communities or sites. Since most of the existing research focuses on secondary schools, I wanted to include younger students, hence my initial focus on a primary school, a composite, and an intermediate school. However, as I started recruiting participating schools, a secondary school was highlighted in the media for their entrepreneurial activities, so I amended my initial case study to include a fourth school. This case study is considered a complex case study. According to Yin (2009b), a complex case study consists of multiple layers and a number of embedded units or sites. In this instance, the case study consists of three layers (principals, teachers, and children) and each of these groups represents an embedded unit or site. Interviews were conducted with principals in each school, and in three of the schools, teachers were also interviewed. Additionally, children in one of the schools were included in the interview process. As a result, this case study comprised a total of eight embedded units spread across four schools.

Limitations of Using a Case Study Methodology

Even though using a case study is one of the most commonly used qualitative research methodologies, not just within the field of education research (Penaluna et al., 2020), it is still not accepted as a legitimate social science research methodology. Yazan (2015) suggested that it is due to its lack of well-defined protocols, but it could also be related to the fact that the three most prominent methodologists, Yin, Merriam, and Stake, diverge in their perspectives on the design and implementation of this methodology. The issues of credibility and coherence of the data collected are commonly raised. Potential biases regarding the data collection could be seen as an issue. Firstly, the fact that this case study involves four cases (schools) counteracts this argument. To strengthen my findings further, I have used a combination of qualitative methods such as interviews and a focus group. This allowed for triangulation of findings and makes this study less open to criticism (Yin, 2009b). Bringing the different types of evidence together “involves juxtaposing the different pieces of evidence, to see whether they corroborate each other or provide complementary (or conflicting) details” (p. 265).

Research Methods

Research methods encompass the techniques used to gather data for analysis (Newby, 2014). The links between research philosophy and methods are often confused and poorly understood (Knox, 2004). Philosophies can influence the choice of methods, but methods are not inherently tied to a specific philosophy. It is essential to choose appropriate methods that align with each research question. The critical realist paradigm, which I chose for this study, encouraged the use of multiple methods, also referred to as 'methodological pluralism', which according to Knox (2004) and Van Burg et al. (2022) should be embraced by entrepreneurial education researchers to allow for diverse forms of analysis and enable the development of new theories. This again aligned with the methods I used to answer this research question as depicted in Table 3.1 below. Therefore, the research design for this study included methods of document reviews, interviews, and a focus group across four selected schools that embrace enterprise.

As pointed out by Dana and Dana (2005), surveys or interviews alone are not sufficient in getting a holistic understanding of the environment. A document review, including school documents and school websites, has been an additional, complementary source of information (Akkaş et al., 2020).

Interviews

Interviews, defined as "a specialised form of communication between people for a specific purpose associated with some agreed subject matter" (Anderson, 1990, p. 222), can be one of the most enjoyable research activities as it can reach areas other methods cannot get to (Mutch, 2005). Also described as conversations with a 'purpose' (Wellington, 2015), they can be advantageous since the researcher can check the participant's understanding of the question.

Table 3.1

Summary of Research Questions and Methods Applied.

Research questions	Research methods
How is enterprise conceptualised and promoted in a New Zealand school's context?	Principal & teacher interviews, focus group, document analysis
How do teachers and students experience enterprise in the context of schools that encourage enterprise?	Teacher interviews, focus group, document analysis
How is enterprise understood, valued and promoted by teachers in schools that embrace enterprise?	Teacher interviews, focus group, document analysis
What can be learned from schools that embrace the concept of enterprise?	Principal & teacher interviews, focus group, document analysis

However, they can also be very time-consuming (Mutch, 2005). Looking at the different types of interviews on a continuum from very prescribed (structured) and fixed, to having a loose theme (unstructured), I decided to choose semi-structured interviews, which allowed for some structure as topics and questions were outlined in advance, but also allowed for flexibility to change or add questions based on each individual conversation (Miles et al., 2014). Using these prepared questions (Appendix L), I conducted semi-structured, one-to-one interviews with four principals and three teachers across the four schools to understand how enterprise was conceptualised by each individual.

Focus Groups

Initially, my research plan included conducting a focus group at each of the participating schools. The objective was to gain insights into how students perceive and conceptualise enterprise, thereby ensuring equitable representation of children's perspectives in my study. However, as I will elaborate in the discussion chapter under 'challenges' below, I encountered several challenges that resulted in the execution of a focus group solely at Creativity Composite School. Yin (2009b) described focus groups as group discussions around an area of focus. They are a form of in-depth interview and the loose design offers flexibility to the researcher.

Figure 3.2
Words/Pictures Children Chose from

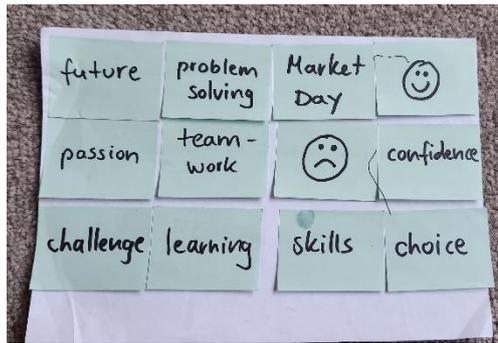


Figure 3.3
Diamond Ranking Example



Since research involving children is more difficult, children's voices are often not represented. This research acknowledges that children are active and competent social actors (Alderson, 2005) and, thus, an important part of this data collection. The focus group was built upon data collected from teachers and used concepts or activities mentioned by the teachers to make the abstract ideas of enterprise accessible and understandable for students in a playful way. The children took part in 'diamond ranking'³ and were given words which they ordered Figure 3.2. They were asked to rank nine out of the twelve sticky notes into a diamond shape with the most important up the top and the least important at the bottom of the diamond as shown in Figure 3.3.

This approach was chosen because, as Newby (2014) suggests, it is an innovative method to help participants, in this case, children, express their comprehension of the subject. The intention was not only to make it an enjoyable experience for the children, but to encourage their active involvement in this study through creative activities like drawing and word ordering.

Similar to other research methods, focus groups have limitations. These encompass factors such as the time-consuming nature of data collection, limited control over participants and their contributions, the inability to generalise findings, and challenges in guaranteeing the anonymity of participants (Yin, 2009b). Apart from adjusting the planned diamond ranking

³ Diamond ranking is a thinking skills tool designed to facilitate talk and encourage people to consider their values on a given topic. <https://www.ncl.ac.uk/cored/tools/diamond-ranking/>

activity due to having fewer students than expected, no other issues were encountered during this method.

The data collected included audio recordings of the interviews and the focus group which had been transcribed professionally, and reflexive journal recordings complemented by written notes and pictures of what the children created in the focus group (Appendix Q). I made extensive field notes and recorded various voice messages to capture my thoughts throughout the data collection phase in order to take advantage of the overlap of data collection and analysis that can occur (Eisenhardt, 1989).

Furthermore, a document analysis, which is often used as part of a case study (Mutch, 2005) complemented the data collection methods. Bowen (2009) described a document analysis as a “systematic procedure for reviewing or evaluating documents” (p. 27). It involves the examination and interpretation of data to extract meaning, develop understanding and create empirical knowledge. In the approach I adopted to analysing documents, I reviewed strategic plans, school websites, Te Kete Ipurangi (TKI) resources, and *The New Zealand Curriculum*. Documents can serve a variety of purposes including providing data on the context, suggesting research questions that need to be asked, tracking changes, supplementing research data, and verifying findings from other sources. Since the documents I used form part of data triangulation, the last two purposes are relevant here. Limitations of this approach include potential insufficient detail and what Yin (2009a) terms 'biased selectivity,' wherein chosen documents may align with an organisation's agenda. To analyse documents, researchers need to apply an iterative process consisting of skimming, reading, and interpreting data. Thus, utilising a combination of content and thematic analysis. This strategy accords with the general approach I took in this study.

Data Analysis

Thematic analysis is a widely utilised method for qualitative data analysis in various disciplines and fields, including the social sciences, behavioural sciences, and more applied areas such as clinical practice, health research, and education. Rather than being defined as a single method, thematic analysis is described as a range of approaches that share a focus on developing themes

from qualitative data. There are a number of different types of thematic analysis. I was drawn towards reflexive thematic analysis as defined by Braun and Clarke (2012) since it values the subjectivity of a researcher.

Reflexivity is a disciplined practice that entails critical examination of actions, methods, motivations, and their impact on and shaping of research. Reflexivity involves the ongoing process of self-examination, where one consistently assesses and reflects upon the underlying assumptions, expectations, choices, and actions throughout the research process. Locating myself as a researcher means understanding which philosophical and theoretical assumptions shape my research, as well as recognising how personal perspectives are shaped by individual experiences, socioeconomic background, race, and related factors.

One of the advantages of reflexive thematic analysis is that it is theoretically flexible, and researchers can approach it in a range of ways which align with my own views. I applied the six-step process as suggested by Braun and Clarke (2012). The initial phase involves getting acquainted with the dataset, followed by the second phase of assigning concise, meaningful code labels to relevant data segments. These codes capture specific meanings or concepts in the data, ranging from explicit to implicit. For me, these first two steps merged together. Initially, I listened to my recorded reflections and field notes, which were made during and immediately after data collection. Afterward, I read through all the transcripts, highlighting emerging patterns and insights. During subsequent readings of the transcripts, I began the process of hand-coding and organising these codes into larger data segments, which eventually led to the creation of child codes and initial themes. After actively reading and re-reading the data, I identified common themes which describe the 'essences' of the described experiences (Langston, 2020).

I adopted an inductive, data-driven approach to develop my codes, aiming to uncover how teachers, principals, and students experienced enterprise within their school contexts. This inductive approach means that the insights drawn from the data dictated the codes used, rather than relying on pre-established codes or a guiding theory. In reflexive thematic analysis, codes can be formulated along a continuum, spanning from semantic (participant-driven and descriptive) to latent (researcher-driven and conceptual) levels (Braun & Clarke,

2012). At the semantic level, coding involves the exploration of meaning at the surface of the data. The majority of my codes were 'latent', indicating an effort to surpass superficial meanings and unveil deeper layers of significance within the data. This was particularly challenging when participants used terms like 'entrepreneurial' when they were referring to having an 'enterprising mindset'.

A similar approach was employed in the development of my three themes. While codes capture specific meanings, themes encapsulate broader, shared meanings. In reflexive thematic analysis, themes represent shared meanings centered around key concepts within the dataset (Braun & Clarke, 2012). Due to my inclination toward visual thinking, I employed mind maps to arrange codes and child codes in various configurations, facilitating the development of themes that addressed my research questions. This phase corresponds to the third stage in the process outlined by Braun and Clarke.

The fourth phase involved the development and review of themes. During this stage, I imported my data into NVivo, which allowed me to create thematic maps and arrange and rearrange data segments. I also conducted word frequency queries on NVivo, although these queries did not yield very useful results in my case. This phase had an element of playfulness to it, as I enjoyed observing different patterns emerge.

Before entering the fifth phase, which involved refining and naming themes, I conducted a third reading of the data and finalised my codes, child codes, and themes. Overall, my experience with this six-phase process was more fluid and cyclical than linear. However, the structure provided by Braun and Clarke (2012) was valuable in guiding my analysis. Keeping a reflexive journal, which consisted of written and recorded notes, was particularly helpful, as recommended by Braun and Clarke. Throughout the first five phases, I also sought feedback from my supervisor to validate my thought processes. As Braun and Clarke pointed out, the final stage, writing up, often begins earlier in the process as researchers develop themes. This phase is ongoing while the thesis is still being edited. Analysing data thematically is not only a useful method when working with participants as collaborators—as themes can be identified at the time the data is produced, and research results are easily

accessible for the general public—it is also an easy method for a novice researcher to acquire (Miles et al., 2014).

Participant Selection

Purposive selection was employed to identify suitable participants from four distinct educational settings: a primary school, an intermediate school, a secondary school, and a composite school. Given (2008b) saw purposive selection as “a series of strategic choices about with whom, where, and how one does one's research” (p. 2). This implies that the selected person is important, in contrast to other research methods where participants are seen as interchangeable. Given (2008b) added that the value of research participants is not equal, as a well-selected participant will contribute far more to the advancement of a study than 50 randomly chosen participants. Either argument was valid in my case. Choosing four examples of schools which really embrace enterprise, also known as ‘extreme cases’, gave me the best representation of the phenomena in question (Given, 2008b). Extreme cases are often regarded as ‘best practice’ since any lessons learned may be transferable into more typical cases (Patton, 1990). Observing how enterprise has been embraced across those schools provided a tangible illustration of what it can look like when implemented.

Principals were initially contacted by an email that contained a concise research summary, invitation to request further information, and a Participant Information Sheet (see Appendix B). In general, a positive response was received within a week, and all principals willingly agreed to participate. Principals facilitated my introduction to their staff, either through staff meetings or email correspondence. Interviews with principals were conducted within two months, while teacher interviews occurred over a four-month period. However, despite multiple attempts, interviews with teachers from one school could not be arranged due to scheduling conflicts and frequent staff illnesses. Arranging focus groups proved to be the most challenging part of the process, largely due to scheduling conflicts and school holidays. The interviews and the focus group typically lasted 30–60 minutes and followed a uniform set of questions. Participants were encouraged to explore these questions on a deeper level or divert the conversation as they saw fit. To ensure redundancy of recordings, the interviews were recorded using both a voice recorder and a phone.

Ethics

Ethics, as defined by Wellington (2015), pertains to the guiding moral principles held collectively by a group. In the realm of research, especially within educational research in which individuals are the focus, ethical considerations are paramount. Ethics extends to various aspects of research, encompassing its design, methods, analysis, presentation, and conclusions. This significance is amplified when studying individuals, particularly young children. Researchers, by the very nature of their work, wield a certain degree of influence and power (Mutch, 2005). Consequently, researchers must be acutely conscious of potential ethical quandaries both prior to embarking on their research and throughout the research process itself.

This research has been guided by my strong personal values of integrity, empathy, and equality. Adopting a constructivist paradigm and employing reflective thematic analysis necessitated my active participation in the research process. The foundational idea of social knowledge construction shaped this study and fostered a necessary collaboration among all participants. However, this approach raised concerns about the close relationship that naturally developed between the researcher and the participants. Furthermore, as highlighted by Braun and Clarke (2012), the process of interpretation in research presents significant ethical challenges due to its transformative nature. Interpretation does not offer a simple, pure description; it inevitably stems from a particular standpoint or collection of positions. This essentially makes interpretation a political act. The act of 'representing participants' is recognised as one of the most significant ethical dilemmas in qualitative research.

Ethical guidelines emphasise the professional responsibility to safeguard individuals from harm caused by the misuse or misrepresentation of research. Ethical qualitative researchers must consider the ethical and political dimensions of representation in analyses. As discussed earlier, reflexive thematic analysis research is a process of constructing and conveying meaning, rather than simply summarising what participants have said (Braun & Clarke, 2012). In essence, representational ethics entail the question of how to narrate a story without causing harm. Interpretation is inherently non-neutral and subjective, occurring from a specific standpoint. Particularly within a constructivist epistemology that recognises diverse perspectives of a

phenomenon, researchers must strive to minimise misrepresentations (Yazan, 2015). To address this issue, Stake (1995) proposed triangulating data to facilitate the development of the "most credible interpretation or knowledge about the case" (Yazan, 2015, p. 147).

In order to safeguard the rights and well-being of all participants in this study, several key ethical considerations were addressed. Firstly, obtaining informed and voluntary consent was paramount so for children under 16, Assent Forms (Appendices E–G) tailored to their comprehension, were provided in addition to guardian consent (Appendix J). These forms were used to make abstract concepts of enterprise accessible. Maintaining privacy was also crucial and participants were able to withdraw at any time, request removal of their material, and have their identities protected by the transcriber. Information shared was treated as strictly confidential and the research data is being securely stored for ten years. Furthermore, the recordings and transcriptions are being carefully managed and stored on a secure drive. Additionally, the risks for discomfort or embarrassment were minimal with this study. Participants were given the chance to review interview transcripts, and both a summary of findings and the thesis were shared with them. Especially with children participating, efforts to mitigate power imbalances were made. Lastly, participation was voluntary and thank-you gifts were handed out after participation to prevent undue influence.

Conclusion

This chapter has outlined my paradigmatic and design approaches to this investigation into the role of enterprise within New Zealand schools. The ontological and epistemological orientations I chose were shown to be appropriate for this research that explored some of the dynamics of entrepreneurial education.

A critical realist perspective, constructivist epistemology, and case study methodology guided this investigation, with a focus on four diverse schools to ensure a comprehensive and credible analysis. By engaging with principals, teachers, and students, this research aimed to provide valuable insights into the implementation and impact of entrepreneurial education within New Zealand schools. The subsequent chapter will present and discuss the findings derived from the employed data collection methods.

Chapter 4: Findings

The aim of this study was to uncover how enterprise has been conceptualised and promoted within four New Zealand schools—one primary school, one intermediate school, one secondary school, and a composite school (Years 1-13). To get different insights into how enterprise might be embraced by New Zealand schools, I chose four different schools across all age groups. These have been summarised in Table 4.1. To ensure privacy, pseudonyms were assigned to both the schools and participants.

Pioneer Primary School is a small rural school with around 100 students. The school initially faced the problem of having unused land that incurred ongoing costs. The principal, who had gained an understanding of authentic learning experiences during their sabbatical, spearheaded the establishment of five agricultural projects. These projects aim to offer students genuine learning opportunities and create a distinctive local curriculum. The participant teacher interviewed has been at the school since the concept of authentic learning was first introduced. Many parents within the community come from an agriculture and farming background.

Innovation Intermediate is located within an urban area and has around 500 Year 7 and Year 8 students. With a principal passionate about enterprise, the school has enterprise as a learning focus in Term 4 every other year. The diverse school community is very creative and includes many business owners.

Catalyst College is a private school in an urban area with around 700 students. The school has developed a range of graduate qualities it seeks to nurture in students which enables the school to shape a range of learning opportunities in addition to meeting the requirements of *The New Zealand Curriculum*. The principal has always recognised the value of enterprise but has only recently been able to recruit a teacher to lead this focus within the school. Before joining the current school, the teacher, who has initiated several entrepreneurial projects over the years, had worked in secondary schools in Australia, where there was a strong emphasis on enterprise. There are several startup entrepreneurs within the school community, including many Alumni.

Table 4.1

Summary of Participating Schools

Type	Location	Size	Pseudonym
Primary	Rural	100	Pioneer Primary School
Intermediate	Urban	500	Innovation Intermediate
Composite	Urban	100	Creativity Composite School
Secondary School	Urban	700	Catalyst College

Creativity Composite School caters for Year 0–13 students and is a private school with around 100 students in an affluent urban area. With a personalised learning approach which uses *The New Zealand Curriculum* as a base, the school follows an organic curriculum approach with a focus on interdisciplinary learning units that help each student unlock their unique potential. The principal sees clear advantages in having an enterprising mindset and the school has an enterprise-related overall theme each year in Term 4. The school community consists of many successful entrepreneurs and business owners.

In each school, interviews were conducted with the principals, along with teachers from all but one school. Despite numerous efforts to schedule a focus group at each school, I was only able to run a focus group with four students at the Creativity Composite School. To uphold privacy, pseudonyms as depicted in Table 4.2 below were assigned to the participants.

Table 4.2

Summary of Participants

Pseudonym	Role at school	Background
Pia	Principal	Experienced, primary-trained, enterprise champion
Paula	Teacher	Experienced, grew enterprise efforts at school, primary-trained
Ian	Principal	Experienced businessperson, enterprise champion
Carmen	Principal	Progressive, overseas teaching experience, enterprise champion
Chris	Teacher	Experienced, uses various teaching styles
Susan	Principal	Experienced, enterprise champion, primary-trained
Simon	Teacher	Overseas teaching experience, entrepreneurial experience

This chapter will outline the key findings. The data that were gathered through semi-structured interviews and a focus group were analysed thematically. The analysis gave rise to four main themes (enablers of enterprise within schools, challenges of embracing enterprise in schools, enterprise in the context of '21st century' learning, and outcomes of embracing enterprise in schools) and ten subthemes which are listed in Table 4.3 below.

Table 4.3

Themes and Subthemes Which Emerged From Interviews and the Focus Group.

Themes	Subthemes
Enablers of enterprise within schools	Enterprising behaviour among teachers and principals Having a supportive ecosystem
Challenges of embracing enterprise in schools	Defining enterprise Inconsistent implementation of enterprise in schools Systemic challenges
Enterprise in the context of 21st century learning	Future-focussed education Enterprise and its link to authentic learning
Outcomes of embracing enterprise in schools	Students finding and pursuing their passion Increased engagement from teachers and students Students acquiring 'hard' and 'soft' skills

Theme One: Enablers of Enterprise Within Schools

Interviews focused on the participants' perceptions of enterprise and how it manifests in their learning environments. The responses indicated some of the favourable conditions within schools that enable the implementation of enterprise. This theme is comprised of two sub-themes which will be discussed in detail below: enterprising behaviour of teachers and principals and having a supportive ecosystem. Other topics were raised in the interviews, such as the role of resources and one's personal knowledge of and about enterprise. These will be covered under challenges, rather than enablers, as it is a more fitting context for the answers that were given.

Enterprising Behaviour Among Teachers and Principals

A significant result from the participant interviews in the schools that have introduced enterprise is that these teachers and principals exhibit enterprising behaviours themselves. Participating principals frequently had to pitch their ideas and build a case for additional resourcing. Examples of comments include:

*The teacher, who is quite entrepreneurial minded came to me and said, do we have any funding available? I was like, look, I just don't know. So, I went to the board [and pitched] ...
(Carmen)*

I pitched to the board about wanting to do this [enterprise] and why we wanted to do it. (Susan)

Participant teachers and principals also displayed competencies such as problem solving, and critical thinking, as well as traits such as perseverance and adaptability, which are associated with the broad definition of enterprise education (Lackéus & Sävetun, 2020). For example, one principal had to wait eight years before having the resourcing to focus on enterprise, and another teacher challenged himself to embark on an entrepreneurial project to lead by example:

I challenged my students and said: I'm going to create an app and get it in the app store...[I thought to myself] if I can do this, then other people can do it as well. (Simon)

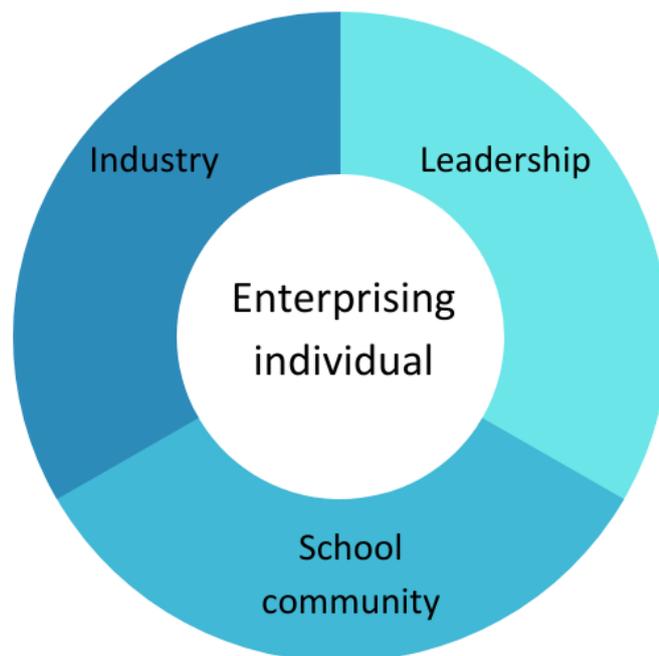
Although most of these participant principals and teachers acted or thought in an enterprising way, they did not refer to themselves as entrepreneurs and, in most cases, they did not seem to associate their behaviour with having an enterprising mindset, which was a surprising insight. Further investigation of these concepts revealed that while enterprising behaviour frequently serves as a catalyst and is one of the enablers of embracing enterprise within a school, it is challenging for the enterprising individual to advance any enterprising activity within a school without a supportive ecosystem.

Having a Supportive Ecosystem

An ecosystem is an ecological unit consisting of a complex community of organisms and their environment (Merriam-Webster, n.d.). When transferred into a business context, it is often described as a network of businesses like an ecological ecosystem, due to its complex and interdependent nature. This study of what facilitates enterprise in New Zealand schools made it clear that, rather than one single variable, a combination of interconnected enablers consisting of leadership, a supportive school community, and supportive industry partners is required. These interconnected parts are illustrated by the conceptual framework in Figure 4.1 below.

Figure 4.1

Conceptual Framework That Enables Enterprise in Schools.



The central idea that emerged is the crucial role of principals as explicit champions of enterprise, leading the school's efforts in this regard. For example, the principal of Pioneer Primary School mentioned that she is the “one that pushes enterprise”. Another teacher said that “the principal was a very innovative and future focused person and gave me a lot of opportunity to develop these programmes” (Simon). This finding aligns with research by Bolstad et al. (2009), which stated that principal support is crucial in the success of the E4E initiatives that were implemented in New Zealand.

It was also insightful to understand what measures the principals took to show the strategic importance of enterprise to their staff and the wider community. These included developing a local, whole school curriculum, and making enterprise a topic focus for a whole term:

We've written it into our two-year cycle that enterprise and innovation are two big things... I think it's important that you've got leadership that value the importance of it. (Ian)

It needs to be a whole school theme, so it must be connected to everyone, otherwise it becomes single pods [of activity]. (Pia)

Arguably, having such an enthusiastic principal driving enterprise might be problematic, given this principal's strong opinion on how things should be done within the school. The creativity and engagement of teachers and students may eventually be limited in this way if they feel constrained. To minimise this problem Timperley et al. (2014) urged school leaders to create a distributed leadership model to nurture the leadership of others. Nonetheless, having others in the ecosystem supporting the principal in this endeavour makes successful implementation possible.

Thus, an important part of this ecosystem worth mentioning is the school community, specifically parents, caregivers, and whānau (family). Having supportive parents can make a difference to the opportunities schools can offer. Support was seen in this study to range from parents being “really excited” (Susan) and helping students with their projects for Market Day, to parents actively seeking out ways to augment the learning environment, such as by volunteering on judging panels (Carmen). The following comments showcase how teachers and principals value the support they receive:

The benefit of working for an organisation that is funded by entrepreneurs themselves, is that they've always got some really creative solutions to what we're looking at, so it's really cool. (Carmen)

They [community] love it [the focus on enterprise]. This is a very creative community. This is a very realistic community. This is a community that's got some really surprising, amazing people in it who do pretty cool things. (Ian)

It was particularly interesting that two of the schools were looking at setting up a fund to invest in student ideas to provide a better pathway for them. This could be an area for further research.

The last part contributing to having a supportive environment is the willingness of industry to partner with schools and support their efforts in implementing enterprise. For a school, being able to draw on guest speakers who act as role models and share their experiences, as well as having the option for students to visit startups or businesses, provides an important extension to their learning. One principal mentioned that "hearing from real people, relatable real people, what their journeys are in enterprise" (Ian) is valuable, especially if these people are Alumni of the school itself. Other comments related to the value of having industry partners showing students different journeys and potential career paths. Bringing in external experts also allows schools to draw on experts, without having to become the experts themselves. This aligns with research around the changing role of a teacher towards being a 'learning coach' rather than an imparter of knowledge (Benade, 2017; O'Brien & Murray, 2015). Additionally, being able to link in with events or challenges that are external to the school provides additional learning experiences for students, with the ultimate goal of creating a more open learning environment that includes the wider community (Ratten & Usmanij, 2020).

Summary

The interviews highlighted that to successfully implement and embrace enterprise within a school, several enablers must be present. The circumstances in which teachers work can be compared to those of an entrepreneur, as they are both resource-poor and trying to do something different. Therefore, having people with an entrepreneurial mindset themselves leading the enterprise initiative at a school seems to be advantageous. Having a

supportive ecosystem around the enterprising individual consisting of a supportive principal who leads these efforts, industry partners and a supportive school community who are willing to actively get involved and share their expertise, also seem to enable enterprise at schools. Not all of these enablers were present in all school contexts to the same extent, but all participant schools had a principal championing enterprise and it appears that the more of the other enablers are in place, the easier it is for a school to be successful.

Theme Two: Challenges of Embracing Enterprise in Schools

In all interviews, participants were specifically asked to discuss the challenges they face when implementing enterprise within their school environment. This theme was not as significant as might be expected, given that enterprise is not widely promoted within New Zealand schools, requiring those that embrace it to have to overcome various struggles. This theme of challenges consists of the sub-themes of defining enterprise, inconsistent implementation, and systemic challenges. Each of these sub-themes will be discussed in detail below.

Defining Enterprise

Defining enterprise is clearly a significant challenge. This is not surprising, since academics have also not settled on a universal definition (Arruti & Paños-Castro, 2020; Langston, 2020). Whatever definition is applied, the concept of enterprise is very abstract and thus, can be difficult for people to grasp. As one principal articulated:

My biggest challenge, to take the abstractness away of enterprise into a purposeful application to something I'm going to do. (Pia)

In this research, the issue was further complicated when participants were asked to differentiate the terms, 'enterprise' and 'entrepreneurship'. Definitions ranged from the narrow view of starting a business, to the wide view of having an enterprising mindset, and the notion to create something of value. This also reflects how definitions in academia have evolved (Lackéus, 2018b).

Furthermore, most participants related authentic and future-focused learning concepts with these terms.

Most of the participants associated 'starting a business' with the term entrepreneurship, but they also acknowledged that in New Zealand some confusion exists since 'starting a business' is a focus of the Young Enterprise Programme (YES)⁴. Thus, the term enterprise might also be used when referring to 'starting a business'. When exploring the underlying concepts participants associate with starting a business, it became apparent that it was not just about making money, but about creating a livelihood through something students are passionate about (passion will be further discussed later as part of the 'Outcomes' theme). One principal described it as '*self-sustainability*'. Other participants described it as follows:

Everything that they do here has the possibility of providing them with a living. (Pia)

If you're a passionate writer, what's stopping you from writing a book? Nothing. It's having that mindset that you can do it, you just need to do it, and there are people that can support you to make that happen. (Ian)

... with the skills you've learnt [you can] make a living for yourself... (Pia)

In relation to starting a business, participants also talked about the connection to creativity and being able to spot opportunities.

...entrepreneurial to me feels more like creativity in thinking. (Carmen)

An entrepreneurial person, I would say, is very closely tied to it but someone that's really opportunity obsessed, that is actively looking for problems to solve, actively looking for ways in which they can have a positive impact and often at the end of that is the creation of a sustainable solution, often an enterprise. (Simon)

When talking to students as part of the diamond ranking, some used the word 'entrepreneur' or 'entrepreneuringship' [sic] and related it back to the idea of

⁴ Young Enterprise (YES) is a New Zealand Charity aimed to provide young people with opportunities to develop an entrepreneurial mindset, inspiring them to succeed in business, in their communities and in life. YES offers a range of programmes and resources for teachers and schools.
<https://youngenterprise.org.nz/>

starting a business. They described it as “inventing something and then working really hard and selling it” or “inventing something and selling it at Market Day”.

In addition to the narrow definition of starting a business, defining the term enterprise as having an enterprising mindset also came up in every single interview. Although, a few participants would use the term *entrepreneurial mindset* to describe it instead, it was clear that the terms were used interchangeably. It is about having a set of skills and capabilities such as problem solving and critical thinking, that enable students to thrive in this ever-changing environment. Participants summarised these as follows:

...enterprising is a mindset, but also personal characteristics. (Simon)

...a journey for a student in appreciating their strengths and finding ways to problem-solve and think critically...(Carmen)

...entrepreneurial mindset [is] having the courage to try something and if it doesn't work out, well, reset and try again or try something different. (Ian)

The importance of learning skills and capabilities that go *beyond* starting a business and are transferable to other areas of life was particularly emphasised:

Even if you don't go on to take it any further, you've taken away a lot of skills, which are transferable to other areas. (Chris)

They can put their hand to this, and they can learn all sorts of skills, not just knowledge, but skills for life. (Paula)

...a big focus for us is capability building rather than business or start up building. If that's a consequence or if we see that happening, that's great, because there's so much that can be learned through that, but it's the entrepreneurial capabilities, I think that are more of our focus. (Simon)

I think it's important that somewhere in your fabric you have the concept that enterprise is an important set of skills and attitudes to have to be successful in today's world. (Ian)

These comments also highlighted a strong link to concepts of future-focused education which will be picked up in the next theme. Having a clear definition in

place may also help with another challenge making it hard for schools to embrace enterprise: how inconsistently enterprise has been implemented across various schools.

Inconsistent Implementation of Enterprise in Schools

Aside from having a Market Day which seems to be a common thread among the participant schools, the way they implement enterprise varied greatly depending on their unique contexts. This can be a challenge when trying to achieve consistency. For example, Pioneer Primary School may not have embarked on the authentic learning journey, if the school did not have excess land to farm. Catalyst College and Creativity Composite School, both have a unique student body and are aware of how this relates, both in positive and negative ways, to the learning environment they provide. Other comments were made in relation to the importance of exchanging ideas and working together with fellow colleagues, which can be a challenge depending on the school context (Paula).

A school's context influences what a school can and cannot do. Regarding enterprise, it determines whether a school treats it as a separate subject or takes an integrated approach by weaving enterprise into the curriculum more holistically. The findings suggest that Catalyst College was the only school of the four that treated enterprise as a separate subject. This might be due to the New Zealand secondary school curriculum being so full already, and often constrained by NCEA requirements, that teaching *business* as a subject is often the easiest way to implement enterprise. One of the comments was that "the challenge is trying to find time and opportunity to get the students to do it [enterprise studies] in a very busy timetable" (Simon). The school offers a variety of enterprise learning opportunities, such as extracurricular activities and pop-up learning, because the leadership of the school also recognises that learning happens everywhere. Catalyst College has also defined what attributes a student shall ideally possess. Since many of these qualities can also be called enterprising characteristics, there will be more opportunities for its students to experience enterprise within their schools' context. This might be another area for further research.

The other participating schools took a more integrated approach to implementing enterprise. Some dedicated a whole term to enterprise and culminated the learning with a Market Day, whereas Pioneer Primary School has created its own local curriculum with enterprise at the centre. The school farms its land and has allocated responsibility for a different part of the 'farm' to each year level. The various projects include looking after the organic vegetable gardens, the bees, the alpacas, the lavender field, and the maize and each year group needs to come up with products related to their project which they sell at Market Day at the end of the year. Having a whole school approach has allowed the teachers to integrate various subjects with enterprise. When talking about a particular activity she did with her class, one teacher commented on this integrated approach and its value:

[In one unit,] we had research, we had food tech, we had science, maths, history, we then [also] had all our school values... we had teamwork, problem-solving, respect, [and] resilience. (Paula)

The principal from Catalyst College also commented on the potential that enterprise provides in being able to teach in an interdisciplinary manner:

We need to be teaching those soft essential skills and I believe that this [enterprise] is a great vehicle for doing that, because it's so interdisciplinary. (Susan)

While implementing a contextual approach to enterprise can be liberating, the lack of clarity on how a school can do this, arising from the limited guidance *The New Zealand Curriculum* provides, could also hold schools back from embracing enterprise more. One principal described this issue as follows:

... how I read those [curriculum] statements are, [that] you can choose if you want to integrate it [enterprise] or not, and that's the consistency that we don't have... (Pia)

Another issue raised by participants was that of not having the right knowledge or experience themselves to implement enterprise. This was a concern particularly pointed out by teachers. The comments below highlight this:

It's not that they don't like it, I think they just don't know enough about it. (Carmen)

I'm quite glad that the board came in and said we can look at that side of it because I don't really know about branding. (Chris)

I don't really have much business sense, so that side of things is hard once it gets to the more technical business side of things, I kind of fall apart a little bit. (Chris)

This obstacle could impede the broader incorporation of enterprise in schools further. Interestingly, participants' discussions about enterprise within their learning environments suggested that the issue was not necessarily a lack of knowledge, but rather a perceived lack of knowledge, likely tied to systemic challenges surrounding the narrative about enterprise. This will be discussed under the next sub-theme. Related to this issue, participants also raised the obvious lack of professional development opportunities in this space.

Another aspect that contributed to the inconsistent implementation of enterprise in the participating schools relates to the resources schools use to do so. The most mentioned resources were those by the Young Enterprise Trust in New Zealand (YES). All participants were aware of the work of YES, but not all schools had actively engaged with their programmes. Various participants praised the programmes and support they have received from YES for older students. Schools that serve younger students either presumed, however, that the YES resources would not be relevant to their own context or reached this conclusion after reviewing the resources. Even schools that are currently running YES programmes were looking for more support and resources to implement enterprise within their school. One principal thought that the YES programme “has some really good parts to it, but it could go so much better, it could go so much further” (Susan).

Even though most schools were aware of the Te Kete Ipurangi (TKI) resources by the Ministry of Education (Ministry of Education, 2020), none of the participants knew that there were specific resources around enterprise available. Furthermore, a few schools tried the *Like a Boss*⁵ resource and even though aspects of it were helpful, none of the schools continued to use it. Participants mentioned that some parts such as the video content was

⁵ <https://www.likeaboss.org.nz/splash.html>

engaging, but other parts seemed too structured as has been highlighted in the below examples:

...they just didn't engage with it. I couldn't tell you why, apart from the longevity needed to keep going with it, I think they found the structure too restricting. (Carmen)

It was quite rules focused. It was just strict with stuff. (Ian)

Other resources mentioned were *Banque*⁶, *IDEO*⁷, the University of Auckland *Velocity* programme⁸, and the Paul Torrence *Future Problem Solving Program International*⁹. A teacher who had recently returned from working in Australia spoke about the greater variety of beneficial materials offered to schools there, including the *E-School Sharktank*¹⁰ programme. It became evident that schools, especially those catering to younger students, could derive additional benefits from supplementary resources and support for the effective implementation of enterprise.

Systemic Challenges

Aside from the inconsistent implementation of enterprise in schools, another group of challenges which were raised in the interviews can be summarised under systemic or macro challenges. These challenges are outside of an individual's control. The systemic challenges discussed by participants were that enterprise is hard to implement and measure, the negative connotations that exist in relation to enterprise, and getting buy-in from teachers.

Difficulty in Implementing and Measuring Enterprise. That enterprise is difficult to implement and measure, was a commonly occurring thread throughout all interviews. Teachers described the difficulty in measuring something that is not as easily quantifiable and, thus, as measurable as some other subjects:

...some of them [qualities] are not measurable in the strict kind of sense of how you would at a school. (Chris)

⁶ <https://banqer.co/nz>

⁷ <https://designthinking.ideo.com/resources>

⁸ <https://www.velocity.auckland.ac.nz/>

⁹ <https://www.fpsti.org/>

¹⁰ <https://www.adelaide.edu.au/echallenge/shark-tank-eschool>

At one school, participants used the term ‘too hard basket’ repeatedly to describe why enterprise might not be implemented more widely. One teacher described it as follows:

People can't put it into that nice tidy little box and therefore they don't really want to deal with it, and it becomes a slightly too hard basket for some people or some schools. (Chris)

In addition, the fact that enterprise is listed as an underlying principle as opposed to part of a learning area or even a key competency, confuses teachers and principals (Ministry of Education, 2007). This notion has been highlighted by the below comments:

A little bit awkward on how to actually implement them. So, I think yeah, if there is a downside to that it would be that it's probably kind of hidden and not at the forefront... (Chris)

It should be a core curriculum in my view. I think it needs to have a lot stronger focus than it is in schools. (Susan)

The position enterprise occupies within *The New Zealand Curriculum* also communicates the message that the Ministry of Education does not prioritise enterprise, which contributes to schools' confusion. Participants noted that the marginal position of enterprise within *The New Zealand Curriculum*, coupled with limited professional development and resources, portrays it as less significant compared to other subjects or skills:

I think if the Ministry of Education was to recognise the importance of enterprise and put some funding behind it, [it would accelerate our efforts in embracing enterprise]. (Susan)

[The fact that enterprise is listed as one of the eight underlying principles rather than being an independent strand], it doesn't feel like it's a priority, it feels like it's one of the add-ons, which I think should be flipped completely the other way because all those things should be the priority for education. (Carmen)

During interviews, teachers and principals were, however, unable to agree whether they want enterprise to be more prescribed or whether they prefer the freedom of the current vagueness in relation to implementation. As Chris commented, “sometimes if it's too prescriptive at the other end, that just kills a whole lot of creativity”. The underlying message this sends could be another

reason why schools are not embracing enterprise more widely. It must be noted that at the time of doing this research the 2007 version of *The New Zealand Curriculum* applied, but a curriculum wide review was underway which could lead to less focus on enterprise within the curriculum in the future¹¹. This topic will be considered in Chapter Five, the discussion.

The Negative Connotations Around Enterprise. In addition to enterprise being challenging to implement and measure, the negative effects of current enterprise narratives were also highlighted in interviews. Simon commented that there is a “narrative that entrepreneurs are just driven by profit”. While not necessarily always stated explicitly, this teacher’s view could be discerned in the responses of some other participants’ responses. For many, enterprise could be regarded as an ‘evil’ which fuels individualism and capitalism and, thus, misaligned with the liberal nature of teachers (Lackéus, 2018b). One principal echoed this sentiment:

Teachers are predominately liberals, they're not businesspeople. (Ian)

To counteract this narrative, schools are trying to emphasise that enterprise can be used to address social issues. They expose their students to social entrepreneurs and encourage them to tackle a social issue by, for example, linking with a UN Sustainable Development Goal (UN SDG)¹². Innovation Intermediate had a particular focus on the UN SDGs and students showcased their creativity and problem-solving abilities at the school’s Market Day. Students paired an idea or passion with something they cared about with products, for example, making sap that invites tui into gardens was linked to the 'Life on Land' goal, and reusable beeswax wraps that were linked to the 'Sustainable Consumption and Production' goal. These students expressed throughout our conversations how difficult, yet interesting and

¹¹ <https://education.govt.nz/our-work/information-releases/issue-specific-releases/national-curriculum-refresh/>

¹² <https://sdgs.un.org/goals>

satisfying, they found the entire process. One student talked specifically about his approach with the product he created:

And it was all mostly renewable. We didn't use plastic bags; we used paper bags because I don't want to just make the environment dead.

In its simplest form, this comment shows that enterprise can be a vehicle to educate young people about social and environmental issues and encourage them to come up with solutions to solve them.

The way society views failure has only served to reinforce the negative connotations associated with enterprise. According to Simon, society is "quite harsh on people who fail", as opposed to promoting making mistakes and learning from them. The notion of providing a safe space to practise and fail was also mentioned in this regard:

What kind of message is that sending to our young people? It's like you failed a couple of times, and you are done. You've got the whole country against you, and so if you transfer that to a business startup, it's like I want to start a business. I've failed. I'm probably going to think that I'm crap and no one believes in me, and I think it ties into the "Tall Poppy Syndrome"¹³. (Simon)

Innovation and enterprise and creating businesses, it's just a really powerful way for students to learn in a failsafe environment. (Ian)

It's okay if I don't get it right the first time. (Chris)

We didn't get here until we were 45, but if our kids can get there earlier and make those mistakes early and fail fast, then they'll be more successful at a younger age. (Carmen)

¹³ The 'tall poppy syndrome' is a concept describing the denigration of successful people are for being successful

Getting Buy-in From Teachers. These perceptions of enterprise could influence teachers' thinking, serving as deterrents to the broader adoption in schools of enterprise education. Unsurprisingly, the challenge of securing teacher buy-in emerged as another issue during the interviews. The following responses show that principals tend to find it difficult to get buy-in from their staff:

... when I pitched it with my staff that I thought could lead it, they just didn't, they just weren't interested. It needed someone that thought quite differently... (Simon)

...some of the teachers, they love the creative side of it, and the passion side of it, they're not necessarily into the more Market Day kind of side of it. (Carmen)

This is not untypical given the scepticism of many teachers towards enterprise as discussed in Chapter Two. One principal summarised it as follows:

Most primary school or intermediate schoolteachers are there because they love children, not business, so for them, it's not what they wanted to do... Enterprise and business kind of goes contrary to the majority of teachers' ethos so it's a bit of a tricky one to sell. (Ian)

This principal continued to talk about the importance of nurturing the value of having enterprise in the curriculum and helping staff see that the skills students learn when engaged in enterprise projects is transformational. Another principal related this issue to the specific context of their school by explaining that:

...primary teachers, we're really into collaboration and working together and we recognise the things we're not good at, but with secondary teachers their subject is always the most important. So, bringing that change into a secondary world is not easy. (Susan)

Seeing the value of enterprise also applies to new staff. As one of the teachers raised, the way enterprise is embraced at her school might be different to the learning environment new teachers are used. She referred to it as follows:

...getting the new teachers understanding the value of what you're doing and how you're doing it differently because not a lot of them would be used to that type of learning environment. (Paula)

Another principal highlighted the difficulty of finding staff who grasp the concept of enterprise and are willing to advocate for it in her school. This could suggest that teachers might be uncertain about how to implement enterprise, leading them to prioritise more familiar subject areas or teaching methods. A participating teacher also raised how teaching enterprise is often perceived to be more work, which could contribute to this issue further. This represents an additional challenge for schools trying to embrace enterprise and could be another area for future research.

Summary

Based on the interviews conducted, there are various challenges schools must navigate when embracing enterprise within their school. Many stem from the fact that enterprise is not defined clearly and, thus, often inconsistently implemented. Additionally, there are several systemic challenges, including the difficulty of implementing and measuring enterprise, the negative connotations associated with enterprise, and gaining teacher support.

Theme Three: Enterprise in the Context of '21st Century' Learning

As outlined in the previous theme, there seemed to be no agreement regarding what enterprise is, therefore, no school had a coherent picture of what to include as enterprise. In this confusion around definitions, another common theme amongst participants was the link of enterprise to future-focused education or 21st century skills.

Future-Focused Education

According to Bolstad (2011), there are three different ways of interpreting what future-focused education means: thinking about the future lives of students, thinking about the future of the education curriculum, and thinking about how we prepare young people to deal with 'future-focused' issues. In this research, participants appeared to have integrated both the initial definition, contemplating the future lives of students, and the final definition, considering how we equip young people to address 'future-focused' issues. Ensuring that our future generations are enabled to thrive in the future was a prominent sub-theme in conversations.

...especially the way the world's going and working, it's some of that flexibility and that problem-solving. (Carmen)

...the way the world is changing and the positions and the future of our young people, those skills around being able to problem-solve...to be able to work collaboratively with others, to be able to fail and learn through failure,...enterprise is all about that, it is teaching the design and process thinking and that can be applied in absolutely any part of life and any curriculum. (Susan)

Given that enterprise, as an essential 21st century skill, has been on the agenda of many governments and economic organisations (European Commission, 2019; World Economic Forum, 2009), it was not surprising that one teacher also referred to economic reports that mention the importance of enterprising skills:

Every report you look at the future of work and that kind of thing, regardless of where it's coming from is talking about digital skills, tech skills, entrepreneurial skills... (Simon)

A slightly more nuanced definition of enterprise is that of creating something of value for someone else (Bruyat & Julien, 2001). Even though this nuance was not mentioned by participating students, most comments from participating principals and teachers emphasised that there is a need to teach students that enterprise is not just about making money, but about creating something of value:

... trying to reframe it rather than [creating] just a product for commercialisation, is it actually something we need? What is missing in society?... It's not just about creating something to sell to make money, it's actually about filling a need, a social need, because part of our value system is community. (Carmen)

It's about putting in thought to produce something that's worthy, something that is going to be of use and that is going to benefit others and you make some money on it. (Paula)

The concept of social enterprises was stated by a few participants in this context. One principal mentioned that making young people aware of businesses whose reason for existence extends beyond simply making money, to investing into their community or into a social cause, can be surprising, but could be something more students could identify with (Carmen). The notion that young people associate more with businesses that exist for higher purposes,

rather than just for profit, was also echoed by another participant (Chris) who teaches at a school that has had several Alumni start social businesses. Furthermore, some students mentioned that doing something good for the school or for others makes them feel good in turn.

Adding a social purpose as an integral part of a business adds complexity and, hence, starting a social enterprise can be more challenging. Transferring this into an educational context, striking the right balance between challenging students and having unrealistic expectations, was raised by another participant when talking about how they encourage students to link their business ideas to the UN SDGs. He cautioned that at times educators might be expecting too much of their students:

Let's take the United Nations Sustainable Development Goals, [e.g.] you've got to solve poverty, and you got to use technology to do it...[But], they don't really understand the economics and everything that causes poverty. They can certainly come up with some great ideas...but often it's tough to put out those expectations on these things. (Simon)

Another participant noted that she saw “teaching on both sides” while discussing a social enterprise project that some previous students worked on. She observed that students working on the project which involved refugee women, not only learned how to start a social enterprise project, but the refugee women learned about New Zealand in the process. Learning was thus of mutual benefit. This idea relates to the Māori concept of tuakana-teina which is the notion that a less experienced learner (teina) is guided by a more knowledgeable, typically older expert (tuakana) (Ministry of Education, n.d.). The principal also highlighted how powerful this type of learning is and how infrequently it occurs in school.

Enterprise and its Link to Authentic Learning

Another type of learning that can be very powerful, as this research has shown, is that of ‘authentic learning’. The importance of creating authentic learning experiences for students is supported by a study by Langston (2020). According to Langston, engaging in authentic learning is claimed to enhance learners' self-efficacy by involving them actively in an authentic, industry-type environment. This engagement facilitates learners in becoming recognised members within

the relevant community of practice. Deeper analysis of the meanings of the terms enterprise and entrepreneurship in this study led all participants to mention examples that equate to 'authentic learning', even though they might not have used this particular phrase. For example:

What can I do which is actually a little bit more real world for these guys? (Chris)

The teaching pedagogy that we use for maths is Massey University's problem-solving type model. There are opportunities to integrate business or finance or innovation or enterprise into maths, and that's about real world problem-solving. Throughout everything they do, there are opportunities to bring in real world examples so that they can talk about them and solve them in their world, in their classroom world. (Ian)

But I think it's about giving opportunities...creating real life opportunities. ... The more authentic our learning can be, the more the kids can see [that] those skillsets they've learnt have a place there [in the real world] and the more they're going to get out of it. (Susan)

All participants mentioned the importance of making the learning *real* for students. For some of them, this meant having connections with industry as guest speakers or for site visits, for others it meant linking it to issues that students care about. All the participating schools planned a Market Day as a culminating learning opportunity. This aligns with research which suggests that for students to be more engaged and thus, to learn more deeply, there needs to be an actual outcome (Wiggins et al., 2005), in these instances, a Market Day when customers could purchase students' products or services.

Apart from one school, which did not have a Market Day in the year of data collection, all schools planned their Market Day for the end of the school year and gave the students at least one term to prepare. Pioneer Primary School, however, worked on it throughout the year, because the farmland needed to be maintained all year long. Students across all schools were given some guidelines regarding what they could or could not sell but were mostly left to choose what they would like to do. During the diamond ranking activity, students also reiterated that one of the aspects they liked most about Market Day was having a choice and being able to pursue their passions.

Apart from Pioneer Primary School, where each class had one dedicated resource (such as bees, alpacas, and vegetable gardens) to look after, each school got students to work alone or in groups. Many students chose something they liked doing, such as making jewellery, crocheting, or baking. Innovation Intermediate also asked their students to pick a UN SDG¹⁴ to align with. For example, a couple of students chose ‘life on land’ and looked at what this meant for them. They decided on making a special sap that attracts tūī¹⁵ into the garden and selling it in recycled water bottles.

Older students often developed products with their end customer in mind as well as aligning it with something they enjoy doing. An example was a group of secondary students who taught themselves how to make their own candles. Moreover, it was especially fascinating to see how some students extended the activity by, for example, taking pre-orders. During the diamond ranking, students shared their thoughts on having a Market Day as summarised below:

I feel like those are really fun. I like those.

A good opportunity for people to be entrepreneurs. And that was the main focus of Market Day and I feel like we did good about that.

Like if you don't focus on Market Day, like what's the point of doing it?

These comments further reiterate research findings regarding the importance of having an actual outcome to cement the learning (Wiggins et al., 2005). Furthermore, at each Market Day, students expressed their enjoyment and their satisfaction with being able to self-select their activities. But it was ‘not only fun’ as the students also shared the struggles they faced, such as communicating with each other, working together as a team, or getting it done on time. One student mentioned how physically challenging it was to make the 80 painted rocks he sold: “Yeah, it was really challenging. It really hurt making all of them, but I just like the feel of a challenge, you know?” A surprising insight was to find out that this particular student had a strategy around what to sell at Market Day. He came up with the idea after “watching a movie” as described below:

¹⁴ For more information on the UN SDG's visit <https://sdgs.un.org/goals>

¹⁵ The tūī is a medium-sized, boisterous, native New Zealand bird.

I was watching a movie and this guy was selling actual stones in the movie. I was like, oh, that's cool, I might do that.

It prompted him to test whether he could create and sell something he thought no one would buy. To everyone's surprise, he was the first student to sell out, despite having approximately 80 rocks. This is an example of how enterprise can enable young people to explore ideas and strategies and take risks within a 'safe-to-fail' environment.

Summary

The chapter has explored enterprise within the context of '21st century' skills. The concept of future-focused education as defined by Bolstad (2011) was discussed. The connection between enterprise and '21st-century' skills was accentuated, with participants advocating for a nuanced understanding beyond monetary aspects, emphasising the importance of enabling future generations to thrive. This chapter has also connected enterprise to authentic learning, stressing the significance of real-world experiences and outcomes. The importance of making learning real for students through industry connections, meaningful issues, and culminating events like Market Day was highlighted. The positive impact of such experiences on students' engagement and learning was noted, showcasing the role of enterprise in providing a 'safe-to-fail' environment for exploration and risk-taking. Despite not being a prominent theme in the literature review in Chapter Two, participants perceived the connection between enterprise and '21st-century' skills as significant. This suggests that further exploration is warranted to articulate the role of enterprise in fostering the development of '21st-century' skills.

Theme Four: Outcomes of Teaching Enterprise

This theme comprises outcomes that entrepreneurial education can yield, as indicated by insights gathered from interviews with the participating schools that incorporate enterprise. The sub-themes which will be illustrated below, include: Students developing their passions, increased engagement from students and teachers, and students acquiring 'hard' and 'soft' skills.

Students Finding and Pursuing Their Passion

Wagner and Compton (2012) have explored what successful technology and social entrepreneurs have in common and found that there seems to be a

linkage between play, passion, and purpose. The more opportunities these people had as children for wide exploration and tinkering, the more likely they were to find what they enjoy doing. Ultimately, this helped them to discover a higher purpose for themselves. The importance of passion was a recurrent theme of this research as well. During interviews, almost all participants made reference to how enterprise enables students to pursue their passion:

Give them permission to go and do something that they are really passionate about and enable them to take it as far as they can. (Chris)

It [enterprise] can provide children with knowledge that enthuses them. (Pia)

Not only does following one's passion spark natural curiosity and enthusiasm for the topic, but it also allows students to express themselves. A teacher summarised the connection as follows:

They've been able to express some of themselves. (Chris)

With an increasing focus on mental health and well-being, the Ministry of Education guides educators to develop learning programmes in which all learners can comprehend that self-expression is crucial for their personal and collective well-being and success (Ministry of Education, 2023). Expanding on this notion, participants also articulated how enterprise can assist students in discovering a passion and connecting it to a 'higher purpose' in their lives, as illustrated by the following comments:

...a large part of what we do through the programme is to try and help students understand and acknowledge the things they're passionate about, because we believe that when they are trying to work on problems that are part of their lived experience, they're going to find things they want to solve. (Simon)

In the time that they have on this planet, what's the impact that they can make? If they can find what they love doing, they'll make money around that. (Ian)

*You can light a fire, you really can, and you can see it go a lot further than what you ever *imagined*. (Susan)*

A few teachers mentioned 'breaking the cycle' in this context and referred to the powerful role enterprise can play in getting people out of poverty, whether by opening a new pathway for students, or more specifically by showing students that they can create their own livelihood. One principal even spoke about the 'life-changing' potential that enterprise can have on individuals, which he summarised as follows:

We had a team make the national finals and just seeing how that changed the trajectory of those students was just transformational. It was life changing. So, once you've seen how the power of success in a business type programme can be, you'll understand the importance of valuing it. (Ian)

He also covered the link to well-being, suggesting that it may be enhanced by following a passion. The connection between well-being and having an entrepreneurial attitude might be another topic for further research.

Not only did teachers and principals recognise a link between enterprise and passion, but most of the student participants ranked passion as part of their diamond. Most students ranked the smiley face very high, if not in the highest possible ranking because they believed that happiness was crucial. When asked to relate the smiley face to enterprise at their school, all of them connected being happy to the fact that they were able to choose something that they created and sold at Market Day. They were delighted to be able to pursue their passions and were relieved to be given permission to do so. When students talked about the smiley face and passion, they used very similar vocabulary and feelings to describe their relation to enterprise. A couple of the comments are below:

It's got to be your passion...

Passion is just like I want to sell them the cool stuff about science because it [my product] was actually all a science experiment...[and I love science and love sharing science with others].

Increased Engagement from Students and Teachers

Increased engagement is closely linked to students finding their passion. It has been demonstrated that being able to exercise choice leads to higher levels of intrinsic motivation (Donaldson et al., 2021) and that the more students are

engaged, the deeper the learning (Lackéus, 2018b). These research findings are consistent with the findings of this study. Several participants mentioned how students, especially boys and less academically inclined students, have been highly engaged when learning something through an enterprise lens. One teacher emphasised that she “could not think of any of her students that haven't enjoyed [these activities]”. One principal mentioned students being intrinsically motivated by enterprise activities. Participant responses suggested that deeper learning occurs and that students push themselves outside of their comfort zones:

They sat there and they [explained] the entire process of distilling, from the steam to the condensation to the by-product... nobody preloaded them to say that to me. (Pia)

Within herself I believe she felt better and more comfortable and so therefore if there was a *challenging* thing in another area, she was just a bit more willing to give it a crack. (Chris)

The students were animated and eager to share their experiences, whether during the diamond ranking or the Market Days. Some even made a comparison to other subjects or projects, rating the Market Day experience more highly. It would be interesting to explore whether students' engagement would change if the enterprise experience changed. Given all participating students in this study had a Market Day-related enterprise experience that might be viewed as a limited entrepreneurial education experience.

The positive effect on engagement not only related to students; increased engagement was also visible within the teaching community. All participants seemed very enthusiastic about the topic and more than happy to participate in this research. A few of them acknowledged that it was definitely ‘hard work’, but thoroughly rewarding. One teacher mentioned that “it’s great and it’s hard work, but well worth it for the students”.

Students Acquiring ‘Hard’ and ‘Soft’ Skills

Another outcome of embracing enterprise is the range of skills students can learn. This sub-theme outlines some of the actual ‘hard’ or technical skills as well as ‘soft’ skills which were mentioned during interviews. Most participants

mentioned hard skills, including organisational planning, marketing, advertising, SWOT analysis, finance, tax, social enterprise, and sustainability:

We ended up taking them through...a business proposal and then looking at the marketing...the organisational planning, all the way through to the finance, [and] the budgeting. (Carmen)

They learn about *tax*, they learn about profits, they learn about splitting profits evenly, they learn about competition, and they choose a charity to donate to. (Ian)

One teacher noted how enterprise incorporates elements from design thinking, lean startup methodology, and the exploration of business models (Simon). Some teachers also talked about ‘hands on skills’ such as hand sewing, bee keeping, and oil distilling. One teacher commented as follows:

...and we related that periodic table which we learnt about earlier on in the year when we were doing about copper and why our still is *made* out of copper and not aluminium or something. (Paula)

‘Soft skills’ that were mentioned by participating teachers and principals included problem solving, resourcefulness, collaboration, and teamwork. When students were asked what they thought they had learned, they listed a combination of ‘hard’ and ‘soft skills’ such as product pricing, logo development, teamwork, and resilience. Most students chose ‘problem solving’ and ‘teamwork’ as two of the words to rank on their diamond. When probed, some commented:

Yeah, teamwork’s really good [to prepare for Market Day]. Problem solving because if you have a problem, you can either cry about it or you *can* like solve it. I chose it [the word problem solving] because I had to do some [problem-solving] when working on my volcano kits.

I like solving problems. When I was at Market Day, I was like, okay, I have a problem, I have to solve it. I’ve run out of hot glue. I can’t find a pen. I did it with pencil at the beginning, but the pencil kept on rubbing off, so I had to go around the whole school trying to find a permanent marker.

All students also chose the word ‘confidence’ as one of their ranked words. One student commented that “it kind of grew my confidence. Yeah, I feel like I can do more after I did that”. These insights align with the comments by some

teachers who specifically emphasised the role enterprise plays in building confidence in students. One principal was surprised by how confidently some of her own students would navigate looking after the school bees:

A Year 3 child having that confidence and knowing everything about what *there* is to know about how much to feed the bees, when to feed them etc. (Pia)

The following comment demonstrates how enterprise not only increases students' confidence in the task or activity they are learning about, but also in other areas:

Just seeing her so alive with it was pretty awesome, and then [her *confidence*] just flowed into other areas. If it was maths, she'd just do it. I don't know whether it was inner confidence, or our relationship had grown...(Chris)

How enterprise builds confidence in students as described above links back to research on strength-based learning and growth mindset which suggests that children build confidence by focusing on their strengths and this confidence encourages them to try things that might not be a natural strength (Swartz et al., 2016). Furthermore, a study of the value of entrepreneurial education programmes (Jones et al., 2012) acknowledged the important role entrepreneurial education plays in building confidence—helpful when starting a business and, more generally, as a 21st-century skill. This could be another avenue for further research.

Summary

The interviews highlighted that there are a range of possible outcomes that can be achieved when teaching enterprise. The outcomes generated by the schools included in this research ranged from providing students with opportunities to identify their passions and a livelihood, which can lead to breaking the cycle of poverty, to increased engagement from students and teachers. It also involved teaching students the 'hard' skills of starting a business, including the marketing and financing of a product, as well as the 'soft' skills such as building confidence. These findings provide a platform for further research in this area and may act to inspire more schools and teachers to embrace enterprise within their schools.

Conclusion

To uncover how enterprise has been conceptualised and promoted within four New Zealand schools, this chapter has presented the key findings derived from the data collected through semi-structured interviews, document reviews, and a focus group, all of which were analysed thematically. The analysis revealed four primary themes: factors facilitating enterprise in schools, obstacles to the adoption of enterprise in schools, enterprise within the context of '21st century' skills, and the consequences of embracing enterprise in schools. These themes will form the basis of the discussion in the next chapter.

Chapter 5: Discussion

This chapter is a critical examination of the findings disclosed in the preceding chapter. As articulated in Chapter Three, the data analysis was grounded in a critical realist view and underpinned by a constructivist epistemological standpoint. The structure of the discussion chapter is organised around the central research questions and the primary themes identified in the Findings Chapter. At the core of this study lies the overarching research question:

“How is enterprise conceptualised and promoted in a New Zealand school context?”

It has the following sub questions:

- How do teachers and students experience enterprise in schools that encourage enterprise?
- How is enterprise understood, valued, and promoted by teachers in schools that embrace enterprise?
- What can be learned from schools that practise the concept of enterprise?

To answer these questions a case study approach was used which included four participating schools across New Zealand: a primary (Enterprise Explorers Elementary), an intermediate (Innovation Institute), a composite (Creative Minds Campus), and a Secondary School (Holistic Enterprise High). Participation in the study involved school principals from all four institutions and teachers from three of the four schools. Importantly, the student perspective was not overlooked. Students' voices resonated through their engagement in the diamond ranking activity, while casual conversations during each school's Market Day provided supplementary insights. The four main themes that were identified in the findings, and which will be discussed in this chapter, are: enablers of enterprise within schools, outcomes associated with embracing enterprise in schools, the challenges of embracing enterprise in schools, and enterprise within the context of '21st century' learning.

Reflexive thematic analysis was employed, focusing on theme development from qualitative data. A six-step process was followed. First, acquaintance with the dataset and assigning concise code labels to data segments. This merged

with listening to recorded reflections and field notes, reading transcripts, and highlighting patterns. Themes were then developed to encapsulate shared meanings in the data, with visual tools like mind maps aiding in their formation. In the fourth step, data was imported into NVivo to support the creation of thematic maps and rearranging data segments. Themes were refined and named in the fifth step after finalising codes, child codes, and themes through a third reading of the data. Researcher reflexivity played a crucial role, as it was important to acknowledge the possibility of researcher subjectivity. Throughout the process, therefore, a reflexive journal was maintained, and supervision feedback supported the process. Utilising this framework, the ensuing discussion traverses the nuances and intricacies that emerged within the educational landscape, painting a holistic picture of the role of enterprise within New Zealand schools.

Enablers of Enterprise Within Schools

Understanding the conditions that allowed schools to embrace enterprise was critical to answer the research questions. The participants' impressions of enterprise and how it appears in their learning environments were the main topics of the interview questions. Two sub-themes developed as a result: how enterprising teachers and principals behaved and the degree of ecosystem support for the teacher adopting enterprise. These sub-themes were further expanded on by investigating the role of Initial Teacher Education and principals as champions for entrepreneurial education.

Enterprising Behaviour Among Principals and Teachers

One of the conditions that facilitated enterprise within schools identified in this research is the extent to which principals and teachers displayed enterprising behaviour themselves. Principals and teachers often had to pitch ideas to various stakeholders or find creative ways to receive additional funding. They also displayed disciplines, such as problem solving or critical thinking, and entrepreneurial traits, such as being adaptable and perseverant. As discussed in the previous chapter, according to the literature, effective teaching of entrepreneurial education requires teachers to possess confidence (Benade, 2012; Hardie et al., 2020; Thomassen et al., 2019), practical experience, and knowledge in this field (Benade, 2012; Hardie et al., 2020; Seikkula-Leino,

2018). Haneberg et al. (2019) asserted “that the only way to learn entrepreneurship is through one’s own personal experience” (p. 2). Zhang (2020) contended that teachers should embody an entrepreneurial mindset to effectively instruct entrepreneurship. This aligns with the views of Tican (2019) who summarised these skills and traits as the ‘entrepreneurial spirit’. Tican stated that teachers must be able to demonstrate the talents they intend to impart on students, particularly when it comes to 21st-century competencies. According to Tican, they also need to possess the spirit themselves in order to impart an entrepreneurial mindset on students. He further stated that an entrepreneurial teacher must be:

passionate, positive in attitudes, self-confident, rule-breaking, action-oriented, inspiring, with a good vision, thinking focused on creative solutions, open-minded, good communicator, responsible and able to sell ideas (p. 592).

However, despite the clear presence of enterprising behaviour among participants of this study, those teachers and principals did not refer to themselves as entrepreneurs or as being enterprising. This could be linked to a lack of confidence in one’s abilities. The need to build one’s confidence before teaching entrepreneurial education was brought up by Hardie et al. (2020). Especially since teachers may “have stronger content and pedagogical knowledge in traditional curriculum areas” (p.13). Another reason could be that the term "entrepreneur" may be very discouraging. This is not surprising given that research in this field and anecdotal evidence suggests that young people, especially, don’t identify with the term (Simon, 2017).

Teacher’s Role Modelling Entrepreneurial Qualities

A recent study by Chaker and Jarraya (2021) found that teachers with entrepreneurial qualities or characteristics tend to influence and inspire their students to become more entrepreneurial as well. This in turn confirms findings by Ratten and Usmanij (2020), that teachers can motivate others to become entrepreneurs. This implies that the behaviour, mindset, or teaching style of the teacher can have a significant impact on the development of entrepreneurial skills and attitudes in students. This research suggests a positive relationship between the entrepreneurial orientation of teachers and the entrepreneurial development of their students. One participating teacher exemplified this spirit.

He went so far as to lead by example and developed an app himself. Throughout the interview, it became clear that his reasons were two-fold: to build his confidence and skills and be an inspirational role-model. He said to his students: "If I can do this, then other people can do it as well". Jones and Iredale (2010) emphasised how important it is for teachers to be confident in their abilities. Participants expressed concerns about not having the appropriate knowledge or experience in the domain of enterprise education. For example, one participant stated that, "I'm quite glad that the board came in and said we can look at that side of it because I don't really know about branding." Interestingly, this perceived lack of knowledge did not always reflect an actual deficiency, but rather an apprehension arising from the prevailing narrative surrounding enterprise. The negative connotations around enterprise will be discussed further below.

Although recognising the challenges, participants found teaching enterprise to be highly rewarding. One teacher articulated that, despite the demanding nature of teaching enterprise, the effort invested was justified by the significant benefits for the students. According to the research of Lee et al. (2015), this role-modelling is another crucial component to fostering enterprise within a school. She speaks of the advantageous effects that such role-modelling can have on other educators, as opposed to students, demonstrating to them various implementation strategies, while also highlighting the advantageous effects that enterprise can have on students. Consequently, Initial Teacher Education (ITE) becomes pivotal in providing opportunities for teachers to explore various pedagogical approaches within rich contexts.

The Role of Initial Teacher Education

In order to enable entrepreneurial education, ITE has an important role to play. Nevertheless, Seikkula-Leino (2018) emphasised that few countries adequately incorporate entrepreneurial education into their ITE or omit it altogether. He advocated for the inclusion of entrepreneurial education in teacher education, a perspective in alignment with earlier research in this domain (Akyürek & Şahin, 2013). This emphasises the necessity for reforms in teacher education programmes to equip educators with the skills and mindsets required for effective entrepreneurial education. A recent study by (Keyhani & Kim, 2020) examined insights from 'teacher entrepreneurs' offering potential lessons that

could be valuable for incorporating relevant and evidence-based enhancements into ITE.

The study by Mahmood et al. (2021) highlighted the crucial role of educators and entrepreneurial leadership in the effectiveness of entrepreneurial education. It emphasised that the competences of these educators play a pivotal role in ensuring the successful delivery and implementation of entrepreneurial education programmes in Higher Education Institutions. To maximise the positive impact on students' learning experiences, it is essential for educators to continually enhance their competencies in teaching and fostering enterprise. The need for ongoing competency and professional development was also raised by participants of this research, alongside the absence of professional development opportunities to address these needs.

Principals as Champions for Entrepreneurial Education

From a business perspective, effective leadership significantly influences organisational performance and advancement (Lee et al., 2022). Various forms of leadership exist, and concerning this study, a central theme revolved around the crucial role of principals as explicit champions of enterprise, leading the school's efforts in this domain. Establishing enterprise requires a principal who is committed to, enthusiastic about, and advocates for enterprise within the school community. This observation resonates with prior research findings (Roberts et al., 2008; Timperley et al., 2014). Furthermore, when implementing the Education 4 Enterprise Cluster initiative in New Zealand, leadership was considered pivotal in the success of the project (Roberts et al., 2008).

Additionally, the Ministry of Education also emphasised the importance of teachers feeling supported by school leadership, systems, and structures, both in verbal assurances and practical support. Teachers participating in this research seemed supported, excited, and fulfilled when talking about enterprise within their schools. Their enthusiasm for their work was infectious at times. This dedication to one's work can, in turn, contribute significantly to educators' well-being, as emphasised by Cherkowski et al. (2020).

Furthermore, the Ministry of Education highlighted the necessity for leaders to spearhead this approach, collaborate with staff, set achievement goals, and initiate a transformative shift in teaching practices (Roberts et al., 2008).

Principals interviewed for this study seemed to portray these in varying degrees. For instance, the principal of Pioneer Primary School emphasised being the driving force behind enterprise initiatives. Additionally, a teacher from a different school highlighted his principal's innovative and future-focused approach, providing ample opportunities for entrepreneurial education programme development (Simon).

Principals allotted specific time for the planning of entrepreneurial education activities, dedicated a whole term towards enterprise, and provided staff with diverse channels for collaborative discussions on the most effective implementation of these activities.

Supporting Ecosystem

Another condition that allowed the participating schools to embrace enterprise was the significance of the existence (or lack) of a supportive ecosystem around the teachers who lead enterprise. The ideal ecosystem combines capable leadership, encouraging industry partners, and a school community that supports entrepreneurial education. Students can develop their confidence and make better decisions about their future careers by developing relationships with community and industry partners (Lee et al., 2015). Educational institutions highly appreciate this support, particularly recognising that opting for the less conventional path is frequently more challenging, but ultimately more gratifying. This also applies to adopting enterprise in a classroom setting. As shown by this research, where various participants stated a need for greater professional development and resources. These aspects will be discussed under the challenges section below.

Having a supportive ecosystem around the teacher implementing enterprise, not only benefits the teacher but represents more of a symbiotic relationship. As highlighted in the previous chapter, families (whānau) and caregivers have the opportunity to become more engaged in their child's education, while industry partners are enthusiastic about giving back and motivating the next generation. However, not all schools benefit equally from such support. In this study, support from parents ranged from active involvement in students' projects, for events like Market Day, to parents volunteering on judging panels. Teachers and principals highly valued this support. For instance, teachers appreciated the creative solutions offered by an organisation funded by entrepreneurial parents,

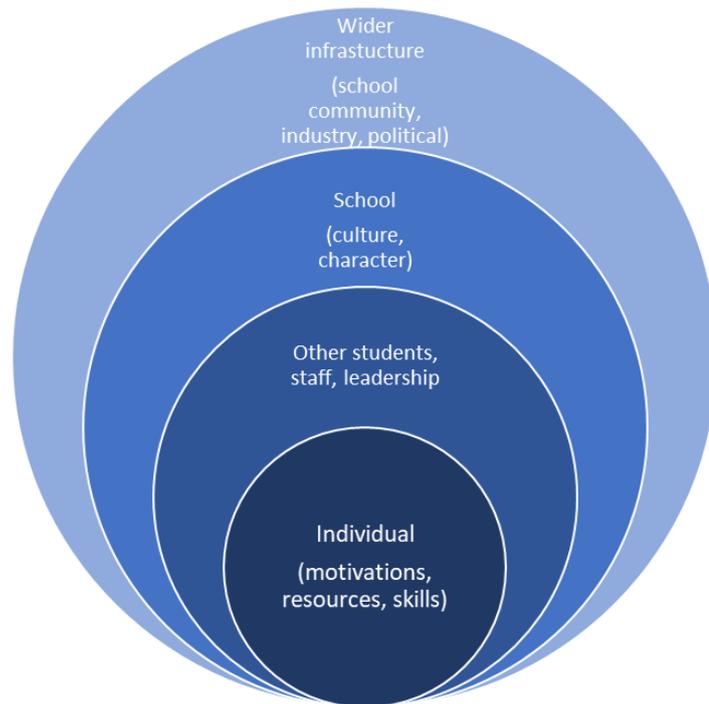
and the community's enthusiasm for enterprise was seen as valuable due to its creativity and realism, with remarkable individuals contributing positively to the educational environment.

At times, industry partners and schools might have conflicting interests which can complicate this symbiotic relationship. It did not come up as part of this research. However, it has been mentioned in prior research of entrepreneurial programmes at tertiary institutions where industry partners expected new ventures as an outcome and universities emphasised high academic performance (Haneberg et al., 2019).

The conceptual framework representing the support system introduced in the previous chapter (Figure 4.1) is comparable to the four contextual layers that should be considered when putting social programmes into practice, as introduced by Brentnall (2020). These layers can be applied to entrepreneurial education programmes within schools. For an educational programme to bring about a change in behaviour, it is essential to fulfil the following requirements. First, it needs to take into consideration the individual abilities of students, including their motivations, available resources, and reasoning skills. Second, it is important to consider the interpersonal relationships between the students, programme staff, and other individuals involved. Third, the larger educational setting, including its culture and character, must be taken into account. And fourth, a larger infrastructural system that includes political support, sufficient funding, and public and community support must also be in place. Brentnall (2020) saw these complex layers as being connected and combining to provide the context which affects change. Combining the two frameworks as depicted in Figure 5.1 below might be a helpful basis for educators to use to map out their ecosystem.

Figure 5.1

Combined Framework to Map Out the School Ecosystem.



When considering the enablers discussed above, similarities to the work of Lee et al. (2015) become apparent. Lee et al offer nine aspects that should be in place when implementing a successful enterprise programme. These include:

(1) senior managements' commitment and passion for enterprise; (2) collaborative support of senior management; (3) mentoring by top management; (4) teacher buy-in; (5) [being open to] change; (6) school sharing philosophy; (7) [pro-active] communication; (8) cross-curriculum approach (integrated learning); and (9) development and maintenance of partnerships. (Lee et al., 2015, p. 798)

Alongside points 1–4 (support and commitment from leadership) and point 9 (industry support) which have been discussed as part of this section, point 8 (taking a cross-curriculum approach) will be raised under the challenges section further below.

Outcomes of Embracing Enterprise in Schools

The outcomes achieved by schools that support enterprise was another theme to emerge from this research. The participating schools had three main outcomes: students discovering their passion, teachers and students being more engaged, and students acquiring a variety of skills.

Students Finding and Pursuing Their Passion

The value of passion was repeatedly mentioned by research participants. Nearly all of the participants emphasised how enterprise enables students to help pursue their passions, aligning with report findings from the Regional Education for Enterprise Clusters Initiative mentioned in Chapter Two (Roberts et al., 2008). These findings also match insights gained through a private opinion quantitative survey aimed to uncover the priorities of the American public. The survey found that individualised education, that caters to the specific needs and passions of individual students, is a prevalent theme among the general population's top personal priorities (Populace Think Tank, 2022). Additionally, most students who took part in the diamond ranking activity rated passion highly, and educators also mentioned how motivated children were because of pursuing their passions. Wagner and Compton (2012), explored a connection between play, passion, and purpose and found that successful entrepreneurs, who as young people had opportunities to explore and experiment with their passion, were more likely in finding themselves a higher purpose in life.

While this study reveals a connection between entrepreneurial education and passion, there appears to be a lack of literature exploring this intersection. Only recently, McLarty et al. (2022) advocated for further exploration of the relationship between entrepreneurial education and other entrepreneurial concepts, including self-efficacy, passion, and competency. Being passionate about something is linked to increased engagement (Hardie et al., 2020; Lackéus, 2018b) which relates to the next sub-theme.

Increased Engagement of Students

Many participants in the study noted the significantly increased engagement of students when they were involved in enterprising activities, especially among boys and those who may not excel academically. These findings are consistent with existing literature in the field, which consistently demonstrates that granting students the autonomy to choose their activities significantly enhances intrinsic motivation (Donaldson et al., 2021). Furthermore, studies have indicated that deeper learning occurs when students are more engaged. This not only fosters entrepreneurial skills, but also enhances their subject-specific competencies (Lackéus, 2018b; Lackéus & Sävetun, 2020).

The link between enhancing subject-specific skills and cultivating well-rounded citizens is indeed a vital one. By engaging in entrepreneurial activities and developing entrepreneurial skills, students not only gain economic value, but also acquire a broader set of competencies. These competencies extend beyond the realm of entrepreneurship and are essential for navigating the complexities of the modern world. They encompass problem-solving, critical thinking, creativity, adaptability, and effective communication-skills that are highly valued in a wide range of academic, professional, and personal pursuits. Thus, teaching entrepreneurial skills and fostering an entrepreneurial mindset not only contributes to economic development, but also plays a pivotal role in nurturing well-rounded citizens equipped to meet the challenges of an ever-evolving society (Hardie et al., 2020; Jones et al., 2014).

Lackéus and Sävetun (2020) highlighted the significance of effective teaching practices in determining the degree to which enterprise education enhances student engagement, perceived relevance, and deep learning. Thus, it is imperative that teachers are equipped with appropriate professional development and resources. These aspects will be further examined under the challenges section below.

Students Acquiring ‘Hard’ and ‘Soft’ Skills

The scope of competencies that students can develop through exposure to entrepreneurial education is extensive. Competency, as defined by Cambridge University researchers (Vitello et al., 2021), involves the ability to integrate and apply contextually-appropriate knowledge, skills, and psychosocial factors (such as beliefs, attitudes, values, and motivations) to consistently excel within a specific domain. Therefore, to achieve competence in a subject, students need a blend of acquirable knowledge and teachable cognitive and non-cognitive skills. For a more comprehensive understanding of these skills, clear definitions are crucial.

However, even among researchers, there can be disagreement regarding whether certain skills, such as problem-solving, should be classified as cognitive or non-cognitive (Rodriguez & Lieber, 2020; Van Gelderen, 2022; Yan et al., 2018). It is important to note that cognitive and non-cognitive skills are often interrelated (Rodriguez & Lieber, 2020). Non-cognitive skills are typically

characterised as personality traits or patterns of thought, emotions, and actions, with the specific skills varying depending on the subject of study (Bjorklund-Young, 2016). Within the field of education, these skills often include resilience, self-discipline, teamwork, creativity, motivation, or empathy (Yan et al., 2018), whereas cognitive skills are typically defined as problem-solving, critical thinking, perception, and memory (Van Gelderen, 2022).

In a broader context, outside of academia, cognitive and non-cognitive skills are often referred to as 'hard' and 'soft' skills. 'Hard' skills are competencies that can be taught and are typically acquired through self-study, work experience, formal education, or specific training programmes. These skills are often industry-specific and can vary widely from one job to another (Yan et al., 2018). In the realm of cognitive skills, there are industry-specific competencies, including entrepreneurial skills relevant to starting and managing a business (Baggen et al., 2021). Research participants in this study highlighted activities related to business initiation and management, such as organisational planning, marketing, advertising, SWOT analysis, finance, taxation, social enterprise, and sustainability. Some teachers mentioned activities more associated with innovation, such as design thinking and exploring business models. These activities align with the concept of 'hard' skills.

The true value of entrepreneurial education lies in its potential to impart a comprehensive set of non-cognitive skills, such as perseverance and commitment (Lackéus & Sävetun, 2020; Pablo et al., 2019). Consequently, entrepreneurial education becomes relevant to all students and all walks of life. Participants in this study confirmed how students demonstrated strong commitment and perseverance when preparing for market day, showcasing these non-cognitive competencies.

Beyond immediate outcomes, entrepreneurial education can foster a broader range of competencies crucial for students' personal and professional development. Educators in this study emphasised the importance of 'soft' or non-cognitive skills in entrepreneurial education, such as creativity, resourcefulness, collaboration, and teamwork. Exposure to entrepreneurial education is believed to cultivate non-cognitive skills, as highlighted by researchers like Resnick (2014) and Yan et al. (2018). Resnick argued that

individuals who can think and act creatively will be indispensable in an ever-evolving world, underlining the growing importance of non-cognitive skills in the future. The value of soft skills is increasingly recognised, with some arguing that non-cognitive skills will be vital for future labour market outcomes (Huber et al., 2014). This topic will be explored in greater detail in the section addressing the definitional challenges of enterprise and its association with 21st-century skills below.

It was interesting to see that most students who participated in the diamond ranking activity chose the words 'problem solving', 'teamwork' and 'confidence' as depicted Figure 5.2-Figure 5.4 below.

The way in which enterprise fosters confidence in students is related to research on growth mindset and strength-based learning, which contends that children develop confidence by focusing on their strengths and that this confidence motivates them to try things that may not come naturally to them (Swartz et al., 2016).

Figure 5.2

Diamond Ranking – Harry

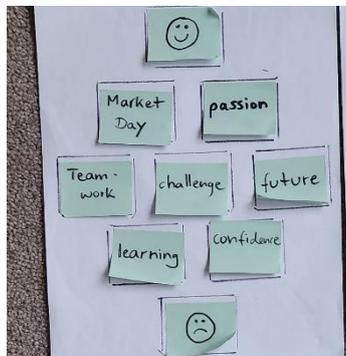


Figure 5.3

Diamond Ranking – Tim

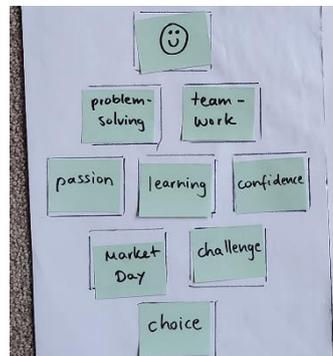


Figure 5.4

Diamond Ranking – Eva



Note. The pictures showcase the finished ranking activity by three of the students who participated in the focus group.

The Challenges of Embracing Enterprise in Schools

During the interviews, participants were directed to elaborate on the obstacles encountered while integrating entrepreneurial education into their respective school environments. Given the limited uptake of enterprise within New Zealand schools, it was anticipated that this theme would hold particular significance, as those who embrace it would likely encounter diverse challenges. However, overall, participants talked more about the benefits and, at times, even ‘got lost’ expanding on the beneficial experiences they encountered. This could be due to the fact that all participants were representatives of extreme cases, examples of schools that practice enterprise, and hence, one would expect them to be more positively inclined towards enterprise. Furthermore, courtesy¹⁶ or interviewer biases¹⁷ might have occurred, meaning that they wanted to give answers that might be expected to satisfy the researcher.

Comparing challenges that were mentioned with existing research on implementing entrepreneurial education reveals that similar challenges are widespread beyond the borders of New Zealand. According to Lackéus and Sävetun (2020), several common hurdles in implementing entrepreneurial education include resource scarcity, teachers' anti-commercial attitudes, inflexible educational structures, challenges in assessment, and a lack of clear definitions concerning what constitutes ‘entrepreneurial’ in the context of education. Consequently, the theme of challenges encompasses three sub-themes: defining enterprise, inconsistent implementation of enterprise, and systemic barriers that prevent a wider uptake. Each of these sub-themes will be explored in detail below.

Defining Enterprise

Enterprise definition is undoubtedly a difficult task. This is understandable considering that scholars have yet to agree on a common definition (Arruti & Paños-Castro, 2020; Langston, 2020). Researchers widely acknowledge the

¹⁶ Courtesy bias stems from a reluctance to give negative feedback, so as to be polite to the person asking the question. <https://www.scribbr.com/category/research-bias/>

¹⁷ Interviewer bias arises from the researcher conducting the study, influenced by their questioning style, reactions, or personal characteristics like gender, ethnicity, or social class. <https://www.scribbr.com/category/research-bias/>

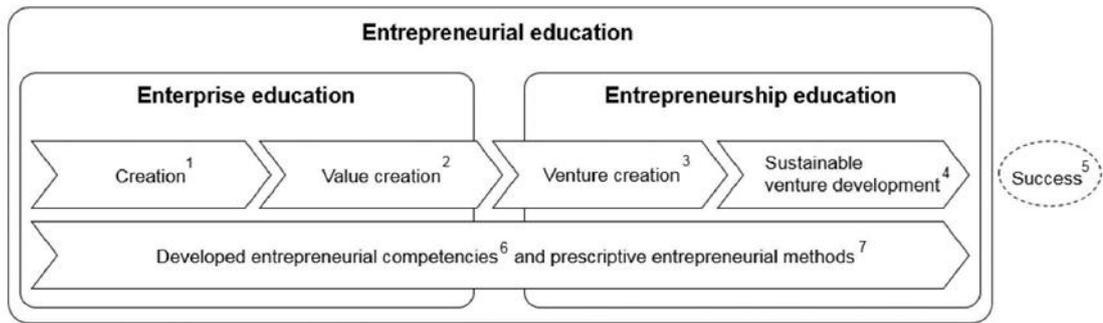
evolving definition of enterprise, which encompasses both a narrow perspective focused on starting a business and a broader view centred on adopting an enterprising mindset. Furthermore, it now incorporates creating something of value (Lackéus, 2018b). Participants in this study have mentioned opportunity identification as well as the terms mentioned above. In addition, most participants also related the pedagogical concepts of authentic and future-focused learning to these terms which will be discussed further below.

The challenge with many existing definitions lies in their tendency to present dichotomised solutions, leading academics and practitioners to oversimplify the complexities of the concept to rigid either/or frameworks or classifications. Disputes have arisen regarding the usage of the terms 'enterprise' or 'entrepreneurship', further exacerbating confusion, especially when different countries adopt different terminology. However, Lackéus's (2018a) introduction of the progression model for entrepreneurial education has proven to be a significant breakthrough. This model adeptly incorporates the definitional differences, providing a coherent and sensible framework as shown in Figure 5.5 below.

Figure 5.5 presents a progression model consisting of four definitional perspectives, describing entrepreneurial education as a process, beginning with creation, followed by value creation, leading to venture creation and venture development, occasionally resulting in successful outcomes. The first two perspectives, 'opportunity identification or creation' and 'new value creation' align with a broader focus on enterprise education. They do not emphasise venture creation or development, making them suitable for placement within the enterprise education domain in the framework. Conversely, 'venture creation' and 'sustainable venture development' are associated with the narrow focus of entrepreneurship education, warranting their placement within this segment of the framework.

Figure 5.5

Lackéus's Progression Framework for Entrepreneurial Education



Thus, the border between enterprise and entrepreneurship education coincides with the incorporation event when a value creation activity transforms into a venture. The entrepreneurial education initiatives undertaken by the four participating schools in this research can all be categorised under the second perspective of 'new value creation'. Additionally, some of these initiatives extend beyond this perspective, crossing into the domain of 'venture creation'.

Three other definitional perspectives, 'entrepreneurial success', 'entrepreneurial competencies', and 'entrepreneurial methods', do not form part of the progression model. 'Entrepreneurial success' is situated outside the educational model in Figure 5.5, illustrating that entrepreneurial education does not primarily concentrate on the traits-based approach. The perspective that successful entrepreneurs possess innate traits not influenced by education diminishes its relevance to entrepreneurial education.

Lastly, the sixth and seventh definitional perspectives, 'entrepreneurial competencies' and 'entrepreneurial methods', intersect both enterprise and entrepreneurship education in Figure 5.5. All forms of entrepreneurial education represented in Figure 5.5 are presumed to contribute to the development of diverse entrepreneurial competencies (either broad or narrow) and employ different entrepreneurial methods. This framework was chosen for this research as it seems to be comprehensive and reflective of the complex nature of entrepreneurial education. Addressing definitional challenges by amalgamating various existing terms related to enterprise and entrepreneurship education into a continuum that considers previous definitions is a strategic approach. This approach facilitates easier adoption and enables practitioners and academics to

shift their focus from definitional issues to enhancing the impact of entrepreneurial education. Usually, education practice precedes theory (Ratten & Usmanij, 2020), but over a decade after a New Zealand study called for clearer definitions of enterprise (Cardow & Kirkley, 2011), we still do not seem to be any closer to overcoming the definitional confusion.

Negative Connotations Associated With Entrepreneurial Education. The interviews highlighted an additional challenge related to the negative narrative surrounding enterprise education. One teacher mentioned that there is a prevailing belief that entrepreneurs are solely driven by profit. This perspective was indirectly echoed in some other participants' responses. For many, enterprise is viewed as promoting individualism and capitalism, which may clash with the liberal values often held by educators (Lackéus, 2018b). In response to this narrative, schools are making efforts to shift the perception of enterprise by emphasising its potential for addressing social issues (Saraiva & Paiva, 2020), as highlighted by the findings of this research. Schools expose students to social entrepreneurs and encourage them to tackle societal problems, such as linking their initiatives to UN SDGs. This approach aims to present enterprise as a tool for positive social impact, rather than being solely profit-driven.

Even though it did not come up as part of this research, one drawback of entrepreneurial education can be that it promotes competitive behaviour, as outlined by Brentnall (2020). She argued that most literature takes for granted the competitive nature of enterprise and, as a result, many entrepreneurial programmes teach competitive strategies around how to be first to market or fend off rivals. Furthermore, activities such as business idea competitions are often a corner stone of entrepreneurial education. Brentnall's concern is that students may be too focused on having the 'best idea' or 'winning', so that the learning journey becomes secondary. She calls for a "shift from outcomes toward process" (Brentnall, 2020, p. 366) regarding student assessment. She makes some practical recommendations for educators designing entrepreneurial programmes, such as asking judges to consider the various contexts and starting points of teams and individuals to promote more inclusive outcomes or refocusing support on teams with fewer resources.

In this regard, entrepreneurial education is also criticised for reinforcing disparate starting situations rather than working to make them more equitable (Brandle & Kuckertz, 2019). Davies (2014) noted that very unequal outcomes are not surprising in a society that promotes and fosters 'competitiveness', whether in sport, business, politics, or education. The only potential unintended consequence of entrepreneurial education mentioned in Chapter Two, which was raised by participants, was that of how we deal with failure. One participant pointed out how society's perception of failure has contributed to the persistent negative connotations linked with enterprise. The concept of establishing a safe space for practice and failure was also highlighted in this context. The absence of unintended consequences raised by research participants might be because all participants were from schools actively practicing enterprise, indicating a positive inclination toward it, or because framing bias¹⁸ played a role.

Inconsistent Implementation of Enterprise in Schools

The lack of a well-defined definition of enterprise contributes to significant variations in its implementation within schools. This research revealed that participating schools exhibited diverse approaches to implementing enterprise, heavily influenced by their specific contexts, making consistency challenging to attain. As Thomassen et al. (2019) highlighted, "Context shapes understanding and influences learning" (p. 863). In practice-led disciplines, particularly, context is foundational to learning. Therefore, when designing entrepreneurial education, specific aspects of the context must be taken into consideration. Many interview participants highlighted a lack of support and resources. Consequently, each school has designed enterprise learning experiences based on its context, placing a significant burden on individual schools.

To assist educators Thomassen et al. (2019) presented a framework for crafting context-specific entrepreneurial education. Their study explores the prevailing entrepreneurial education literature with an emphasis on context treatment. Context is pivotal in moulding understanding and influencing the learning process. Through an analysis of entrepreneurial education at three distinct levels (micro, meso, and macro) and a focus on four fundamental questions (who, what, where, and when), the research by Thomassen provides educators

¹⁸ <https://www.scribbr.com/category/research-bias/>

with a valuable viewpoint on how context can both influence and guide the development of educational programmes.

Resources Utilised to Implement Enterprise in Schools. The inconsistent implementation of enterprise in the participating schools can also be attributed to the resources utilised for this purpose as highlighted by this research. The Young Enterprise Trust in New Zealand (YES) was the most mentioned resource, praised for its support for older students. However, some schools with younger students either presumed that YES resources were irrelevant to their context or found them unsuitable after review. Even schools currently running YES programmes expressed the need for more support and resources to further enhance enterprise education. Although most schools were aware of the Te Kete Ipurangi (TKI) resources by the Ministry of Education (Ministry of Education, 2020), none knew about specific resources related to enterprise. Further investigation is needed to determine if educators are simply unaware of the existence of the TKI resources or if the resources lack purpose or usability. In addition to the YES resources, some schools tried the Like a Boss¹⁹ resource, finding parts of it helpful, but ultimately discontinuing its use due to perceived restrictions. Other mentioned resources included Banqer²⁰, IDEO²¹, the University of Auckland Velocity programme²², and the Paul Torrence Future Problem Solving Program International²³. While using different resources for different contexts is generally sensible, in this case, the utilisation of resources appeared ad hoc and highly fragmented.

Notably, there was consensus that schools, particularly those with younger students, could benefit from additional resources and support to effectively implement enterprise education. The need for such resources and assistance is evident, aligning with the findings from previous studies (Lackéus & Sävetun, 2020). A potential solution could involve curating a selection of resources for educators to choose from. This approach could provide consistency across

¹⁹ <https://www.likeaboss.org.nz/splash.html>

²⁰ <https://banqer.co/nz>

²¹ <https://designthinking.ideo.com/resources>

²² <https://www.velocity.auckland.ac.nz/>

²³ <https://www.fpspi.org/>

implementation and, more importantly, simplify the process for educators to implement entrepreneurial education programmes.

Systemic Challenges

In addition to the issue of inconsistent implementation of enterprise in schools, interviews revealed a distinct set of challenges falling under the category of systemic or macro challenges. These challenges lie beyond the control of individuals. Participants discussed three primary systemic challenges:

*implementation and assessment difficulties, negative connotations associated with entrepreneurial education, and the challenge of gaining buy-in from teachers.

Implementation and Assessment Difficulties. The challenge of the implementation and assessment of enterprise emerged as a recurring theme in all the interviews. Teachers often find it challenging to quantify and measure entrepreneurial education, which does not lend itself to the same straight forward metrics as many other subjects. This complexity adds a layer of intricacy to the endeavour of teaching entrepreneurial education. In a society that places significant emphasis on assessment, the challenge of measuring and assessing enterprise has been a subject of concern for academics (Lackéus & Sävetun, 2020; Langston, 2020). There is a consensus that entrepreneurial education requires unconventional assessment methods (Langston, 2020), a task that can be particularly demanding for educators. This could be another reason why it can be hard to get buy-in from teachers.

Getting Buy-in From Teachers. The potential link educators draw between enterprise education and the promotion of individualism and capitalism can also significantly hinder the process of getting teacher buy-in for the concept. The participating principals emphasised the significance of nurturing the value of enterprise in the curriculum and helping staff recognise the transformative nature of the skills students acquire through engaging in enterprise projects. One principal connected this issue to the specific context of their school, highlighting the challenge of introducing change in a secondary education setting in which subject priorities often prevail.

In contrast to the findings of this study, which indicated that principals found it difficult to win over teachers, O'Brien and Murray (2015) observed that teachers

appear to be more receptive to novel approaches to instruction. Particularly after trying out one unconventional teaching method, educators are frequently more willing to attempt others. Langlois (2020) made an interesting discovery in his research looking at the impact of The School Enterprise Challenge on students in developing nations. In countries where teachers only receive initial training, but not necessarily ongoing training, he found that when teachers realised the value their students received from a more experiential programme, such as The School Enterprise Challenge, they started changing their teaching pedagogy to provide more independent learning opportunities in general.

Embracing the value of enterprise also extends to new staff members. As one teacher noted, the way enterprise is embraced at her school may differ from what new teachers are accustomed to in their previous learning environments. This shows the importance of effectively communicating the benefits of enterprise education to both existing and new staff members in order to foster support and engagement.

The tensions between business and education, resulting in uncertainty surrounding the concept of enterprise, are the underlying factors behind the negative connotations and challenges in gaining teacher buy-in. As outlined earlier, these tensions stem from the perceived conflict between the profit-driven nature of business and the broader goals of education, which prioritise holistic development and societal well-being. Authors, such as Brentnall (2020) and Leffler et al. (2010) have discussed the tension between using the education system as a political instrument for specific objectives and its role in nurturing civic competency and democratic citizens. Brentnall (2020) highlighted the dual purposes of education: the economic aspect, which imparts skills for economic progress, and the humanistic aspect, which shapes the next generation of democratic citizens working for the common good. These contrasting goals can create tension around integrating enterprise education into the curriculum.

In the past, concerns were raised by O'Brien and Murray (2015) about whether conventional educational systems could foster an entrepreneurial mindset, questioning if education might be part of the problem or the solution. However, the examples of the schools examined in this research challenge O'Brien's

concerns, demonstrating that entrepreneurial education can successfully coexist within the educational framework. Therefore, defining what role enterprise plays within *The New Zealand Curriculum* has been identified by participants as another challenge associated with implementing entrepreneurial education.

Enterprise Within *The New Zealand Curriculum*. A source of confusion that may prevent the wider uptake of enterprise within New Zealand schools seems to stem from the lack of clarity by the Ministry of Education. When looking at the evolution of *The New Zealand Curriculum*, enterprise has featured in the past two iterations. According to Lee et al. (2015) entrepreneurial education provides the medium to deliver to the vision *The New Zealand Curriculum* spelled out for learners. In the printed 2007 version of the curriculum, the vision for learners is stated as to nurture:

young people who will be confident, connected, actively involved, lifelong learners” and “who will seize the opportunities offered by new knowledge and technologies to secure a sustainable social, cultural, economic, and environmental future for our country. (Ministry of Education, 2007a, p. 6)

In the current *New Zealand Curriculum*, the vision for young people is defined as creating learners “who will be creative, energetic, and enterprising” (Ministry of Education, 2007, p. 8). The whole curriculum is built on a vision, values, and eight core principles, encompassing five key competencies and eight learning areas. Notably, 'enterprise' holds a significant position at the beginning of *The New Zealand Curriculum*, being part of one of the underlying principles, signifying its importance within the document. This leaves the impression that the Ministry of Education places strong emphasis on this concept (Lee et al., 2015). Nevertheless, the curriculum does not clarify any of these terms and leaves this assertion without further elaboration, which can be perplexing. Furthermore, Bolstad et al. (2009) note that placing enterprise in a such a prominent place within the curriculum, and alongside sustainability, citizenship, and globalisation, has not been analysed yet and that additional evaluation is needed. It would be especially useful to examine the tensions that exist between the terms of enterprise, sustainability, citizenship, and globalisation.

Furthermore, the concept of 'being enterprising' is seamlessly incorporated within the 'managing self' category, which constitutes one of the curriculum's five key competencies alongside 'participating and contributing,' 'relating to others,' 'thinking,' and 'using language, texts, and symbols.' Within the realm of 'managing self,' the curriculum explicitly defines that "students who manage themselves are enterprising, resourceful, reliable, and resilient" (Ministry of Education, 2007, p. 12). Nevertheless, it offers no further clarification, and this lack of detail adds an additional layer of complexity, thus, contributing to potential confusion. As a result, and contrary to Lee's assumptions, the positioning of enterprise within *The New Zealand Curriculum* creates ambiguity and a sense of insignificance, highlighting the need for a more robust and explicit emphasis on enterprise education within the educational framework.

Ultimately, *The New Zealand Curriculum* is future-oriented, promoting lifelong learning and motivating students to explore crucial future-oriented subjects like sustainability, citizenship, enterprise, and globalisation (Ministry of Education, 2007). It offers a flexible framework that enables schools to craft their curriculum, aligning with both national and local priorities while fostering innovation and adaptability within the realm of education. Similar to the approaches of Sweden (Lackéus & Sävetun, 2020) and the United Kingdom (Lee et al., 2015), New Zealand chose a broad interpretation of 'being enterprising', which allows for flexibility in interpretation and implementation. Though, complementary documents endorsed by the Ministry of Education highlight examples of how schools have implemented enterprise initiatives related to the narrow definition of enterprise, such as examples of 'Market Days' (Ministry of Education, 2020), this inconsistency adds an additional layer of confusion.

The interview data highlighted a lack of consensus among teachers and principals regarding their understanding of the level of prescription of enterprise within the curriculum. Echoing Hardie et al. (2020), some research participants expressed a desire for more specific guidelines in enterprise education. On the other hand, in line with Lee et al. (2015), others appreciated the current freedom and flexibility in implementation. Lee et al. (2015) stated that this lack of direction allows schools the freedom to tailor the implementation of enterprise education to suit the specific needs and context of their community. This

divergence of views reflects the ongoing debate surrounding the balance between structured guidance and the autonomy to adapt enterprise to best fit individual school settings. This differing perspective on the degree of prescription and vagueness around enterprise education may contribute to the reluctance of some schools to embrace it more widely. The absence of a systematic enterprise education strategy is not unique to New Zealand either, as highlighted by Hardie et al. (2020). The underlying message here is that achieving the right balance between structure and freedom is crucial for fostering creativity and the successful implementation of enterprise education.

Whether enterprise education needs to be more or less defined within *The New Zealand Curriculum*, participants agreed that it has to have a more prominent place within the document. This call is at odds with the current situation, as at the time this research was conducted a review of the entire curriculum is in progress and could result in a future where there is no reference to enterprise in the curriculum (Ministry of Education, 2023). Subsequent to an e-mail communication with the Ministry of Education regarding how 'enterprise' will be included in the refreshed curriculum, an ambiguous response²⁴ seemingly indicated that it might not be featured at all, and that entrepreneurial education will presumably fall to those still willing to pursue it. This (lack of) direction by the New Zealand Ministry of Education appears counterintuitive, especially considering the growing international recognition of the role entrepreneurial education can play. As an example, as mentioned earlier, the Welsh curriculum now includes "enterprising creative contributors" (Penaluna et al., 2020, p. 252) as one of the four pillars of education. Questioning which aspects should or should not be incorporated into the curriculum initiates a broader discussion concerning the role of (entrepreneurial) education.

The Purpose of (Entrepreneurial) Education

The current literature within the field of Education Studies sparks controversy, raising the broader question of whether entrepreneurial education is genuinely 'educational' and, consequently, whether it should be integrated into the curriculum at all. From a Platonic perspective, the justification of what items to include in a curriculum comes back to the functions of education, but curriculum

²⁴ Personal correspondence with the Ministry of Education

can also be used to further socio-political interests. This was arguably the case in New Zealand, when after a neoliberal reform in the 1980s, enterprise had been included in *The New Zealand Curriculum (Ministry of Education, 2007)*. In this context, entrepreneurial education was perceived to empower students with the essential skills and mentality required for thriving in a market-driven, competitive economy.

This view aligns with the liberal view discussed earlier and the aims of entrepreneurial education defined by Jones and Iredale (2010): 'freedom' which refers to the economic freedom to start or not start a business, as well as the pedagogical freedom to learn by doing, and 'citizenship', referring to the notion that it can help to create a good society by fostering democratic citizenship. These purposes of (entrepreneurial) education transcended the traditional objectives of cultivating character virtues or pursuing intellectual excellence, akin to Plato's ideals. Instead, (entrepreneurial) education harmonised with the prevailing socio-political agendas, emphasising economic advancement and the readiness of the workforce for an ever-evolving global landscape. These aims need to be contextualised within a broader framework of the purposes of education and schooling.

In addition, the field of positive psychological interventions in schools is rapidly advancing (Waters & Loton, 2019). The United Nations (2015) has recognised the significance of wellbeing by including it among the top 17 sustainable goals. Furthermore, schools have been identified as crucial institutions for nurturing the wellbeing of young individuals (Allison et al., 2020). Consequently, there is a burgeoning worldwide movement advocating for schools to shift their focus from academic achievements alone to also prioritise positive mental health outcomes.

Positive education, as defined by Seligman et al. (2009 cited in Allison), is an educational approach that encompasses not only traditional skills, but also the pursuit of happiness. It serves as a comprehensive framework encompassing research and practices that foster the wellbeing of students (Kern et al., 2017). Positive education amalgamates the principles of positive psychology, focusing on human flourishing, with the best pedagogical techniques from the field of education. Its core objectives are to cultivate strengths, enhance capabilities,

promote wellbeing, and bolster resilience (Allison, 2020). Seligman et al. (2009) argued that schools should “teach both the skills of wellbeing and the skills of achievement” (p. 294) and, thus, re-iterates the re-purposing of education.

Entrepreneurial Education in a Post-Pandemic Era

As outlined in the Chapter Two, a growing number of researchers believe in the vital role entrepreneurial education can play in helping economies recover from the aftermath of the global pandemic (Hardie et al., 2020; Jones et al., 2014; Langston, 2020; Saraiva & Paiva, 2020). This perspective is not only about addressing economic challenges, but also tackling issues in politics, environment, culture, and society (Saraiva & Paiva). Governments see entrepreneurial education as valuable not only for economic revival, but also for cultivating responsible citizenship (Jones et al.).

While the role of enterprise in *The New Zealand Curriculum* may not have been explicitly outlined in the early stages of development, it became more relevant in the context of economic shifts and educational reforms. The curriculum evolved to embrace both the principles of equal access and the preparation of students for an evolving workforce, reflecting the changing priorities and philosophies of New Zealand's education system. As part of a neoliberal movement that started in the late 1980s, it cannot be overlooked that this shift was heavily driven by industry organisations such as The Chamber of Commerce (Oldham, 2017).

Nowadays, a similar movement can be observed. Organisations such as the OECD and the United Nations (UN) assert that entrepreneurial education is a crucial instrument for achieving various societal, environmental, economic, and cultural objectives through public policies (Saraiva & Paiva, 2020). This influence extends globally, significantly shaping education policies (Aamir et al., 2019). While recognising their influential role, it is essential to approach their impact with caution and scrutiny, particularly if their agenda might not align with the best interests of a country's education system and its students. This is an area in which research, such as this study, can help bring awareness.

Not only can enterprise aid in a post-pandemic economic recovery, but it also holds the potential to empower the next generation to thrive in the future (Bacigalupo et al., 2016; Jones et al., 2014; Saraiva & Paiva, 2020). In China, for example, entrepreneurial education is a part of a larger national education

reform initiative for the twenty-first century that aims to deliver what has been termed “an all-round’ quality education from primary school through university (Yan et al., 2018, p. 243). As noted by Yan et al. (2018), the significance of innovation and entrepreneurial education in China extends beyond the creation of new businesses for economic growth. They argue that entrepreneurial education should be regarded as a transformative process capable of addressing escalating issues such as pollution, workplace safety, and social well-being.

Furthermore, like New Zealand, Scotland is contending with the challenges of economic growth and recovery, and its government recognises the significance of enterprise in this endeavour. Consequently, drawing lessons from global best practices, Scotland’s government recently unveiled a well-defined 10-point plan designed to create world-class entrepreneurial campuses within Scotland’s 45 universities and colleges over the span of a decade (Tuffee & Little, 2023). As part of the 10-point plan, the authors recommended cultivating an entrepreneurial mindset in children from an early age. They viewed this as a crucial aspect of education as this preparation will not only benefit students when they enter college or university—enabling them to engage more effectively in tertiary education activities, and potentially leading to direct entrepreneurial endeavours—but also equip young individuals with essential skills for success in various career paths. The apparent neglect of enterprise’s significance within the New Zealand education system is perplexing, considering New Zealand’s historical reputation as an innovative nation. This is especially astonishing given that New Zealand has a track record of pioneering achievements, such as being the first country to grant women the right to vote and conquering Mount Everest (New Zealand Government, n.d.). In contrast, New Zealand appears to be lagging behind other nations in embracing entrepreneurial education.

Enterprise Within the Context of ‘21st Century’ Learning

Another recurring theme in the responses from participating principals and teachers, was the importance of teaching students that enterprise is not solely about making money, but rather about creating something of value. Obtaining the perspectives of children on how ‘money-making’ aligns with their understanding of enterprise would have been valuable, especially considering that none of the words they ranked were directly related to this concept. Aside

from not associating entrepreneurial education just with profit making, participants stressed the broader importance of instilling skills and capabilities extending beyond entrepreneurial ventures. They highlighted the importance of acquiring transferable skills that can be applied in various areas of life, promoting students' versatility and adaptability to navigate different challenges and opportunities beyond entrepreneurial endeavours.

These skills are often referred to as 21st century skills, and researchers, such as Baggen et al. (2021) agree that enterprise is a competency for lifelong learning. Some describe it as a way to equip young people for a “future life and workforce” (Lee et al., 2015, p. 791), while others describe it as a “mindset of taking initiative and steering your own learning, development, and career” (Baggen et al., 2021, p. 2). Blenker et al. (2011), on the other hand, highlighted a different aspect claiming that an entrepreneurial mindset can have an enriching effect by motivating people to help address societal problems. To better prepare children for the challenges of the 21st century, Penaluna et al. (2020) urged for “enterprising creative contributors” (p. 245) to be one of the four pillars of education in a review of the Welsh curriculum. Wales responded to this appeal by including it as one of its four purposes of education in 2020 (Penaluna et al., 2020). As elaborated in more detail later, the recognition of entrepreneurial education's crucial role in reshaping the educational landscape extends beyond Wales. This represents a significant attitudinal shift, especially considering that in New Zealand’s current curriculum review, enterprise receives no specific mention, which will be discussed further below.

Entrepreneurial Education and its Link to Authentic Learning

When exploring the definitional issues surrounding enterprise, participants also introduced pedagogical aspects into the discussion such as authentic learning or project-based learning. This indicates that their conceptual understanding of enterprise is interconnected with how it is taught and implemented in educational settings, further accentuating the complexities involved in effectively integrating enterprise education into school curricula. After addressing the fundamental 'what' and 'why' questions of entrepreneurial education, the central 'how' question remains. Consequently, exploring diverse pedagogical approaches becomes crucial to effectively implement enterprise education. When looking at how to best teach these entrepreneurial competencies, Van

Gelderen (2022) suggests a student-centred approach with five core principles: (1) active student participation, (2) the teacher serving as a facilitator and coach of the learning process, (3) cooperative work or team-based work, (4) real-life, authentic assignments, and (5) opportunities for students to engage in self-regulated learning.

In his evaluation, Lackéus (2020) found that wide entrepreneurial education programmes, which have value creation at their centre, have greater positive effects on students' competence development and motivation than programmes that take a more traditional approach to entrepreneurial education, such as new-venture creation. Furthermore, the EU highlighted the need for a wide approach to entrepreneurship in 2006 when it named "sense of initiative and entrepreneurship" as one of the fundamental competencies needed by all EU citizens (Bacigalupo et al., 2016).

The significance of providing authentic and real-world learning experiences was emphasised by all participants. For some, this involved incorporating industry connections through guest speakers or site visits, while others focused on linking the learning to issues that students personally cared about. Notably, all participating schools integrated a Market Day as a culminating learning opportunity for students. Participating students consistently expressed their enjoyment and satisfaction with the opportunity to self-select their activities for Market Day. However, beyond the enjoyable aspect, the students openly discussed the difficulties they faced during the process. These challenges included difficulties in effective communication, teamwork, and meeting project deadlines, indicating that the Market Day experience provided valuable learning opportunities and allowed them to navigate real-life obstacles.

Market Days as Authentic Entrepreneurial Learning Experiences

The value of having a Market Day was supported by Lackéus and Sävetun (2020), who observed that students experience a sense of pride, enhanced self-efficacy, passion, and strong motivation when they have the opportunity to showcase their work to individuals who appreciate and can utilise it.

Furthermore, in their New Zealand report Roberts et al. (2008) found that participants who engaged in market day-type approaches often described the experience as enjoyable and identified specific entrepreneurial attributes they

had acquired. However, their level of passion, commitment, and focus did not align with that of students involved in generating new knowledge to address real business or community needs.

These findings resonate with the feedback from students who participated in this research. Students consistently expressed a preference for Market Day activities over other subjects or school-related activities and listed a range of skills and competencies they acquired during the process. Consequently, the inclusion of an actual outcome in enterprise education not only serves as a beneficial pedagogical practice, but also aligns with existing research in the field, as studies have shown that such authentic outcomes significantly increase student engagement and foster deeper learning (Wiggins et al., 2005).

The integration of tangible and real-world outcomes into entrepreneurial activities empowers students to apply their knowledge in practical contexts, resulting in a more meaningful and impactful learning experience. Furthermore, a conclusion of the learning experience, such as a Market Day, plays a crucial role in motivating students to take action. Previous research conducted by Haneberg et al. (2019) suggested that certain students may require an extra push to actively participate and make progress within an entrepreneurial programme.

The visit to the Pioneer Primary School Market Day differed from my experiences at other schools, leading me to consider three potential factors. Firstly, the absence of explicit learning statements might result in children not fully realising what they have learned. Their focus on specific tasks, like cultivating lavender and creating products for sale, could limit the maximisation of outcomes or even diminish them. Secondly, the lack of student-led initiatives might reduce student agency during Market Day, as each age group is responsible for specific resources, restricting their ability to make independent decisions. This could result in reduced engagement among some students, echoing concerns expressed by teachers about diminishing freedom in Market Day activities. Lastly, the school's lower socio-economic status may result in differences in students' access to educational conversations and experiences at home, potentially impacting their performance in comparison to students from schools with higher socio-economic status.

Conclusion

In conclusion, the implementation of enterprise education in schools presents multifaceted challenges, necessitating a unified understanding of the concepts to develop more effective and tailored programmes for individual school contexts. As (Brentnall, 2020) aptly suggests, the approach to enterprise education is not linear, but complex, requiring an exploration of what works for whom, in what circumstances, and why.

Creating a shared understanding and vision for enterprise education among stakeholders is crucial for its successful integration into school curricula. One possible solution to address definitional issues and promote consistency in programming lies in adapting the progressional model of entrepreneurial education proposed by Lackéus (2018a).

Incorporating storytelling of the impact of enterprise education on students and providing first-hand experiences through entrepreneurial programmes for school leaders and teachers can also be instrumental in gaining their buy-in and support. Offering professional development that models an enterprise approach would allow principals and teachers to gain an enterprising experience themselves, which is a crucial prerequisite to enterprise being adopted more widely. A recent study by Chaker and Jarraya (2021) concluded that entrepreneurial teachers lead to entrepreneurial students.

Additionally, aligning with the entrepreneurial ecosystem and designing multi-disciplinary, experiential programmes that span age groups and beyond school borders can further enhance wider uptake. An example could be building and implementing modular programmes, consisting of core and elective components, offering a practical approach to tackle the complexities of enterprise education. Such modularity would allow educators the flexibility to choose and integrate the most suitable modules, tailoring the programmes to their specific school environment.

In conclusion, a thoughtful blend of adaptability, experiential learning, and engagement, guided by a unified understanding of enterprise education, can pave the way for more effective and transformative programmes that equip students with essential skills for the dynamic challenges of the 21st century. By

embracing the complexities and leveraging innovative approaches, schools can unlock the full potential of enterprise education, preparing students to thrive in an ever-evolving world.

Chapter 6: Conclusion

At the conclusion of this study, it pays to reflect on the insights of Roberts and Casap (2018, On One Rainy Afternoon section) and the perspective of the World Economic Forum (2009). The former called for a shift in focus from asking about the-future professions of children to inquiring about the problems they aspire to address, which suggests a significant shift is required in education. The latter emphasised the pivotal role of entrepreneurial education as a driver of societal change across diverse sectors. These statements propose the transformative potential of entrepreneurial education and the importance to society of nurturing an entrepreneurial mindset. This concluding chapter contains a reflection on the significance of these ideas in the context of the research objectives and questions. First, how enterprise has been conceptualised and promoted within four New Zealand schools is summarised. Additionally, it explores the significance and contributions of this study. The limitations of the study are assessed, and recommendations are proposed for potential avenues of future research.

The research findings had four themes and ten sub-themes, which were discussed in Chapter Five. Theme One related to factors enabling enterprise in schools and included the following subthemes: the enterprising behaviour of teachers and principals and the importance of having a supportive ecosystem. Theme Two focused on challenges of embracing enterprise in schools and identified the following subthemes: definitions of enterprise, the inconsistent implementation of enterprise in schools and the systemic challenges associated with implementing enterprise education. Theme Three linked enterprise to '21st century' learning and included the sub-themes of future-focused education and the link to authentic learning. Theme Four covered the outcomes of embracing enterprise in schools and the following subthemes were identified: enterprise education providing opportunities for students to find and pursue their passion, the increased engagement of teachers and students as a result of their enterprise studies, and students acquiring 'hard' and 'soft' skills through their enterprise studies.

Answering the Research Questions

This research study was an exploration of the role enterprise plays in the context of New Zealand schools by applying a case study methodology to four school settings to gain insights into how this concept has been conceptualised within different learning environments and age groups. It addressed the following research questions:

- How do teachers and students experience enterprise in schools that encourage enterprise?
- How is enterprise understood, valued, and promoted by teachers in schools that embrace enterprise?
- What can be learned from schools that practice the concept of enterprise?

This study highlighted that how enterprise is conceptualised and promoted varies greatly between the four schools that participated. This is largely due to how enterprise is defined by participants at each school and what each school's context entails. These differences are primarily attributed to the school's unique definition of enterprise and its contextual factors. Several challenges were identified by participants, including the ambiguity of enterprise's definition, inconsistent implementation in schools, and broader systemic obstacles. Despite these challenges, teachers and principals expressed strong enthusiasm and passion for enterprise, recognising its value for students, a sentiment echoed by participating students.

In contrast, however, to the global trend of recognising the importance of entrepreneurial education and its integration into education systems, it is notable that the New Zealand Ministry of Education appears to be moving away from referencing 'enterprise' in the revised curriculum.

Furthermore, this study identified several factors that facilitate the implementation of enterprise in schools, including the enterprising behaviour of teachers and principals and the presence of a school ecosystem supportive of enterprise. Despite the diverse contexts in which enterprise is embraced by the participating schools, there are valuable takeaways that other educational institutions can glean from this research.

Significance of This Research

The study had four primary research objectives. Firstly, the aim was to investigate how enterprise is understood and practiced within New Zealand schools, with a particular focus on gathering insights from teachers, principals, and students. While more students could have participated in the study, the chosen participant selection was considered to be an adequate representation of the experiences of the participating schools' stakeholders. Through a critical realist lens, various factors could be seen to be illuminated by the research encompassing both facilitators and barriers to the adoption of enterprise within schools, along with the resulting outcomes of these practices.

Secondly, throughout this research, I have advocated for the inclusion of enterprise in *The New Zealand Curriculum*, particularly embracing its broader definition involving the development of entrepreneurial competencies like creativity, self-efficacy, innovativeness, initiative-taking, proactiveness, uncertainty, tolerance, and perseverance. The increasing recognition by other countries, and a growing number of researchers, indicates that entrepreneurial education can play a vital role in post-pandemic recovery and the development of well-rounded citizens. Removing enterprise from *The New Zealand Curriculum* would be a regressive step, considering its potential positive influence on students' future endeavours, regardless of their chosen career paths. The existing lack of clarity around the concept of enterprise hinders its potential impact. Resolving the definitional ambiguity is crucial, and the adoption of the continuum framework proposed by Lackéus (2018a) may expedite this process.

Thirdly, the study aimed to align my personal interests in the field with a broader research agenda, given the recognition of entrepreneurial education as a valuable tool for economic recovery in a post-pandemic context.

Another emerging aim during the study was to raise awareness of the benefits associated with introducing entrepreneurial education to young students.

Furthermore, my intention was to contribute to the development of education policies, particularly considering New Zealand's ongoing curriculum revision. The study was also built on my aspiration to stimulate a reconsideration of

existing concerns and encourage further research among educators, policymakers, and politicians.

Lastly, given that a significant portion of the existing literature originates from a business context, rather than education, this research enriches the body of education knowledge by conducting qualitative research that bridges these two distinct domains. The full impact of this study in addressing the latter objectives will become evident over the next decade.

Challenges Encountered With This Study

Numerous challenges were encountered during the data collection process. Firstly, COVID-related restrictions on physical access to schools delayed data collection, causing significant delays in the research timeline. This included delays in identifying suitable schools and creating time to interview participants as schools sought to re-establish routines post-pandemic. Principals were more amenable to committing and scheduling interviews compared to teachers, who were more reluctant to commit, despite flexible options offered for interview timing. In one school, interviewing teachers proved impossible within the data collection window.

Moreover, involving children in the research posed the most significant challenge. The ethics process required extensive measures, resulting in various forms for children of different age groups. Engaging with children proved unpredictable, necessitating adaptability during the research activity. Consequently, the number of included students fell short of the intended goal, with only students from the Creative Composite school participating, despite the initial plan to involve students from at least three of the four schools.

Limitations of This Research

Despite being a widely employed qualitative research approach, particularly within educational research, the case study methodology still contends with challenges in gaining full acceptance as a legitimate social science research method. Some scholars, like Yazan (2015), attribute this to the methodology's perceived lack of well-defined protocols. However, another contributing factor could be the divergence in viewpoints among the three leading methodologists in this field, namely Yin, Merriam, and Stake regarding the design and execution

of case study research. As is the case with every qualitative study, it is important to acknowledge that the findings are inherently subjective and context-specific; reflecting the unique experiences of the participants involved. Therefore, while the results of this study may not be generalisable, they do provide valuable insights into how enterprise is perceived and practiced by principals, teachers, and students within the specific contexts examined. The findings also may resonate with others in similar contexts.

The participating teachers and principals displayed great enthusiasm for enterprise education, recognising that while it can be challenging to implement, its benefits outweigh the difficulties. However, it is important to acknowledge the possibility of bias in their responses. Since these educators self-selected to participate in the study, there is a question of whether they may have been inclined to provide responses that align with my expectations. Additionally, since the schools were purposefully selected for their active engagement in enterprise education, the likelihood of them expressing critical views on the subject was minimal.

Ensuring representation of the student voice was a key priority in this study. However, the limitation of conducting only one focus group in one of the four selected schools significantly restricted the insights and perspectives that could have been gathered from students.

Recommendations for Further Research

This section summarises recommendations for further research identified throughout previous chapters and explains how they could contribute to entrepreneurial education literature. Expanding the research to involve a more extensive and diverse group of children to gain deeper insights into their encounters with enterprise represents a logical and valuable direction for future investigations. There are a number of avenues which could be explored more deeply, such as examining age-related variations in children's enterprise perceptions and analysing the effect on views, depending on different educational settings or pedagogical methods. By expanding the research in these directions, scholars can contribute to a more comprehensive understanding of the role of entrepreneurial education in childhood development and its potential impact on children's futures.

The growing interest in identifying future-focused skills essential for the success of future generations presents numerous directions for future research. As highlighted by Jones (2010), entrepreneurial education plays a vital role in boosting confidence, serving as a critical 21st-century skill. Exploring this connection further could offer a promising path for future research endeavours.

Given an increasing focus on mental health and wellbeing in schools, especially in the field of positive education (Waters & Loton, 2019), exploring the relationship between well-being and possessing an entrepreneurial mindset could also serve as a promising avenue for future research. Investigating how traits associated with enterprise, such as creativity, risk-taking, and problem-solving, intersect with an individual's overall well-being, including their mental and emotional health, could provide valuable insights. Research in this area could contribute to a deeper understanding of how fostering entrepreneurial attitudes and skills may not only promote economic growth, but also have broader implications for individual and societal well-being.

Exploring teacher perceptions of increased workload in teaching enterprise offers another promising area for further research. This could involve investigating the reasons behind these perceptions, examining the impact of specialised training, assessing resource availability, and exploring potential benefits and strategies for managing workload in schools implementing enterprise education. Lastly, since two of the schools' initiatives involved establishing funds to invest in student ideas, this could be another promising avenue for potential future research.

Conclusion

This research, an examination of four New Zealand schools that engage in enterprise education, is a reflection of how enterprise is conceptualised and practiced in these diverse learning environments. The significance of this study may extend beyond these institutions, emphasising the broader societal implications of entrepreneurial education. The research findings highlight that fostering an entrepreneurial spirit may be a factor in empowering all members of society with the essential skills and innovative thinking required to meet the challenges of the 21st century, and not simply be aimed at cultivating future business leaders. Future research may explore the long-term effects of

entrepreneurial education, particularly in various educational contexts and across different age groups. In conclusion, an optimistic perspective will see the transformative potential of entrepreneurial education hopefully continue to evolve and enrich educational landscapes, enhancing the skills, creativity, and adaptability of future generations.

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Appendices

Appendix A: Ethics Approval



Auckland University of Technology Ethics Committee (AUTEC)

Auckland University of Technology
D-88, Private Bag 92006, Auckland 1142, NZ
T: +64 9 921 9999 ext. 8316
E: ethics@aut.ac.nz
www.aut.ac.nz/researchethics

TE WĀNANGA ARONUI
O TĀMAKI MAKĀU RAU

21 February 2022

Leon Benade
Faculty of Culture and Society

Dear Leon

Re Ethics Application: **21/441 Preparing for an enterprising future: A case study of the role of enterprise in New Zealand schools**

Thank you for providing evidence as requested, which satisfies the points raised by the Auckland University of Technology Ethics Committee (AUTEC).

Your ethics application has been approved in stages for three years until 21 February 2025.

Standard Conditions of Approval

1. The research is to be undertaken in accordance with the [Auckland University of Technology Code of Conduct for Research](#) and as approved by AUTEC in this application.
2. A progress report is due annually on the anniversary of the approval date, using the EA2 form.
3. A final report is due at the expiration of the approval period, or, upon completion of project, using the EA3 form.
4. Any amendments to the project must be approved by AUTEC prior to being implemented. Amendments can be requested using the EA2 form.
5. Any serious or unexpected adverse events must be reported to AUTEC Secretariat as a matter of priority.
6. Any unforeseen events that might affect continued ethical acceptability of the project should also be reported to the AUTEC Secretariat as a matter of priority.
7. It is your responsibility to ensure that the spelling and grammar of documents being provided to participants or external organisations is of a high standard and that all the dates on the documents are updated.
8. AUTEC grants ethical approval only. You are responsible for obtaining management approval for access for your research from any institution or organisation at which your research is being conducted and you need to meet all ethical, legal, public health, and locality obligations or requirements for the jurisdictions in which the research is being undertaken.

Please quote the application number and title on all future correspondence related to this project.

For any enquiries please contact ethics@aut.ac.nz. The forms mentioned above are available online through <http://www.aut.ac.nz/research/researchethics>

(This is a computer-generated letter for which no signature is required)

The AUTEC Secretariat
Auckland University of Technology Ethics Committee

Cc: Sabrina.nagel@aut.ac.nz

Appendix B: Information Sheet—Principals



Auckland University of Technology
Private Bag 92006, Auckland 1142, NZ
T: +64 9 921 9999
www.aut.ac.nz

Participant Information Sheet- Principals

Project Title: Preparing for an enterprising future: A case study of the role of enterprise in New Zealand schools

Date Information Sheet Produced: 21st Feb 2022

Researcher: Sabrina Nagel

An invitation

My name is Sabrina Nagel and I am a Masters student at AUT, undertaking a Masters of Philosophy with a focus on enterprise education. I have been working at the intersection of education and enterprise for the last decade and am very passionate about this space. I would like to invite you to be part my research.

What is the purpose of this research?

Over decades, including ‘enterprise’ or ‘entrepreneurship’ education into education systems around the world has been popular. Since the global pandemic these concepts have also been suggested as important tools to help economies recover. Yet, the difference between the two terms and the benefits these can bring to the student body, are not well understood, or embraced. The aim of this study is to examine how enterprise has been conceptualised and promoted in a New Zealand school’s context.

How was I identified and why am I being invited to participate in this research?

Based on your public reputation, supported by information on your school website, it appears that your school actively embraces enterprise, so I would like to interview you about your experience of implementing enterprise education in your school. I would like to run an information session for teachers actively involved in teaching enterprise studies or concepts with a view to recruiting interview participants.

How do I agree to participate in this research?

If you decide to participate in this research, please fill out the Principal Consent Form. Your participation in this research is voluntary and whether you choose to participate will neither advantage nor disadvantage you. You can withdraw from the study at any time. If you choose to withdraw from the study, then you will be offered the choice between having any data that is identifiable as belonging to you removed or allowing it to continue to be used. However, once the findings have been produced, removal of this data may not be possible.

What will happen in this research?

To gain a variety of different data, I would like to gain insights from you as the principal, some of your teachers, as well as from some of your students. Firstly, I will arrange a 1:1



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interview with you at the school premises at a convenient time to you. Teachers who have agreed to participate can contact me directly to arrange a time for an interview. Thereafter, I am requesting permission to visit their class to introduce myself to the children to explain the research, and to ask for Focus Group volunteers. With the help of their teacher/s, I will schedule the student focus group with those children who have assented and whose parents have consented. The focus group consists of a group activity where I will ask participants to engage in a ranking activity to gain insights into the children's experience of enterprise.

What are the discomforts and risks?

This is a low-risk activity, and it is unlikely you will experience discomfort.

What are the benefits?

This research explores what role enterprise plays in New Zealand schools and thus, can help inform what role enterprise might play in the future. It will highlight how some teachers and students experience enterprise and thus, the published research will also act as inspiration to other schools in how to embrace enterprise in different ways. The research findings will also form the foundation for my Master of Philosophy thesis.

How will my privacy be protected?

I will audio-record the interviews and take my own notes. I might take pictures of places within the school, classroom resources or activities to illustrate how your school embraces enterprise or for memorisation purposes. Pictures will not be used for commercial purposes but potentially included in my thesis to illustrate my findings in which case I will ensure they do not infringe privacy

Access to data is restricted to me and my supervisor. The audio files will be sent to a transcriber who signs a Confidentiality Agreement. Information collected will be treated in confidence. You will be de-identified when I write up the research and comments made in interviews are treated as strictly private and confidential. While I cannot offer anonymity, as we will meet face-to-face, my ethical conduct as a researcher is focussed on doing no harm to my participants. Data will be stored safely on university premises for a period of six years. After this period, the data and data analysis will be destroyed.

What are the costs of participating in this research?

Each interview will take a maximum of one hour. The focus group with children will take around 30-45min.

What opportunity do I have to consider this invitation?

I will follow up once, in two weeks' time.

Will I receive feedback on the results of this research?



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I will send you a transcript of our interview to ensure you are satisfied with its contents. Later, summaries of the findings will be made available to you.

What do I do if I have concerns about this research?

Any concerns regarding the nature of this project should be notified in the first instance to the Project Supervisor, Leon Benade, leon.w.benade@aut.ac.nz, 09 921 9999 ext 7931. Concerns regarding the conduct of the research should be notified to the Executive Secretary of AUTEK, ethics@aut.ac.nz (09) 921 9999 ext 6038.

Whom do I contact for further information about this research?

Please keep this Information Sheet and a copy of the Consent Form for your future reference.

Thank you for considering my request and for your support in making this project possible. If you would like further information, please feel free to contact me or the research team as follows:

Researcher Contact Details:

Sabrina Nagel
Postgraduate Researcher
sabrina.nagel@aut.ac.nz
09 921 9999 ext 6465

Project Supervisor Contact Details:

Leon Benade
Associate Professor
Head of School
Postgraduate Leader
School of Education
Auckland University of Technology
leon.w.benade@aut.ac.nz

09 921 9999 ext 7931

***Approved by the Auckland University of Technology Ethics Committee on 21st Feb 2022,
AUTEK Reference number 21/441***

Appendix C: Information Sheet—Teachers



Auckland University of Technology
Private Bag 92006, Auckland 1142, NZ
T: +64 9 921 9999
www.aut.ac.nz

Participant Information Sheet- Teachers

Project Title: Preparing for an enterprising future: A case study of the role of enterprise in New Zealand schools

Date Information Sheet Produced: 21st Feb 2022

Researcher: Sabrina Nagel

An invitation

My name is Sabrina Nagel and I am a Masters student at AUT, undertaking a Masters of Philosophy with a focus on enterprise education. I have been working at the intersection of education and enterprise for the last decade and am very passionate about this space. I would like to invite you to be part my research.

What is the purpose of this research?

Over decades, including 'enterprise' or 'entrepreneurship' education into education systems around the world has been popular. Since the global pandemic these concepts have also been suggested as important tools to help economies recover. Yet, the difference between the two terms and the benefits these can bring to the student body, are not well understood, or embraced. The aim of this study is to examine how enterprise has been conceptualised and promoted in a New Zealand school's context.

How was I identified and why am I being invited to participate in this research?

Your school actively embraces enterprise, so I would like to interview you about your experience of embracing enterprise in your school.

How do I agree to participate in this research?

If you decide to participate in this research, please fill out the Teacher Consent Form. Your participation in this research is voluntary and whether you choose to participate will neither advantage nor disadvantage you. You can withdraw from the study at any time. If you choose to withdraw from the study, then you will be offered the choice between having any data that is identifiable as belonging to you removed or allowing it to continue to be used. However, once the findings have been produced, removal of this data may not be possible.

What will happen in this research?

To gain a variety of different data, I would like to gain insights from your principal, teachers like yourself, as well as from some of your students. I will arrange a 1:1 interview with you at the school premises at a convenient time to you. Thereafter, I am requesting permission to visit your class to introduce myself to the children to explain the research, and to ask for Focus Group volunteers. With your help, I will schedule the student focus group with those



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children who have assented and whose parents have consented. The focus group consists of a group activity where I will ask questions and play a diamond sorting game to gain insights into the children's experience of enterprise.

What are the discomforts and risks?

This is a low-risk activity, and it is unlikely you will experience discomfort.

What are the benefits?

This research explores what role enterprise plays within New Zealand schools and thus, can help inform what role enterprise might play in the future. It will highlight how some teachers and students experience enterprise and thus, the published research will also act as inspiration to other schools in how to embrace enterprise in different ways. The research findings will also form the foundation for my Master of Philosophy thesis.

How will my privacy be protected?

I will audio-record the interviews and take my own notes. I might take pictures of places within the school, classroom resources or activities to illustrate how your school embraces enterprise or for memorisation purposes. Pictures will not be used for commercial purposes but potentially included in my thesis to illustrate my findings in which case I will ensure they do not infringe privacy.

Access to data is restricted to me and my supervisor. The audio files will be sent to a transcriber who signs a Confidentiality Agreement. Information collected will be treated in confidence. You will be de-identified when I write up the research and comments made in interviews are treated as strictly private and confidential. While I cannot offer anonymity, as we will meet face-to-face, my ethical conduct as a researcher is focussed on doing no harm to my participants. Data will be stored safely on university premises for a period of six years. After this period, the data and data analysis will be destroyed.

What are the costs of participating in this research?

Each interview will take a maximum of one hour and the focus group will take a 30-45min.

What opportunity do I have to consider this invitation?

I will follow up once, in two weeks' time.

Will I receive feedback on the results of this research?

I will send you a transcript of our interview to ensure you are satisfied with its contents. Later, summaries of the findings will be made available to you.

What do I do if I have concerns about this research?

Any concerns regarding the nature of this project should be notified in the first instance to the Project Supervisor, Leon Benade, leon.w.benade@aut.ac.nz, 09 921 9999 ext 7931



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T: +64 9 921 9999
www.aut.ac.nz

Concerns regarding the conduct of the research should be notified to the Executive Secretary of AUTECH, ethics@aut.ac.nz (09) 921 9999 ext 6038.

Whom do I contact for further information about this research?

Please keep this Information Sheet and a copy of the Consent Form for your future reference.

Thank you for considering my request and for your support in making this project possible. If you would like further information, please feel free to contact me or the research team as follows:

Researcher Contact Details:

Sabrina Nagel
Postgraduate Researcher
sabrina.nagel@aut.ac.nz
09 921 9999 ext 6465

Project Supervisor Contact Details:

Leon Benade
Associate Professor
Head of School
Postgraduate Leader
School of Education
Auckland University of Technology
leon.w.benade@aut.ac.nz
09 921 9999 ext 7931

***Approved by the Auckland University of Technology Ethics Committee on 21st Feb 2022,
AUTECH Reference number 21/441***

Appendix D: Information Sheet—Parents/Guardians



Auckland University of Technology
Private Bag 92006, Auckland 1142, NZ
T: +64 9 921 9999
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Participant Information Sheet- Students (over 16years)

Project Title: Preparing for an enterprising future: A case study of the role of enterprise in New Zealand schools

Date Information Sheet Produced: 25th Feb 2023

Researcher: Sabrina Nagel

An invitation to the parents/guardians of the students at XXX

My name is Sabrina Nagel and I am a Masters student at AUT, undertaking a Masters of Philosophy with a focus on enterprise education. I would like to invite your child to be part my research.

What is the purpose of this research?

Including 'enterprise' or 'entrepreneurship' education into education systems around the world has become popular. Since the global pandemic these concepts have also been suggested as important tools to help economies recover. Yet, the difference between the two terms and the benefits these can bring to the student body, are not well understood, or embraced. The aim of this study is to examine how enterprise has been conceptualised and promoted in a New Zealand school's context.

How was your child identified and why is my child being invited to participate in this research?

Your child's school actively embraces enterprise, your child's teacher has volunteered to be interviewed by me and I would really like to hear the children's perspective, too. Thus, I would like to include your child in a focus group to find out how children experience enterprise in your school.

How do I agree for my child to participate in this research?

Your child will receive an Assent Form which is written in plain language, so they understand what this research is about and whether they want to take part. If they assent and you allow your child to participate in this research, please fill out the Parent/guardian Consent Form, scan it and return to my email address (at the bottom of the page), or your child can give it to me in person on the day of the focus group.

Your child's participation in this research is voluntary and it is their choice whether they would like to participate. This decision will neither advantage nor disadvantage them. They can withdraw from the study at any time. If you or your child choose to withdraw from the study, then you will be offered the choice between having any data that is identifiable as belonging to your child removed or allowing it to continue to be used. However, once the findings have been produced, removal of this data may not be possible.



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T: +64 9 921 9999
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What will happen in this research?

With the help of your child's teacher, I will schedule a student focus group during the school day with those children who have assented and whose parents have consented. As part of the focus, I will ask the children in groups of 2-3 to engage in a ranking activity to gain insights into the children's experience of enterprise at their school.

What are the discomforts and risks?

This is a low-risk activity, but your child might feel uncomfortable answering a question or participating in which case they are able to leave at any time.

What are the benefits?

This research explores what role enterprise plays within New Zealand schools and thus, can help inform what role enterprise might play in the future. It will highlight how some teachers and students experience enterprise and thus, the published research will also act as inspiration to other schools in how to embrace enterprise in different ways. The research findings will also form the foundation for my Master of Philosophy thesis.

How will my child's privacy be protected?

I will audio-record the interviews, take my own notes and might take pictures of the children's creations. Pictures will specifically be taken so as to avoid including recognizable images of the children themselves. Pictures will not be used for commercial purposes but potentially included in my thesis to illustrate my findings in which case I will ensure they do not infringe privacy. Access to data is restricted to me and my supervisor. The audio files will be sent to a transcriber who signs a Confidentiality Agreement. Information collected will be treated in confidence. Your child will be de-identified when I write up the research and any comments made during the focus group are treated as strictly private and confidential. While I cannot offer anonymity, as we will meet face-to-face, my ethical conduct as a researcher is focussed on doing no harm to my participants. Data will be stored safely on university premises for a period of six years. After this period, the data and data analysis will be destroyed.

What are the costs of participating in this research?

The focus group will take a maximum of 30-45min.

What opportunity do I have to consider this invitation?

I will follow up once, in two weeks' time.

Will I receive feedback on the results of this research?

Summaries of the findings will be made available to you.

What do I do if I have concerns about this research?



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Any concerns regarding the nature of this project should be notified in the first instance to the Project Supervisor, Leon Benade, leon.w.benade@aut.ac.nz, 09 921 9999 ext 7931. Concerns regarding the conduct of the research should be notified to the Executive Secretary of ATEC, ethics@aut.ac.nz, (09) 921 9999 ext 6038.

Whom do I contact for further information about this research?

Please keep this Information Sheet and a copy of the Consent Form for your future reference.

Thank you for considering my request and for your support in making this project possible. If you would like further information, please feel free to contact me or the research team as follows:

Researcher Contact Details:

Sabrina Nagel
Postgraduate Researcher
sabrina.nagel@aut.ac.nz
09 921 9999 ext 6465

Project Supervisor Contact Details:

Leon Benade
Associate Professor
Head of School
Postgraduate Leader
School of Education
Auckland University of Technology
leon.w.benade@aut.ac.nz
09 921 9999 ext 7931

**Approved by the Auckland University of Technology Ethics Committee on 21st Feb 2022,
ATEC Reference number 21/441**

Appendix E: Information Sheet and Assent Form—Primary Aged Children

If you would like to take part in the research activity, please sign your name below

(Name)

Parent/caregiver details. Please return this form to your teacher within the next two weeks. Your teacher will also remind you again in two weeks' time.

(Name)

(signature)

(Date)

Researcher Name: Sabrina Nagel

WHAT DO I DO IF I HAVE CONCERNS ABOUT THIS RESEARCH?

Any concerns regarding the nature of this project should be notified in the first instance to the Project Supervisor, leon.w.benade@aut.ac.nz, 09 921 9999 ext 7931

Concerns regarding the conduct of the research should be notified to the Executive Secretary of AUTECH, ethics@aut.ac.nz (09) 921 9999 ext 6038.

Approved by the Auckland University of Technology Ethics Committee on 21st Feb 2022, AUTECH Reference number 21/441

What are the benefits of this research? Why am I doing this research?

I am doing this work as part of my Masters thesis which is a research project at the university but I am also hoping that other teachers and schools can learn from what I am finding out and maybe do something similar at their school.

How long will the research take?

The activity will take no longer than 30-45min.

How will my privacy be protected?

I will audio-record, take my own notes and I might take pictures of your creations but I will not take pictures of people. You will be de-identified when I write up the research and any comments made during the activity are treated as strictly private and confidential. Data will be stored safely on university premises for a period of six years. After this period, the data and data analysis will be destroyed.

When do I need to decide whether I would like to participate in this research?

You can have a think about it, and I will ask you in two weeks' time what your decision is.

Will I find out what you found out with this research?

I will share a summary of what I found out with your teachers.



THE ROLE OF ENTERPRISE IN NEW ZEALAND SCHOOLS

INFORMATION SHEET AND ASSENT FORM FOR PRIMARY SCHOOL CHILDREN

This form will be kept for a period of 6 years

Hello – my name is Sabrina Nagel.

I am a researcher at Auckland University of Technology and I am interested in a concept called 'enterprise'. Some people think it means starting a business by coming up with an idea, researching its potential and writing a plan on how to do it. Other people say it means being a good problem solver and thinking critically. I would really like to find out what it means to you and how you are experiencing it at school.

Here is a picture of me:



I would like to invite you to take part in some research I am doing. The research activity would take about 30-45min during the school day. I will put you in groups of 2-3 and give you an activity to do. The activity consists of you putting certain words or pictures into an order. While you rank them, I will walk around and take some notes. I might ask you why you have chosen your order and to remember what you tell me; I might record what you say. At the end, I will take a picture of the order you created.

To take part in this research is voluntary so you can choose whether you want to do the activity. This choice is yours and the decision will neither advantage nor disadvantage you. You can also withdraw or stop taking part in the activity at any time. If you choose to withdraw, then you can choose whether your data will be removed or not. This means you can decide whether anything you said or have done will be removed from my notes or whether it can stay in my notes. However, once the findings have been produced, removing the data may not be possible so if I already have written a report which includes your answers also, I might not be able to take your answers out anymore.

Appendix F: Information Sheet and Assent Form—Intermediate Aged Children

Please sign below to confirm that you would like to take part in the research.

(Name)

Parent/caregiver details. Please return this form to your teacher within the next two weeks. Your teacher will also remind you again in two weeks' time.

(Name)

(signature)

(Date)

Researcher Name: Sabrina Nagel

WHAT DO I DO IF I HAVE CONCERNS ABOUT THIS RESEARCH?

Any concerns regarding the nature of this project should be notified in the first instance to the Project Supervisor, leon.w.benade@aut.ac.nz, 09 921 9999 ext 7931

Concerns regarding the conduct of the research should be notified to the Executive Secretary of AUTC, ethics@aut.ac.nz (09) 921 9999 ext 6038.

Approved by the Auckland University of Technology Ethics Committee on 21st Feb 2022, AUTC Reference number 21/441

What are the benefits of this research? Why am I doing this research?

I am doing this research as part of my Masters thesis which is a two-year long project at university but I am also hoping that other teachers and schools can learn from what I am finding out and maybe do something similar at their school.

How long will the research take?

The activity will take 30-45 min.

How will my privacy be protected?

I will audio-record, take my own notes and might take pictures of your creations but I will not take pictures of people. You will be de-identified when I write up the research and any comments made during the activity are treated as strictly private and confidential. Data will be stored safely on university premises for a period of six years. After this period, the data and data analysis will be destroyed.

When do I need to decide whether I would like to participate in this research?

You can have a think about it, and I will ask you in two weeks' time what your decision is.

Will I find out what you found out with this research?

I will share a summary of what I found out with your teacher.



THE ROLE OF ENTERPRISE IN NEW ZEALAND SCHOOLS

INFORMATION SHEET AND ASSENT FORM

FOR INTERMEDIATE SCHOOL CHILDREN

This form will be kept for a period of 6 years

Hello – my name is Sabrina Nagel.

I am a researcher at Auckland University of Technology and I am interested in a concept called 'enterprise'. Some people think it means starting a business by coming up with an idea, researching its potential and writing a plan on how to do it. Other people say it means being a good problem solver and thinking critically. I would really like to find out what it means to you and how you are experiencing it at school.

Here is a picture of me:



I would like to invite you to take part in some research I am doing. The research activity would take about 30-45min during the school day. The activity consists of you putting certain words or pictures into an order. While you and the other children rank them, I will walk around and take some notes. I might ask you why you have chosen your order and to remember what you tell me; I might record what you say. At the end, I will take a picture of the order you created.

Your participation in this research activity is voluntary so you can choose whether to take part. This choice is yours and this decision will neither advantage nor disadvantage you. You can also withdraw from the activity at any time. If you choose to withdraw, then you can choose whether your data will be removed or not. However, once the findings have been produced, removing the data may not be possible as if I have already written a report which includes your answers also, I might not be able to take your answers out anymore.

Appendix G: Information Sheet—Students (Over 16 Years)



Auckland University of Technology
Private Bag 92006, Auckland 1142, NZ
T: +64 9 921 9999
www.aut.ac.nz

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Participant Information Sheet- Students (over 16years)

Project Title: Preparing for an enterprising future: A case study of the role of enterprise in New Zealand schools

Date Information Sheet Produced: 27th April 2023

Researcher: Sabrina Nagel

An invitation to the students at XXX

My name is Sabrina Nagel and I am a Masters student at AUT, undertaking a Masters of Philosophy with a focus on enterprise education. I would like to invite you to be part of my research.

What is the purpose of this research?

I am interested in a concept called 'enterprise'. Some people think it means starting a business by coming up with an idea, researching its potential and writing a plan on how to do it. Other people say it means being a good problem solver and thinking critically.

I would really like to find out what it means to you and how you are experiencing it at school.

How was I identified and why am I being invited to participate in this research?

Your school actively embraces enterprise, and your teacher has volunteered to be interviewed by me and I would really like to hear your perspective, too. Thus, I would like to include you in a focus group to find out how students experience enterprise in your school. A focus group means taking part in an interactive discussion about this topic as part of a small group. There will be around 4-6 students in each focus group.

How do I agree to participate in this research?

If you decide to participate in this research, please fill out the Student Consent Form. Your participation in this research is voluntary and whether you choose to participate will neither advantage nor disadvantage you. You can withdraw from the study at any time. If you choose to withdraw from the study, then you will be offered the choice between having any data that is identifiable as belonging to you removed or allowing it to continue to be used. However, once the findings have been produced, removal of this data may not be possible.

What will happen in this research?

With the help of your teacher, I will schedule a student focus group at a convenient time with those students who have given consent to participate.



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T: +64 9 921 9999
www.aut.ac.nz

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What are the discomforts and risks?

This is a low-risk activity, and it is unlikely you will experience discomfort.

What are the benefits?

You will get a chance to reflect on your own learning and your thoughts will contribute to my research project. This research explores what role enterprise plays within New Zealand schools and this study will help inform what role enterprise might play in the future. It will highlight how some teachers and students experience enterprise and thus, the published research will also act as inspiration to other schools in how to embrace enterprise in different ways. The research findings will also form the foundation for my Master of Philosophy thesis.

How will my privacy be protected?

I will audio-record the focus group and get it transcribed. I will also take my own notes. I will only take pictures of your creations not of any students. The pictures will not be used for commercial purposes but may be used in my thesis to illustrate my findings in which case I will ensure they do not infringe privacy.

The audio files will be sent to a transcriber who signs a Confidentiality Agreement. Information collected will be treated in confidence. Only me and my supervisor will see the data. Your name will not be used when I write up the research and comments made in interviews are treated as strictly private and confidential. While I cannot offer anonymity, as we will meet face-to-face, my ethical conduct as a researcher is focussed on doing no harm to my participants. Data will be stored safely on university premises for a period of six years. After this period, the data and data analysis will be destroyed.

What are the costs of participating in this research?

The focus group will take a maximum of 30-45min.

What opportunity do I have to consider this invitation?

I will follow up by email once, in two weeks' time.

Will I receive feedback on the results of this research?

Summaries of the findings will be made available to you.

What do I do if I have concerns about this research?

Any concerns regarding the nature of this project should be notified in the first instance to the Project Supervisor, Leon Benade, leon.w.benade@aut.ac.nz, 09 921 9999 ext 7931
Concerns regarding the conduct of the research should be notified to the Executive Secretary of AUTEK, ethics@aut.ac.nz, (09) 921 9999 ext 6038.

Whom do I contact for further information about this research?



Auckland University of Technology
Private Bag 92006, Auckland 1142, NZ
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www.aut.ac.nz

Please keep this Information Sheet and a copy of the Consent Form for your future reference.

Thank you for considering my request and for your support in making this project possible. If you would like further information, please feel free to contact me or the research team as follows:

Researcher Contact Details:

Sabrina Nagel
Postgraduate Researcher
sabrina.nagel@aut.ac.nz
09 921 9999 ext 6465

Project Supervisor Contact Details:

Leon Benade
Associate Professor
Head of School
Postgraduate Leader
School of Education
Auckland University of Technology
leon.w.benade@aut.ac.nz
09 921 9999 ext 7931

***Approved by the Auckland University of Technology Ethics Committee on 11th May 2023,
AUTEK Reference number 22/441***

Appendix H: Consent Form—Principals



Auckland University of Technology
Private Bag 92006, Auckland 1142, NZ
T: +64 9 921 9999
www.aut.ac.nz

Consent Form – Principals

THIS FORM WILL BE HELD FOR A PERIOD OF SIX YEARS

Project title: Preparing for an enterprising future: A case study of the role of enterprise in New Zealand schools

Project Supervisor: Leon Benade

Researcher: Sabrina Nagel

- I have read and understood the information provided about this research project in the Information Sheet dated 21st Feb 2022
- I have had an opportunity to ask questions and had them answered.
- I understand that notes will be taken during the interviews and that they will also be audio-taped and transcribed.
- I understand that taking part in this study is voluntary (my choice) and that I may withdraw from the study at any time without being disadvantaged in any way.
- I understand that if I withdraw from the study then I will be offered the choice between having any data that is identifiable as belonging to me removed or allowing it to continue to be used. However, once the findings have been produced, removal of my data may not be possible.
- I agree to take part in this research.
- I wish to receive a summary of the research findings (please tick one):
Yes No
- I give permission for the researcher to undertake research within _____
- I give permission for the researcher to take pictures of places or things within the school grounds which are relevant to this study.
- I give permission for the researcher to access the staff / students / employees of _____

Principal's signature:

.....

Principal's name:

.....

Principal's Contact Details (if appropriate):

.....
.....

Date:

Approved by the Auckland University of Technology Ethics Committee on 21st Feb 2022, AUTEK Reference number 21/441

Note: The principal should retain a copy of this form.

Appendix I: Consent Form—Teachers



Auckland University of Technology
Private Bag 92006, Auckland 1142, NZ
T: +64 9 921 9999
www.aut.ac.nz

Consent Form – Teachers

THIS FORM WILL BE HELD FOR A PERIOD OF SIX YEARS

Project title: Preparing for an enterprising future: A case study of the role of enterprise in New Zealand schools

Project Supervisor: Leon Benade

Researcher: Sabrina Nagel

- I have read and understood the information provided about this research project in the Information Sheet dated 21st Feb 2022
- I have had an opportunity to ask questions and had them answered.
- I understand that notes will be taken during the interviews and that they will also be audio-taped and transcribed.
- I understand that taking part in this study is voluntary (my choice) and that I may withdraw from the study at any time without being disadvantaged in any way.
- I understand that if I withdraw from the study then I will be offered the choice between having any data that is identifiable as belonging to me removed or allowing it to continue to be used. However, once the findings have been produced, removal of my data may not be possible.
- I agree to take part in this research.
- I wish to receive a summary of the research findings (please tick one):
Yes No

Participant's signature:

.....

Participant's name:

Participant's Contact Details (if appropriate):

.....

.....

Date:

Approved by the Auckland University of Technology Ethics Committee on 21st Feb 2022, AUTEK Reference number 21/441

Note: The Participant should retain a copy of this form.

Appendix J: Consent Form—Parents/Guardians



Auckland University of Technology
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T: +64 9 921 9999
www.aut.ac.nz

AUT

Consent Form – Parents/Guardians

THIS FORM WILL BE HELD FOR A PERIOD OF SIX YEARS

Project title: Preparing for an enterprising future: A case study of the role of enterprise in New Zealand schools

Project Supervisor: Leon Benade

Researcher: Sabrina Nagel

- I have read and understood the information provided about this research project in the Information Sheet dated 25th Feb 2022
- I have had an opportunity to ask questions and to have them answered.
- I understand that choosing for my child to take part in this study means that my child will participate in a 30-45 min focus group discussion held at the school.
- I understand that a focus group involves a small group of people discussing their views about a certain topic and that my child will be invited to discuss her/his experiences and perceptions of the school.
- I understand that the focus group will be recorded and transcribed and that my child is not obligated to answer any question during the focus group.
- I agree for the researcher to take pictures of my children's creation for the purpose of data collection and to be used in the thesis to illustrate findings.
- I understand that the researcher will not capture children's faces
- I understand that my child can withdraw her/his/their participation in the focus group by leaving the room at any time without giving a reason.
- I understand that even though the researcher will take steps to protect the identities of the participants (use of pseudonyms), anonymity cannot be guaranteed.
- I understand that all data and forms will be held securely for a period of six years and will then be destroyed.
- I understand the findings from the project will be used in a published thesis and as conference presentations.
- I understand that taking part in this study is voluntary (my choice) and that I may withdraw my child/children from the study at any time without being disadvantaged in any way.
- I understand that if I withdraw my child/children from the study then I will be offered the choice between having any data that is identifiable as belonging to my child/children removed or allowing it to continue to be used. However, once the findings have been produced, removal of data may not be possible.
- I agree to my child/children taking part in this research.
- I understand that my child is able to refuse to give assent to take part in this research.



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T: +64 9 921 9999
www.aut.ac.nz

I wish to receive a summary of the research findings (please tick one):
Yes No

Child/children's name/s :

.....

Parent/Guardian's signature:

.....

Parent/Guardian's name:

Parent/Guardian's Contact Details (if appropriate):

.....

.....

Date:

*Approved by the Auckland University of Technology Ethics Committee on 21st Feb 2022,
AUTEC Reference number 21/441*

Note: The Guardian should retain a copy of this form.

Appendix K: Consent Form—Students (Over 16 Years)



Auckland University of Technology
Private Bag 92006, Auckland 1142, NZ
T: +64 9 921 9999
www.aut.ac.nz

Consent Form – Students (over 16 years)

THIS FORM WILL BE HELD FOR A PERIOD OF SIX YEARS

Project title: Preparing for an enterprising future: A case study of the role of enterprise in New Zealand schools

Project Supervisor: Leon Benade

Researcher: Sabrina Nagel

- I have read and understood the information provided about this research project in the Information Sheet dated 27th April 2023
- I have had an opportunity to ask questions and had them answered.
- I understand that identity of my fellow participants and our discussions in the focus group is confidential to the group, and I agree to keep this information confidential.
- I understand that notes will be taken during the focus group and that they will also be audio-taped and transcribed.
- I understand that taking part in this study is voluntary (my choice) and that I may withdraw from the study at any time without being disadvantaged in any way.
- I understand that if I withdraw from the study then, while it may not be possible to destroy all records of the focus group discussion of which I was part, I will be offered the choice between having any data that is identifiable as belonging to me removed or allowing it to continue to be used. However, once the findings have been produced, removal of my data may not be possible.
- I agree to take part in this research.
- I wish to receive a summary of the research findings (please tick one):
Yes No

Participant's signature:

.....

Participant's name:

Participant's Contact Details (if appropriate):

.....

.....

Date:

Approved by the Auckland University of Technology Ethics Committee on 11th May 2023, AUTEK Reference number 22/441

Note: The Participant should retain a copy of this form.

Appendix L: Interview Questions

Interview questions

The aim of my study is to examine how enterprise has been conceptualised and promoted in a New Zealand school's context. In this interview, I wish to gain an understanding of how you understand, value and promote enterprise within your school context. I'm also particularly interested in how you experience enterprise yourself and I would like to find out what learning we can extract from that.

My first set of questions is about your understanding of the concepts and how you value them.

1. How do you define enterprise vs entrepreneurship?
2. Which definition resonates more and why?
3. Why do you embrace enterprise?
4. How do you value these concepts? How important do you think these concepts are?
5. Do you enjoy (teaching) it?

My next set of questions will ask how you embrace enterprise within your class/school.

6. How do any of these concepts show up in you class/school?
7. What does it look like? Describe a typical day/lesson that includes enterprise.
8. How did you come up with some of the ideas you are implementing in the classroom?

My next set of questions relate to The New Zealand Curriculum.

9. Were you aware of where in the curriculum enterprise shows up?
10. Are you aware of the TKI resources or any other resources that help you embrace enterprise more?

My final questions will tease out some of your learnings and what you think could be done to embrace enterprise skills more.

11. What could help you or your school embrace it more?
12. What works and what does not?
13. Are there any final comments you would add that you think may have been missed?

I would like to thank you for your generous offer of this time we have spent together. Thank you for sharing your expertise and experience.

Appendix M: Focus Group Protocol

Focus group protocol

Why: The researcher would like to gain insights from children on how they experience enterprise within their school

How: Insights will be gained in a playful way by playing a diamond ordering game. This activity will be highly customised to each school dependent on insights gained from teacher interviews.

What: Students will play a diamond ordering game, where they will rank phrases or pictures they associate with enterprise based on importance or what they like best.

How long for: 30-45min

Ahead of the focus group:

1. Researcher will analyse insights gained from interviews with teachers and prepare envelopes with words/phrases or pictures representing how they embrace or experience enterprise within their school environment
2. Ideal number of participating children is 4-6, if more volunteer two separate focus groups will be run
3. Researcher will organise some healthy snacks for during the focus group, for example fruit and veggie sticks and crackers.

Examples of words/phrases and pictures students will find in the envelopes:

1. This was hard but worth it.
2. This was hard, I don't want to do it again.
3. I loved it.
4. Market Day
5. Choice
6. Passion
7. Learning
8. Time
9. Perseverance/ not giving up
10. Teamwork
11. Mistakes
12. Skills
13. Picture of:
 - a. A heart
 - b. A smiley 😊

Running the focus group on the day:

1. Researcher and teacher will walk children from class into the room where the focus group will take place

2. Researcher will introduce the topic, timeframe and how the focus group will run and answer any questions (5min)
3. Researcher will split the group into pairs or groups of 3 and hand out one envelope per group
4. Children will get introduced to the diamond ordering game and researcher will demonstrate how it works on the whiteboard (5min)
5. Children will be given 15-20min to order their phrases/pictures.
6. Researcher will discuss the activity and what children are choosing with the children as they are doing it.
7. Children will come together as a whole group to discuss results (10-15min)
8. Children will be reminded to keep discussion confidential beyond the focus group
9. Researcher will take notes and might audio-record it

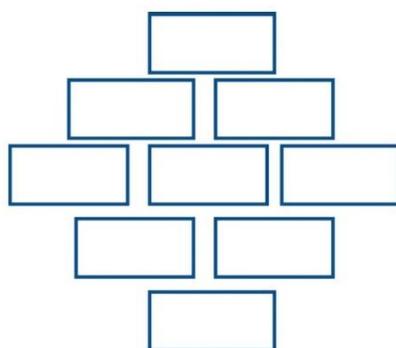
At the conclusion of the focus group:

1. The constructed diamonds will be photographed to help memorisation of what happened but also to include in the thesis if it enhances it.
2. Children will receive a little thank you card.

Appendix N: Description of Diamond Ordering Game

Description of diamond ordering game

As I mentioned, I am a researcher and the word I am interested in is called 'enterprise'. Some people think it means starting a business such as making something and selling it. Other people say it means being a good problem solver and thinking critically. I would really love to find what you think it means and how you are experiencing it at school. There are no right or wrong answers but to make it easier for us to make sure we are talking about the same things I have talked to your teachers first and they told me what they think enterprise is and where it shows up here at the school. I have written their answers on pieces of paper and now I would really like to find out from you what you think. So I have prepared a little ranking game. The game is called the diamond game and it goes like this:



I am going to put you into groups of 2 or 3 and I have prepared envelopes with pictures/sentences on them and I would like you to order them and make a diamond shape so the most important/most enjoyable up the top and the least important/enjoyable right at the bottom. As you order them, I would like to go around and ask you why you put each picture/sentence where you did and I will make notes so I will not forget.

After about 10-15min, we will come back together as a big group and discuss why we have chosen what we have chosen and if it is ok I would like to take photos of your creations so I can remember them but also to show others what is important to you.

Appendix O: Diamond Ordering Game Protocol

Diamond ordering game protocol

Why: Insights will be gained in a playful way by playing diamond ordering game.

How: Researcher will analyse insights gained from interviews with teachers and prepare envelopes with words/phrases or pictures representing how teachers embrace or experience enterprise within their school environment. The children then rank these phrases or pictures in order of importance or how much they like them. This depends on what the phrases are. This activity will be highly customised to each school dependent on insights gained from teacher interviews.

Possible ideas for pictures:

- The school vegetable garden
- A special woodwork or similar room
- Ideas board
- School stage
- School hall

Possible ideas for words/phrases:

- Market stall
- Project
- Teamwork
- Brain storming
- Selling something
- Confidence

In choosing what to include in the envelopes, the researcher will:

- Look for patterns; for example, if more than one teacher mentions the same word or point to the same area of the school, it will be weighted higher than a word only mentioned once.
- Consolidate similar words/pictures and only pick one.
- Look for a variety of words/pictures to include

Appendix P: Transcriber Confidentiality Form



Auckland University of Technology
Private Bag 92006, Auckland 1142, NZ
T: +64 9 921 9999
www.aut.ac.nz

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Confidentiality Form – Transcriber

Project Title: Preparing for an enterprising future: A case study of the role of enterprise in New Zealand schools

Date Information Sheet Produced: 21st Feb 2022

Project Supervisor: Leon Benade

Researcher: Sabrina Nagel

THIS FORM WILL BE HELD FOR A PERIOD OF SIX YEARS

- I understand that all the material I will be asked to transcribe is confidential.
- I understand that the contents of the digital recordings can only be discussed with the researcher.
- I will not keep any copies of the transcripts nor allow third parties access to them.

Transcriber's signature:

.....

Transcriber's name:

Transcriber Contact Details (if appropriate):

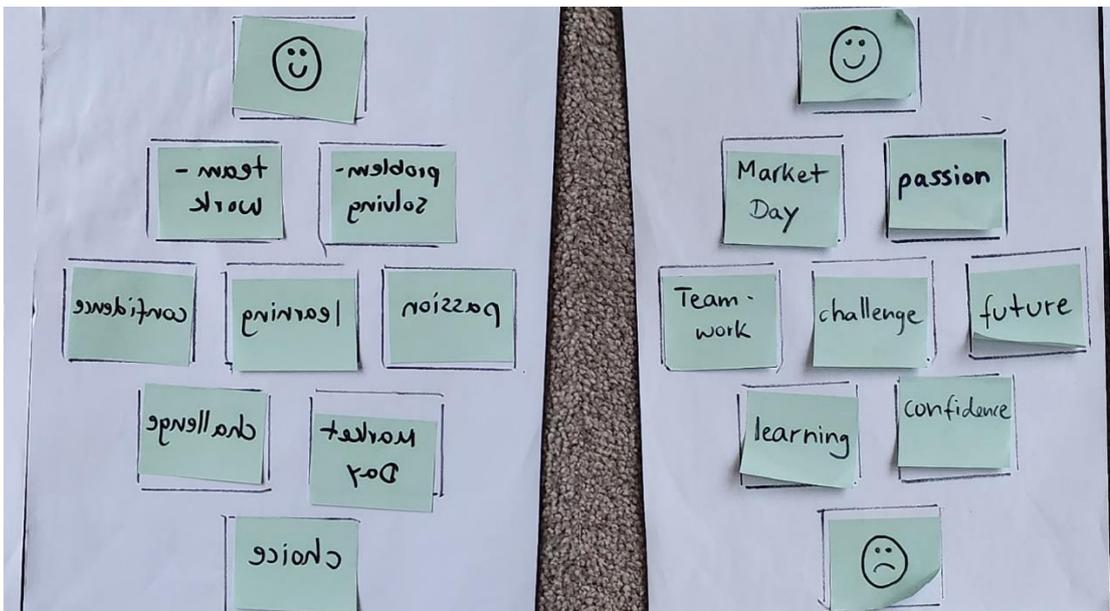
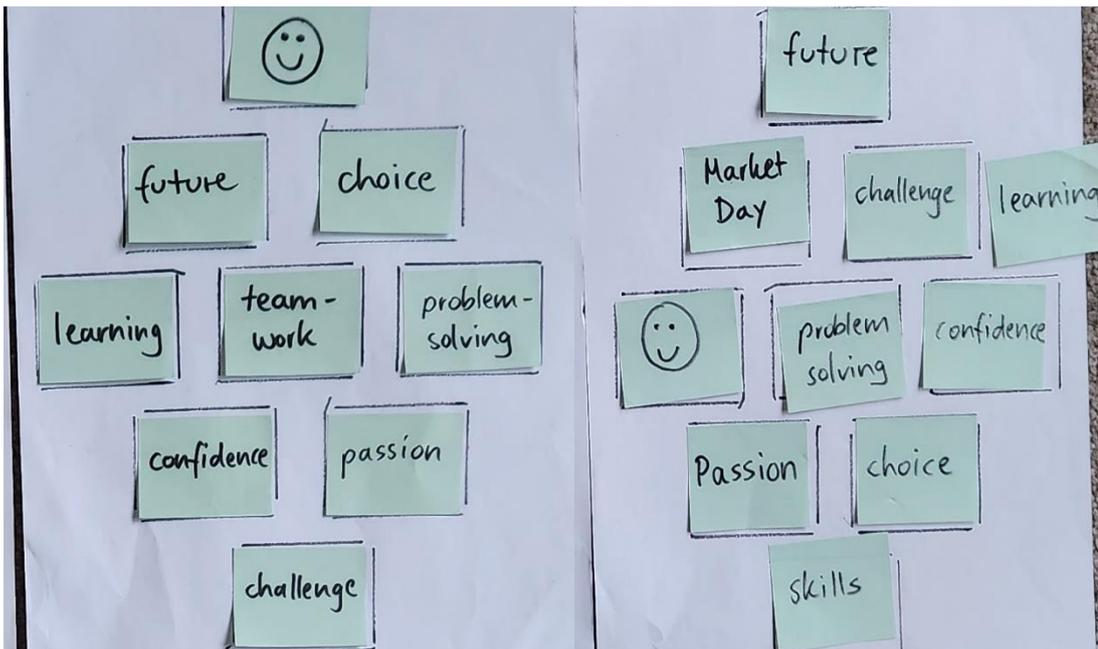
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Date:

**Approved by the Auckland University of Technology Ethics Committee on 21st Feb 2022,
AUTEK Reference number 21/441**

Note: The Transcriber should retain a copy of this form.

Appendix Q: Pictures of Diamond Ranking Activity with Children



Appendix R: Poster to Recruit Teachers



AUT

INTERESTED IN TAKING PART IN RESEARCH??

FIND OUT MORE ABOUT WHAT IS INVOLVED
AND HOW TO PARTICIPATE

THE ROLE OF ENTERPRISE IN NZ SCHOOLS

Share your experiences of embracing enterprise within your school environment.

JOIN US FOR MORNING TEA TO FIND OUT MORE

x(insert date)
(insert time) onwards in the staff room

For more information, please contact Sabrina Nagel
sabrina.nagel@aut.ac.nz