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How can the secondary school learning model be adapted to provide for more meaningful curriculum integration?

A thesis

submitted **in fulfilment**

of the requirements for the degree

of

Master of Education

at

The University of Waikato

by

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THE UNIVERSITY OF
WAIKATO
Te Whare Wānanga o Waikato

2013

ABSTRACT

Interest in curriculum integration (CI) has resurged in recent years as schools seek to bring together knowledge from separate curriculum areas to create a more holistic and integrated learning experience for students and as a means to address the demands of ‘twenty-first century’ learning. As the educational sciences deliver new research on the role of the arts in cognitive development, educators are also refreshing their perspective on what is termed ‘arts integration’ – that is, “the effort to build a set of relationships between learning in the arts and learning in other subjects of the curriculum” (Deasy 2003, p. 2).

There is significant research from the primary school sector surrounding the implementation of CI and suggested approaches and models for doing so; however, there is a need for this type of research within the secondary school sector. There also appears to be very little research in New Zealand (NZ) regarding arts integration and the particular approach to CI. Much of the research hails from the United States of America and is pitched at a primary or intermediate level. This study aims to help bridge the research gap into whether it is possible to implement a model of arts integration (and subsequently CI) in the NZ secondary school sector, and make suggestions as to how the secondary school learning model could be adapted to provide for more meaningful CI. This study primarily looks at the potential to introduce an Arts Integration model, namely ‘arts integration as collaborative engagement’, firstly at an Arts level, advocating that it should be wider than the arts.

The participants in this study include six International Baccalaureate (IB) students (all aged seventeen) taking dance, music, or visual arts and three teachers (one music, one visual arts one dance). The students worked collaboratively in pairs, with the teachers adopting the role as facilitators in the project. Although the IB model is used for the context of this study, this model is relevant and could be adapted to suit any curriculum.

A thematic analysis helped identify the overarching themes evident from the data collection process, suggesting the key aspects contributing to the collaborative experience are compromise, a different approach to learning, real world application, and personal gain and empowerment.

The findings from this study indicate that collaborative learning became a powerful strategy for enhancing student's social and motivational skills, specifically that of compromise. For a Curriculum Integration model to succeed in secondary schools there needs to be a paradigm shift in the way that secondary schools structure their timetables and their learning environments. It is time to adjust the systems to create learning environments for the twenty-first century learner and ensure our young people can become "confident, connected, actively involved, lifelong learners" (Ministry of Education, 2007, p. 7).

ACKNOWLEDGEMENTS

"An investment in knowledge always pays the best interest" - Benjamin Franklin

I dedicate this thesis to my gorgeous daughters who even before they arrived in this world inspired me to continue on my educational journey and fulfil my dreams and aspirations. Ensuring that all I do is to give them the best in life and make them proud has always been a significant goal in my growth as a mother and educator.

This is also dedicated to my mum who has been my number one supporter, babysitter and editor. She may not have ever graduated with her own qualification but she deserves to wear this cap and gown with me and I thank her for always being proud of all my efforts. I'd also like to thank all the other people who volunteered to read and offer me feedback.

Part of this research involves two teachers who journeyed with me through this project. They generously shared their time and passion for the arts and instilled my vision modestly with their students. Alongside these teachers are a group of innovative, creative and inspiring young students who generously shared their work and reflections throughout this process. Without their enthusiasm, this would not have been possible.

My sincere thanks also go to my supervisor Anthony Fisher. I can't thank you enough for your calming nature, support, time, expertise, guidance, overall encouragement, and not to mention the many coffee dates. I hope we can catch up over a cappuccino and flat white in the future.

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CHAPTER 1: INTRODUCTION

Curriculum Integration (CI) is an established method of teaching showing variable popularity over many years. More recently, schools' developed approaches which aimed to bring together knowledge from separate areas in an attempt to create a more holistic and integrated curriculum experience for students. This resurgence appears to have happened because of recent developments in the NZ Curriculum (NZC). NZC is the foundation for teaching in NZ. The document places an importance on creating life-long connected learners. The overall vision of the NZC is to develop "young people who will be confident, connected, actively involved, lifelong learners" (Ministry of Education, 2007, p. 7). This statement has strong links to integration, in particular the words 'connected' and 'actively involved' link with the characteristics of CI described further in Chapter Two of this study.

Primary teachers, regarded as generalists in the education sector, have willingly accepted integration approaches in their practice. However, secondary school teachers, regarded as subject specialists, have been less willing to do so. Regardless of the statements made in the NZC, many secondary schools are still encouraging teachers to operate in isolation to their colleagues and there is a resistance towards implementing an approach like this due to a number of pragmatic reasons suggested in Chapter Two.

Due to the resistance and pragmatics of it, there needs to be a great deal of thought to find a suitable model for implementation in secondary schools.

Several approaches towards CI and various models have been established within Chapter Two of this study. One of these approaches is described as arts integration. Deasy (2003) refers to arts integration as "the effort to build a set of relationships between learning in the arts and learning in other subjects of the curriculum" (p. 2).

Gibson and Ewing (2011), Catterall and Waldorf (1999), Deasy (2002), and Fiske (1999) all believe that the arts subjects are central to the development of the human being. These international researchers have proven that the arts subjects make a unique contribution to students' lives, learning and ability to be creative thinkers. One of the specific models of arts integration presented in Chapter Two and subsequently used as the basis for this study is "Arts integration as collaborative engagement" (Burnaford, Brown, Doherty & McLaughlin, 2007, p.14).

This particular model is an adaptable collaborative model proven to work in the arts field and could transfer to other subject areas in secondary schools. Beginning the integration process at an arts level in a secondary school provides a way of adapting the traditional secondary school learning model. Although it starts with the arts, the hope is that this study will provide motivation for other subject collaborations and result in more meaningful CI experiences across the curriculum areas within a secondary school context.

This study aims to help bridge the research gap into whether it is possible to implement a model like arts integration and subsequently CI in the NZ secondary school sector.

The focus of this qualitative research addresses the question: *how can the secondary school learning model be adapted to provide for more meaningful curriculum integration?* Alongside this question, there were a number of sub questions, which included:

- What would be the advantages for students?
- What partnerships were established with different curriculum areas and what impact did these have?
- How would you describe the processes you undertook as part of this experience?

Outline of chapters

Chapter Two outlines literature on CI. This review attempts to define CI and the two different types of integration that exist within the literature,

namely subject-centred and student-centred CI with relevance to its historical and modern day contexts. The second part of the review focuses on changes to arts integration classified under the subject-centred category. The second section provides specific detail on arts integration, presenting some relevant models and research. Finally, the arts collaboration model is the focus of this study.

Chapter Three outlines the methodology. It describes the exploratory research design selected for this study – thematic analysis. The remaining methods used to attempt to answer the research question are outlined, along with clarification of the reasons why these have been selected. This section also gives an outline of the data interpretation and analysis process, a discussion of the participants, data collection methods and transcription, reliability and validity, a data analysis plan, and ethical considerations.

Chapter Four presents the findings reported using a narrative approach with key themes from the data analysis identified through thematic analysis. In order to bring the participants' perspective to the study, rich descriptions are outlined under each of the theme headings ('compromise', 'a different approach to learning', 'real world application', and 'personal gain and empowerment'). These descriptions include key pieces of evidence from multiple sources (questionnaires, field notes, focus group, and semi-structured interviews) to support these themes along with direct quotations from participants.

Chapter Five discusses the findings from Chapter Four, in particular the overarching theme of compromise. A diagram is presented to illustrate the relationship between the theme of compromise and the factors that have influenced it (temperament, SILOS, and facilitation). Each of these aspects is defined and discussed in relation to the findings throughout this chapter. Literature from Chapter Two has also been highlighted to provide further support and clarification. The chapter concludes with a discussion around the relationship between the three factors.

The final chapter, Chapter Six, presents a discussion on limitations, implications and recommendations. Limitations are outlined, followed by the presentation of implications and recommendations, which are made in light of the findings discussed. The chapter concludes with a discussion around how curriculum integration could succeed in secondary schools and provides some suggestions for future research.

Given that action research is a powerful tool for change and improvement one would hope that by carrying out this study and aiming to bridge the gap between research and practice, secondary schools could look at how their learning model could be adapted/changed to provide for more meaningful CI.

CHAPTER 2: LITERATURE REVIEW

Introduction

In order to investigate the research question: *how can the secondary school learning model be adapted to provide for more meaningful curriculum integration?* a thorough literature review, which provides a basis for the study, is required.

Curriculum Integration (referred to in this paper as CI) is defined, along with some of the debate among literature, in relation to its raft of connected definitions. The historical background of CI is looked at alongside its two major categories, subject-centred and student-centred integration. Further to this, modern-day theorists are also introduced and discussed along with the benefits of CI, and some models from NZ secondary schools are presented.

The second part of this review shifts its focus towards arts integration, classified under the subject-centred category. Much like the term 'integration', arts integration also lacks consensus; therefore the various definitions and models are discussed with reference to the literature. Further to this, research into arts integration and its benefits are presented along with its possible application in secondary schools.

Defining Curriculum Integration (CI):

CI occurs when "components of the curriculum are connected and related in meaningful ways by both the students and teachers" (Alberta Education, 2007, p.1); however, there is much debate surrounding the definition. The term itself has a raft of connected definitions but according to literature, they lack consensus and consistency (Beane, 1997; Czerniak, Webber, Sandman, & Ahern, 1999; Fraser, 2000; Gehrke, 1998; Hinde, 2005; Kysilka, 1998). Gibson and Ewing (2011) consider CI an umbrella term; however, generally it is considered a curriculum approach based on both philosophy and practicality which "purposefully draws together knowledge, perspectives, and methods of inquiry from more than one discipline, to develop a more powerful understanding of a central idea, issue, person, or

event” (Parker, 2005, p. 452). However, the true essence of CI is not to ignore the separate disciplines but attempt to connect them.

Many educationalists have attempted to define their interpretation of CI, including Susan Drake, Heidi Hayes Jacobs, James Beane, and Gordon Vars, who refer to terms such as discipline (Piaget, 1972), integrated, thematic/multi-disciplinary, interdisciplinary (Drake, 1998; Jacobs, 1989), shared, fusion, infusion (Fogarty, 1991), Correlation (Vars, 1987), and cross-curricular (Barnes, 2007). It has also been suggested that varying models of integration can be placed on a continuum (Brown & Nolan, 1989; Hinde, 2005; Jacobs, 1989; Alberta Education, 2007), with student-centred approaches at one end where students become the important factor in the development of the curriculum and learning; and subject-centred approaches at the other where the subject or discipline knowledge is the important factor.

Historical background of Curriculum Integration:

The background of student-centred CI dates back to Dewey’s work at the Chicago Experimental School in the late nineteenth century. Dewey (1916, 1936, 1938, as cited in Brough, 2010) believed that the educative process should be viewed as a whole and that the process begins with the child. He presented a revolutionary student-centred curriculum which promoted a holistic approach by ensuring that the experiences were the focal point. This would often begin with a personal or social issue. He also emphasised the idea of “learning through doing” which made the learning more meaningful because the learners made connections concerning the subject and the learning process (Brough, 2010). Dewey also believed that the stimuli used in the learning experience should have some connection to a student’s previous knowledge to help them gain a better overall understanding of their learning. The historical background of student-centred curriculum links back to Dewey and Parker. Brough (2010), Vars (1991), and Hinde (2005) state that Dewey and Parker founded the student-centred curriculum movement in the 1880s and early 1900s as part of the progressive educational philosophy. This philosophy aimed to focus on the importance of a child’s overall social development

and came about as a reaction to the traditional styles of teaching. Contemporary perspectives began to develop when educators like Piaget (1972), Vygotsky (1978) and Bruner (1960), who all share a holistic view of learning, and ideas concerned with children understanding concepts and structures, drew on the work of Dewey and Parker.

The background of the subject-centred curriculum, as referred to by Dowden (2007a), Grossman, Wineburg and Beers (2000), “can be traced back to the Herbartian perspective of correlated curriculum developed in the late nineteenth century. Herbartians were educational reformers who subscribed to the German philosopher Johann Herbart’s theories...this gave rise to the concept of correlation across disciplines” (as cited in Brough, 2010, p. 8). Different correlation methods were explored during the late nineteenth century which saw a wave of multi-disciplinary or thematic units created in schools.

Internationally thematic teaching is generally referred to as multi-disciplinary and is a term adopted by several theorists. This model involves a combination of several disciplines focused on one problem with no direct attempt to integrate (Piaget, 1972 and Meeth, 1978 as cited in Jacobs, 1989, p. 8). In this respect, the disciplines are taught separately and retain their subject boundaries but aim to assist in contributing to the overall theme or topic (Gibson & Ewing, 2011, p. 17). In this approach, teachers guide students to see connections between subject areas and different disciplines used to explore a problem, theme, dilemma or issue.

There is much debate within the literature as to whether or not multi-disciplinary/thematic units are considered a form of CI. Fraser (2000) is one of these theorists. She points out that many teachers often confuse thematic teaching with CI. Fraser is a strong advocate for a student-centred approach in that she believes authentic integration begins with, as Beane (1997) refers to, a personal or social issue of concern and is fully negotiated with the student/s and the teacher. Fitzgerald (2001) also makes links to the student-centred curriculum and Herbart’s theories by referring to the idea of a child’s learning beginning with their own

experiences of the world. She reiterates that the way children learn best is by being able to compare new and old concepts and ideas and work towards making connections between these by considering their similarities and differences. Her ideas are fundamental to the core essence of CI.

Fraser (2000), Beane (1997), and Fitzgerald (2001) are all strong advocates for a student-centred approach and believe that CI should actively involve students by using problems and issues of importance to them rather than keeping to the confines of stand-alone subjects.

Modern day theorists:

Integration was quiescent for nearly two decades. During the 1980s and 1990s there was much disappointment among theorists because integration lost favour to some of the more conservative approaches that were beginning to develop in education due to neo-liberalism, for example, literacy and numeracy. "In the latter part of the century, Beane (1995) reasserted Dewey's call for the curriculum to be more applicable to the lived experiences of students" (Hinde, 2005, p.106). Beane (1995) strongly believed in creating a curriculum for and with young people. To do this he emphasised that educators needed to start by looking at the problems, issues, and concerns of life as it is being lived in a real world. The selection of the themes related to these real world concerns should be designed by drawing on subject and discipline knowledge in an attempt to "broaden and deepen our understanding of ourselves and our world" (Beane, 1995, p. 616).

Beane's theory, as described in his 1997 text and drawn on in Pigdon and Wolley (1993) and Gibson and Ewing (2011), involved four interrelated categories: the integration of experience, social integration, the integration of knowledge, and integration as a curriculum design. Integration of experience involves new experiences becoming part of our existing knowledge and ways of seeing things. These new experiences help us understand and solve new problems. Social integration is where the learners apply the ideas and understanding they have developed to their

daily lives and to the lives of others, and therefore learning by interacting with others. The integration of knowledge and skills is where students begin to see knowledge, skills, and values connected. This encourages them to see the big picture of learning. They can then more easily make connections and apply their knowledge. Integration, as curriculum design, encourages students and teachers to explore, gather, process, refine, and present information about the topics they want or need to investigate while not being constrained by the boundaries of subjects.

Dowden and Nolan (2006) refer to the term integration as following a student-centred approach. They refer to this as the 'integrative curriculum' or IC. They outline the main design characteristics of the IC model based on "thick ethical principles which reflect its student-centred focus" (Dowden and Nolan, 2006, p.7). This approach takes on a strong student focus where students share just as much power as their teacher, collaboratively planning and implementing learning that is personally meaningful to the learner, and is of substantive value to society. Because of this, the learning becomes a holistic experience for the students which help to form parallels between the curriculum and aspects of the social context. The benefits of this model are that students are seen as individuals who have different educational needs, are actively involved in the learning process, allow their voices to be heard, and provides them the opportunity to work alongside others in the class and with the teacher using a variety of strategies and creative ways of doing.

The impact of collaboration alongside others means that students are able to develop a unified view of the curriculum and broaden the context of their learning beyond single subject areas. It also allows students the opportunity to build on prior knowledge and experiences and share this knowledge and experience with others.

However, not all educationalists share the same views as Beane, Dewey, Dowden and Nolan. Theorists who discuss aspects of integration from a more subject-centred approach include Jacobs (1989) and Drake (1998)

and they are central to the development of integration during its resurgence.

Jacobs (1989) is one of the most renowned theorists for her work around the thematic/multidisciplinary and interdisciplinary curriculum approach whereby the teaching focuses on a topic pre-planned by the teacher. Jacobs (1989) examined various models and approaches to interdisciplinary design outlining that the teacher should be empowered to work as a designer, and to shape and to edit the curriculum according to the students' needs. The need for both interdisciplinary and discipline fields to work together was an integral aspect of her work.

Wilkinson (2010) supports Jacobs in discussing how teachers should not only design programmes in their own subject areas but also make connections to other learning experiences for their students. Making alliances with colleagues in other subjects, developing shared ideas about what students should be able to do by the time they leave school, and planning together can result in ensuring that there is significant enhancement in the students' learning experiences. Illingworth (2010) reinforces the point that teachers need to stop being so self-indulgent in their own subject areas, and that we no longer need to continue to operate in "splendid isolation" (p.43) and start becoming more enthusiastic about making worthwhile alliances with other subjects and curricular approaches. The idea of the approach of cross-curricular learning is that students can still be successful within a subject but that this can be better achieved through a cross-curricular alliance. Vars's (1987) integration model of correlation links with what Wilkinson and Illingworth suggest. Correlation is where teachers from several subject disciplines get together and plan using a central theme (Vars, 1987). This model links with Wilkinson and Illingworth's views in that it is a model that could be used to encourage connections and collaborations between other subject areas and teachers.

Further literature around CI shows that subject centred approaches can occur within subject areas (intradisciplinary), between subject areas (interdisciplinary and multidisciplinary), or beyond subject areas

(transdisciplinary). These differences have caused much confusion and complexity as alluded to earlier in the discussion related to multi-disciplinary and thematic units. One of the key phrases used in the literature is 'integration', where there is no separation of the different disciplines, for example, the learning experiences all focus on the central theme, question, or issue. Integration works towards merging subjects or disciplines together by taking away the 'boundaries' between subjects in an attempt to cross over concepts or skills (Gibson & Ewing, 2011). The terms interdisciplinary and transdisciplinary appear frequently in the literature. Jacobs (1989) considers these terms knowledge-based views because of the way they deliberately use specific methods, language, and approaches from more than one discipline to focus on a central theme, issue, problem, topic, or experience. The disciplines are separated to a certain extent and the question, theme, problem or issue is structured in a way to reduce the boundaries (Gibson and Ewing, 2011). Two further models that are used as methods of implementation include cross-disciplinary and correlation (mentioned earlier). Cross-disciplinary is a model in which one discipline is viewed from the perspective of another, for example, the physics of music (Meeth, 1978), whereas Correlation on the other hand is a collaborative approach. Although all models have their own benefits the preferred method for the context of this study and in particular for secondary schools is the interdisciplinary and transdisciplinary models. This is thought to be the case because of the ability these models have to allow integration but also enable subject areas to maintain their separate status.

All of these modern day theorists hold views on education that make links to recent developments in our NZC (2007). The NZC (2007) is the foundation of our teaching here in NZ; the document places an importance on creating life-long connected learners. The overall vision of it is to develop "young people who will be confident, connected, actively involved, lifelong learners" (Ministry of Education, 2007, p. 7). This statement has strong links to integration, in particular the words 'connected' and 'actively involved' link with the characteristics of CI, namely the drawing together of knowledge from across disciplines and the

links to Beane's views on student-centred learning. Further links are seen later in this review in relation to the words 'connected' and 'life-long learners' when discussing some of the benefits of integration.

Shrimpton and Godinho (2008) discuss how primary school teachers, who are seen as generalists in education, have willingly accepted integration approaches in their practice. However, secondary school teachers, who are seen as subject-oriented, have been less willing, "seeing their role as gatekeepers acting to ensure that discipline knowledge is not devalued, diluted or subsumed" (p.3). Shrimpton and Godinho (2008) also note that there has also been resistance towards integration attributed to pragmatics, such as timetabling, challenges of crossing subject boundaries to create cohesiveness, the insecurity of abandoning textbooks, the complexity of designing assessment tasks across subjects, the lack of professional development to support teachers in integrative curriculum planning processes, and the political climate. NZ experiences these same issues related to pragmatics. Some of these include the push of literacy and numeracy, requirements of teaching to standards put in place by government bodies such as NZ Qualifications Authority (NZQA), and requirements put in place by schools for reporting to parents. Although there appears to be no literature within the NZ secondary school setting to support this it would appear that these factors hinder the potential development of integration because there are so many other aspects to consider and expectations to meet.

Benefits of Curriculum Integration:

With both the student and subject-centred approaches examined, it is fair to say that each has benefits in terms of student learning. Advocates of both approaches favour an integrated approach in comparison to a subject specific approach for several reasons. Integrated approaches give students a wider range of curriculum experiences, create a less fragmented learning approach, and create better connections to the real world.

The advantages of the subject-centred curriculum approach over a single-subject delivery are discussed by Jacobs (1989). One of the points raised in Jacobs (1989) is that many students cannot see the relevance of their class work in their lives outside of school. In her writing she discusses how many students struggle to understand why they need specific subjects when there is little link to its application in the real world.

Alberta Education (2007) categorises the benefits of integration into the following categories: allowing flexibility, building on prior knowledge, unifying learning, reflecting on the world, and matching the way students think. The idea of allowing flexibility links to the subject-centred approach in that the flexibility of integration allows teachers to plan for the development of key skills and understandings that go beyond individual subjects. The second area involves reflecting on the 'real world'; when curriculum is organised in a holistic way which is a student-centred approach and one that better reflects the real world and the way children learn at home and in the community. This idea supports a holistic view of the world in line with Beane's views, creating more meaningful learning in the mind of the learner. This also links to the idea of matching the way students think. Broudy's (1977) brain research (as cited in Bransford, Brown, and Cocking, 2000) supports the idea that students take in many things and process and organise them at one time. Teaching ideas holistically, rather than in fragmented pieces, better reflects how students' brains process information. The result of this processing of information brings together students' learning, enabling them to develop a unified view of the curriculum and broaden the context of their learning beyond single subject areas. Finally, the idea of building on students' prior knowledge and experiences by making meaningful connections among subject areas helps students build or layer this previous knowledge.

Specific research on CI and its benefits in a secondary school setting here in NZ appears to be scarce; however, two examples are the Freyberg project (Nolan & Mckinnon, 1991) which began in 1986 as a four-year project, and Alfrison College (Locke, 2008).

Freyberg High School is a decile 6 secondary school in Palmerston North, NZ. Its Integrated Studies programme was initially part of a research programme funded and staffed by a joint agreement between IBM, Massey University, the Education Department and Freyberg. The research study ran from 1987 to 1989 and followed a subject centred approach and an interdisciplinary curriculum whereby the teaching focuses on a topic pre-planned by the teacher. The first integrated studies course implemented at Freyberg combined biology, computer studies, English and geography. The elements were drawn together around a central theme: preservation and management issues confronting NZ National Parks. That theme was the common thread that bound the subjects together to create the programme. When the project initially started in 1987, there were 65 Year 9 students in two integrated classes, and one Year 12 class taking Environmental Studies. By the end of the research programme in 1989 there were three Year 9 Integrated Studies classes, three Year 10 Integrated Studies classes and one Year 12 class studying Environmental Studies. Following the research programme Integrated Studies became an approach to learning for all students within the junior school at Freyberg due to the positive outcomes that came from the research. What became particularly apparent to the school was the ease in which the curriculum could be incorporated into a theme-based curriculum. Developments in the Integrated Studies programme at Freyberg resulted in each Integrated Studies class being taught by the one teacher (each class therefore spends seven to eight hours per week with that teacher), integrating a significant portion of the health programme into the Integrated Studies syllabus, and greater emphasis placed on the development of students' Information communication technology (ICT) skills.

Locke (2008) discusses a model of integration at Alfriston College. Alfriston College is a decile 3 school in Auckland, NZ. Its model follows a collaborative planning process, comparative to that of Vars's (1987) model of correlation because it fosters support and guidance in the fact that it uses an integrated planning approach. Locke (2008) presents a number of benefits to this approach which mirrors the benefits presented earlier in

this review. These include exposing students to integrated thinking and learning, with heads of learning meeting regularly to collaboratively plan, subject leaders and teachers gaining insight into exactly what goes on in other subjects, and identifies opportunities to avoid overlap. It also establishes a professional learning community whereby it gives teachers the chance to have ongoing, meaningful conversation with each other about interesting ideas, about how children learn, and ways to improve their classroom practice. The process of school-wide collaboration fosters a culture of collaboration and mutual understanding.

There is no evidence of what has happened since the Freyberg study; however, there is evidence through their school website that the integrated studies programme is still running. This is also the case with Alfriston. There appears to be a research gap within NZ related to integrating the curriculum in secondary schools. Most of the literature appears to specifically relate to primary schools and the student-centred curriculum.

Defining arts integration and presenting some models:

In this review so far the two categories of integration have been outlined along with a number of the benefits. The focus now shifts to arts integration classified under the subject-centred category. Deasy (2003) refers to arts integration as “the effort to build a set of relationships between learning in the arts and learning in other subjects of the curriculum” (p. 2). Therefore, arts integration could be described as a system for mapping or weaving knowledge. Arts integration, much like the term ‘integration’, lacks consensus on any one definition within the literature. The term ‘arts integration’ has evolved over the past 15 years as schools, arts councils, and arts organisations have experimented with various models of implementation. Using the arts as a method of integration could be considered a ‘fresh perspective’ to integration and one that supports the idea of developing the student holistically. Using the arts subjects of dance, drama, music, and visual arts, as the focal point for integration is referred to within the literature as ‘arts integration’. Theorists like Dohrer (2001), who see any endeavour of implementing integration

being a way to develop greater coherence, would celebrate this method of integration.

Burnafor et al. (2007) suggest there is some confusion in arts integration literature surrounding the terms integration and interdisciplinary. This is due to the Consortium of National Arts Education Associations (2002) document *Authentic Connections: Interdisciplinary Work in the Arts*. The purpose of the document was to “assist and support educators in interdisciplinary work and to clarify how the arts can be taught with integrity through the interdisciplinary arts content standards” (p. 3). The definition posed for interdisciplinary education also echoes definitions for current arts integration practice and aligns with Jacobs (1989): “Interdisciplinary education enables students to identify and apply authentic connections between two or more disciplines and/or to understand essential concepts that transcend individual disciplines” (p. 3). Because the consortium chose to use the term interdisciplinary, arts specialists have used the term for programmes and curriculum that could also be labelled integration. Therefore, having a working knowledge of integration terms is useful when defining arts integration.

Burnafor et al. (2007) present three different approaches to arts integration. Firstly, “Arts integration as learning *through* and *with* the arts” (p.12) which involves the transfer of learning between the arts and other subjects, and how learning can occur in other subjects in and through the arts. Specific arts concepts and skills could be transferred to other content concepts, and skills. This could be considered a cross-disciplinary approach because the arts are viewed from the perspective of another subject. Secondly, “Arts integration as a curricular connection process” (p.13) which involves connecting certain aspects of the art/s curriculum across other curriculum subjects. Focusing on a ‘big idea’ or ‘shared concept’ in relation to the curriculum assists in creating a more unified approach to curriculum. Dunn (1995) also discusses a similar model, referring to it as “integrating the arts model” (p.34), which fits more appropriately with the more generalised terms of integration discussed earlier in this review. This approach is an interdisciplinary approach

because methodology and language from more than one discipline is used to examine a central theme, issue, problem, topic, or experience. The disciplines retain some separation and the question, theme, problem or issue is organised to reduce the boundaries. Burnaford et al.'s (2007) third approach is "Arts integration as collaborative engagement" (p.14) which is often defined as a process of collaboration which could involve in-school arts specialists, music or art teachers, and classroom teachers. Booth (2003) suggests there is a need for a teaching artist from the community to fulfil this collaborative engagement. McFee and Degge (1977) and Neperud (1995) support this approach in their literature in discussing the importance of collaboration and community involvement. This could link with the shared model of integration because collaboration fits the idea of shared instruction or team planning between the teacher and the teaching artist.

Dunn (1995) presents a fourth model, "the interdisciplinary arts approach model" (p.33), which aims to create learning experiences in multiple arts subjects. He suggests that as art forms, dance, art, music, and theatre share many common concerns and could potentially see a merge. The idea that Dunn presents fits the idea of true integration where there is no separation of the different disciplines and attempts to blend them. The idea of fusion (Fogarty, 1991), where subjects are merged together to form 'a unified subject', also relates.

Research around arts integration:

Research surrounding arts integration can be divided up using these models. The two most researched models are the collaboration and connections models which educators became aware of in the 1960s and 1970s when arts partnerships were developed within public schools in America and Britain (Burnaford et al., 2007). These partnerships were a way of engaging community organisations with schools and sit in the arts integration collaboration category.

There is much research surrounding collaboration in the arts, for example, Empire State Partnerships (Erickson & Adams 2004), Arts for academic

achievement (Werner, L2002), Oklahoma A+ Schools (Barry, Gunzenhauser, Montgomery& Raiber, 2003), and Arts Connection, 2005 to name a few. However two well-known arts partnership organisations are The Chicago Arts Partnership (2012), and The Kennedy Centre Partners in Education (2006). Although the Kennedy Centre promotes arts integration and fosters collaboration between artists and schools, they do not conduct research in arts learning. The second well-known arts partnership organisation as discussed in Burnaford et al. (2007) is the Chicago Arts Partnerships in Education, founded in 1992. Referred to in most literature as CAPE, it is a Chicago schools' improvement initiative that creates partnerships between teachers/schools with artists/arts organisations to create collaborative arts integration. The organisation has conducted extensive research in arts learning in reference to these CAPE schools. Within these schools, teachers and artists work collaboratively to integrate the curriculum with the arts disciplines. The teachers involved design units throughout the year that integrate academics with the arts and at least one of these is intended to be co-taught by an artist from within the community.

The research document '*Champions of Change*' is a collection of seven major studies that look at the role of arts education on the academic, behavioural, and thinking lives of children. Catterall and Waldorf (1999) present a comprehensive summary of findings from CAPE, evaluating the development and effects of impacts on the classroom, effects on teachers and artists, impact on students, and support from school and community based groups in relation to arts integration. Of interest in the report were findings relating to the effects on test scores in maths and reading between 17 CAPE schools and 17 non-CAPE schools. The findings found that in general the CAPE schools had higher achievement rates than non-CAPE schools in both areas. The differences were more significant at the elementary school and less significant at eighth grade level. It also noted that at high school level although there were still favoured differences they were not statistically significant. Deasy (2003) notes that studies like this are unable to demonstrate cause and effect. Therefore, more appropriately they should be considered more suggestive than conclusive.

Regardless of Deasy's point, the study makes two equally important intellectual contributions: its suggestion that artist and teacher partnerships can have a positive effect on student achievement and its attention to what these partnerships look like and how the role of the arts evolves in participating schools.

Another significant point of interest in the CAPE research was to do with students' attitudes towards arts integration. Surveys amongst students found that they enjoyed lessons in the arts and that it made learning fun. Percentages for enjoyment rates of 94 per cent of elementary school children, 50 per cent of middle school youngsters, and 86 per cent of high school students proved that students get a significant amount of enjoyment and satisfaction from engaging in the arts (Catterall & Waldorf, 1999).

A second research project around arts integration, and focusing around the idea of curricular connections or interdisciplinary arts, is Project Zero, a research group run through the Harvard Graduate School of Education. The research group investigates learning in the arts. Two of their research projects of significance are Reviewing Education and the Arts Project (REAP), conducted by Hetland and Winner (2001). It presents a series of meta-analytic articles reviewing the state of the evidence for transfer of arts learning to non-arts cognitive achievement, and the Interdisciplinary Studies Project conducted by Harvard Graduate School of Education (2010). This second project examines the nature of interdisciplinary work conducted by researchers' funding agencies, higher education faculties, and teachers working in experienced programmes and institutions. The project attempts to advance an "empirical understanding of the cognitive, epistemological, social and emotional dimensions of interdisciplinary work by examining best practices in research, collaboration, teaching, learning and assessment" (Harvard School of Education, 2005). These studies are unique and have relevance to the NZ context because they are some of the only research studies of their kind worldwide.

The REAP project is an extensive study which looks at all studies completed over the last 50 years, that make claims that studying in the arts leads to academic improvement. The project analyses seven categories obtained from research literature. The conclusions proved that there were significant links in three areas: listening to music, learning to play music and spatial reasoning, and drama and verbal skills. Reliable links were evident in two areas: learning to play music and mathematics, and dance and non-verbal reasoning. Finally, there were no reliable links in five areas: rich education and verbal and mathematics scores/grades, and arts rich education and creative thinking. It also included learning to play music and reading, visual arts and reading, and dance and reading. One of the more significant categories from the research was the category listening to music and spatial-temporal reasoning. This is defined as the ability to visualise spatial patterns, also studied by Rauscher, Shaw, Levine, Wright, Dennis and Newcomb (1997). Their research was centred on what has been coined the 'Mozart Effect' which proposes that the power of music can enhance spatial-temporal reasoning abilities. Overall, it was satisfying to see that the REAP project found that students who study the arts are consistently higher academic achievers than students who do not study the arts.

Ongoing research at the Harvard Graduate School of Education under Project Zero titled the *Interdisciplinary studies Project* has produced an extensive amount of publications organised into various categories, including Expert Interdisciplinary Work, Pre-Collegiate Interdisciplinary Education, Collegiate Interdisciplinary Education, Disciplinary Education, and Global Consciousness. Of significance to this literature review is the category of Pre-Collegiate Interdisciplinary Education with the principal investigators of this study being Howard Gardner and Verónica Boix Mansilla. This particular aspect of the research examined principles and practices of quality curriculum design, instruction, and assessment in established pre-collegiate programmes. One of these was the Humanities programme at St. Paul's School in Concord, New Hampshire. Research conducted by Nikitina (2002) considers the crucial elements of a successful interdisciplinary classroom through examining the core

characteristics of St. Paul's integrative classrooms. The core characteristics included a focus of the curriculum on a few essential topics (e.g. selfhood, social responsibility) approached from the perspectives of art, philosophy, literature and history; a single (rather than team) teaching model; an extensive use of dialogue and discussion; and teacher facilitation of connection-making. The elements that were identified through the research that made this particular school's model successful were:

- Institutional support and school culture
- Close knit community
- Proven record of academic excellence
- An administrative mandate for interdisciplinary education
- Faculty commitment

Of particular, yet not surprising interest was the anxiety felt by the older faculty members who found this approach challenging. The anxiety among them was primarily caused by a sense of loss of expertise. Other interesting discoveries were around the additional time and funding that was required to design and develop the new curriculum and maintain the increased level of interactivity among teachers. Comments were also made that more time was needed in the classroom in order to achieve the goals and for teachers to get together to help one another out. This was seen as a significant professional development opportunity. Finally the most significantly reported quality of the programme was its relevance to students' lives. Throughout the students' interviews they commented on how the issues raised in the classroom went to the core of their personal values and beliefs and caused them to reassess or reconfirm those beliefs.

Project Zero's research is ongoing and further research, particularly around Interdisciplinary teaching in International Baccalaureate schools is due to be released by Verónica Boix Mansilla in the near future. This particular research is an area that transformative educators can be excited about, while anticipating its future publication.

Recently Project Zero has also expanded its research in arts learning to include other branches of education. Howard Gardner's theory of multiple intelligences (1983) has been used as part of the rationale for the use of integrated arts models in teaching and learning. This research links to the benefits of the arts on the brain which is discussed later in this review which also arose in the REAP project.

The final research project titled 'The Third Space' by Deasy and Stevenson (2005) outlines 10 arts-integrated schools across the United States. The term the 'third space' is a metaphor describing the positive and supportive relationships that develop among students, teachers and the school community when they are involved in creating, performing or responding to works of art. In each of the 10 schools researched, it was found that the arts changed the school environment and as a result generated a range of benefits for students, teachers and the school communities. These benefits are well documented in the book. Due to the study being more focused around the benefits, this project is more appropriately referenced in terms of the significant benefits of arts integration below.

Benefits of arts integration

Some of the benefits of the two categories of integration, student and subject centred, were outlined earlier in this review. It would appear that many of the arts integration advocates see similar benefits; however, more specific benefits of arts integration are outlined here. It has already been reported that CAPE saw improvement of student grades and attitudes and that REAP saw students being significantly higher achievers because of learning in the arts. Popovich (2006), for instance, advocates that arts integration supports the idea of the integrated curriculum because of the many learning benefits the arts can provide. The most significant of these benefits can easily be separated into three distinct categories. These categories relate to the academic, developmental, and environmental benefits.

Ruppert (2006) presents an acronym to sum up how the arts benefit student achievement, and according to him “it is as simple as A-B-C” (p.10). The letter A relates to learning in the arts as **Academic**, where learning experiences in the arts contribute to the development of academic skills, including the areas of reading and language development and maths. Deasy and Stevenson (2005), and Catterall and Waldorf (1999) both refer to the arts contributing to a student’s academic skills. Deasy and Stevenson (2005) refer to the arts as directly contributing to the development of a student’s intellectual capacities. By exposing to students that learning is important, it can help students develop the sense that they can be agents of their own learning.

The letter B relates to learning in the arts being **Basic** in that arts learning experiences contribute to the development of certain thinking, social and motivational skills that are considered basic for success in school, life and work. These fundamental skills encompass a wide range of more subtle, general capacities of the mind, self-perceptions and social relationships. Longley (1999), Deasy and Stevenson (2005), Rabkin and Redmond (2005), and Magasamen and Battro (2011) also agree that learning in the Arts develops critical thinking, analytical thinking, and problem-solving skills, while providing cognitive skills that do not merely reproduce knowledge, but use knowledge in authentic intellectual ways. Magasamen and Battro (2011) discuss brain research in depth and how the arts can enhance learning in relation to brain research. Although the brain is very complex, research has begun to better understand the capacity to be moved by images, forms, sounds, and movements related to the arts and the brain. They reiterate that “for centuries philosophers have speculated on the links between perception, beauty, creativity, and pleasure and how educators are aware of the power of the arts and their multi-sensory magic for learning and teaching” (p.1). Bransford, Brown, and Cocking (2000) discuss the idea of ‘transfer of learning’ which links to the idea of integration. The context for how a person learns is important for promoting transfer. The idea of this concept is that if knowledge is only taught in a single context it is less likely to be adaptable in multiple contexts. When a student learns using multiple contexts they can more

easily take out the relevant content to develop a well-rounded understanding of the knowledge. Broudy (1977) strongly believes that it is better to “broadly educate people than simply train them to perform particular tasks” (as cited in Bransford, Brown, & Cocking, 2000, p.51). The President’s Committee on the Arts and Humanities (2011) agree with Broudy when they discuss how Neuro-Ed Initiative researchers at John Hopkins acknowledge this cognitive development related to arts integration.

Finally, the letter C relates to learning in the arts being **Comprehensive** in that the arts help to create the kind of learning environment conducive to teacher and student success. It fosters teacher innovation, a positive professional culture, community engagement, increased student attendance, effective instructional practice, and school identity. Deasy and Stevenson (2005) and Rabkin and Redmond (2005) also refer to these aspects discussing improved student behaviour and attendance rates because students are more engaged in school and their teacher’s innovation. Deasy and Stevenson (2005) discuss the benefits for teachers. It is important to note that teachers are one of the key contributors in arts integration — determining how meaningful the arts are for students. They report increased satisfaction and renewal from teachers, finding that many of the teachers interviewed enjoyed teaching more because of the receptiveness of their students and collaboration taking place with their colleagues. They also discuss building community engagement. As we have seen in the arts partnership, research arts integration is not confined to the school itself and can include outside collaborators. Arts integration can lead to creating relationships with the community. In Deasy and Stevenson’s (2005) *Third Space* research all of the schools involved artists and arts organisations from the community. These collaborators all became an integral part of school life, collaborating with teachers and students. In this way arts integration programmes could be seen as a way for students to develop greater connections with their local communities. In turn, this creates appreciation and understanding and can also assist students in developing social skills.

Other benefits included positive aspects for personal, social, and academic growth (Lorimer, 2009), raising students' intrinsic standards, motivating students to invest the energy that learning requires of them (Rabkin & Redmond, 2005), enhancing critical thinking, decision making, and creativity. It also enabled students to apply content and skills to their daily lives, and cultivating students' learning styles and multiple intelligences (Burnaford et al., 2007). Fiske (1999) communicates that the arts have the potential to reach students not normally reached, transform the environment for learning, and provide learning opportunities for the adults in the lives of young people. Fowler (1994) adds to this by stating that "the arts humanise the curriculum while affirming the interconnectedness of all forms of knowing...they teach divergent rather than convergent thinking" (p. 4-5). These significant benefits produced in the arts integration literature clearly echo the benefits seen in the general integration literature presented earlier in this review, for example, unifying learning, building on prior knowledge, and reflecting on the world. Fowler (1994) reiterates the added benefits of the arts, in "that with a subject matter as broad as life itself, the arts easily relates to aspects of almost everything taught" (p.4).

Thus far, arts integration, research surrounding it, and its benefits have been defined. However, implementing an arts integrated approach although clearly having its benefits also has its challenges. Many non-specialist art teachers have fears that revolve around developing and implementing an arts integrated curriculum (Burnaford, Aprill, & Weiss, 2001; Shrimpton & Godinho, 2008). If schools are intending to implement a model such as this, teachers need plenty of professional development, support, and guidance to feel comfortable in the process. Burnaford et al. (2007) discuss the generalist teacher versus the specialist arts teacher and that generalist teachers need to have an understanding of all four arts fields. Working with an arts specialist should be part of this process. Contrarily arts specialists must become more proficient at communicating their art learning to work with other curriculum specialists.

Teachers need to break down traditional subject barriers. Pigdon and Woolley (1993) and Vars (1991) discuss the concerns around the fragmented nature of our curriculum. The fragmentation of the school day is also a concern in that even in single-subject approaches teachers and students do not get the opportunity to look at a subject in enough depth. Jacobs (1989) reveals that many educators have begun to realise that students cannot be taught to be specialists in a certain area. Unlike in the past, in the real world students are expected to cope with numerous different aspects of their jobs and now “rather than operating as a specialised world the pendulum has begun swinging towards some balance” (Jacobs, 1989, p.16) so that students are able to draw from a range of fields to better integrate their knowledge into the outside world.

This concern has led to the integration of subjects which we traditionally consider operating in isolation. In contrast to this, literature suggests how ‘territorial’ teachers can be of their own subjects. Beane (1995) discusses how subject-loyal teachers rebel against integration stating that they resent being distracted from their usual focus on content coverage. Locke (2008) supports Beane’s views in reiterating that secondary teachers describe themselves by their specialist teaching subject and it is this characteristic that distinguishes the secondary sector from the primary sector. Historically, secondary schools have been known to teach ‘subjects’ and ‘disciplines’ because of the specialisation of training required to teach specific subjects. It is this aspect of the secondary sector that noticeably isolates teachers from each other but these specialisations that direct people towards secondary teaching in the first place. Even Beane (1995), who is strongly in favour of integration, believes that we should not compromise the integrity and value of individual subjects purely for the fact that without this separate subject knowledge there would not be a purpose for integration. For this reason he believes “separate subjects are not the enemies of curriculum integration” (p.622). Integration in this respect should be considered a way to fill the ‘gaps’ in knowledge, and make more meaningful connections for the students. Therefore, it is important to keep in mind that CI should not abandon the skills and understandings of separate subject areas but enhance them by crossing over key learning areas.

Shoemaker (1989) supports this idea in seeing CI as education that “cuts across subject-matter lines” by aiming to bring together different aspects of the curriculum to create meaningful connections across different areas of study. Shoemaker follows Beane by viewing learning and teaching in a holistic way.

Application in secondary schools:

From the four models of Arts Integration presented the favoured model is Burnaford et al.'s (2007) third approach: “Arts integration as collaborative engagement” (p.14). The research projects that have been examined in this literature review that focus on this model mainly use collaborative engagement between schools and the community (for example, an outside expert working alongside the classroom teacher). Therefore, the potential to create a collaborative engagement model within a secondary school using its current human resources (for example, arts specialists such as music, dance, drama, and art teachers) shows a gap in current research and one that could potentially see the secondary school learning model being adapted to provide for more meaningful CI. It is thought that the main reason for the gap in the research is related to one of the points raised by Shrimpton and Godinho (2008) in that there is a lack of professional development to support teachers in integrative curriculum planning processes, and therefore it seems easier to outsource experts rather than collaborating with other colleagues. Other reasons could potentially be related to the other pragmatics brought up by Shrimpton and Godinho (2008) and also the guilt of burdening fellow teachers/colleagues with extra workload.

A key feature of secondary schools is that they are organised in to separate departments. Subject knowledge generally takes priority over shared teaching and learning; therefore it is thought that the subject-centred approach is more appropriately implemented in a secondary school setting because the majority of secondary school teachers will traditionally pre-plan the integration. In this review there was significantly more research in to the student-centred approach; however, it is thought

that this approach is not always practically possible in secondary schools due to the pragmatics discussed earlier. It will be interesting to see if this approach might play out more in this particular study given the holistic nature of the arts and the parallels that the student-centred approach has with the holistic development of a child.

Conclusion:

This literature review has provided background into the broad term of CI which includes the two categories of integration (student and subject-centred), theorists and their theories in both a historical and contemporary view, and the benefits of integration.

Although this review looks at both approaches to integration its main focus is on the subject-centred approach in secondary schools, in particular the approach of arts integration. The review defines arts integration as a case for further research and outlines its benefits and challenges. NZC (2007) has briefly been discussed in this review and it is suggested that shifts are needed to create more learner-centred, empowering, decentralised, responsive, coherent, connected, and collaborative learning experiences. All of these aspects are integral to the concept of integration. With this in mind it is thought that arts integration is seen as a potential way forward. Finally, the review looks at the possible implementation of this within a secondary school setting and has identified positive aspects that make its implication appropriate. It is felt that the Arts Collaboration model is the most suitable model for implementation because it allows an opportunity for teachers who wish to collaborate and work together towards a common goal to do so without having to necessarily deal with the various pragmatics discussed earlier in this review. It is intended that putting a model like this in action could provide an opportunity for other curriculum areas to see the benefits of integration and also begin collaborating across the curriculum.

Throughout this review the lack of research related to integration in secondary schools, both in NZ and internationally, has prompted interest in how the secondary school learning model could be adapted to provide

for more meaningful CI. The arts integration as collaborative engagement model is used as an example. Following on from the benefits identified in the literature review I would like to consider the advantages of implementing a model such as arts integration for students and what partnerships could be established. Given that this is a collaborative process I am also interested in the process followed which has led to the formation of the following research questions:

- What would be the advantages for students?
- What partnerships were established with different curriculum areas and what impact did these have?
- How would you describe the processes you undertook as part of this experience?

CHAPTER 3: METHODOLOGY

Introduction

The issue to be addressed through this study is 'how can the secondary school learning model be adapted to provide for more meaningful CI?' This study primarily looks at the potential to introduce an Arts Integration model, namely 'arts integration as collaborative engagement', into a secondary school setting, at an arts level. The reasons for keeping this study focused on the arts and not branching out to other learning areas was because of the challenges and practicalities in being able to combine with other subject areas due to timetable restrictions and environmental factors. It can be expected that if this study is successful it could provide motivation for other subject collaborations and as a result more meaningful CI.

This chapter includes a review of the research method and design appropriateness in order to carry out this investigation along with a discussion of the participants, data collection methods and transcription, reliability and validity, and a data analysis plan.

Research design and method

This is an exploratory research study that has involved a literature review followed by interviews and a focus group to determine how CI can effectively be implemented into a secondary school setting. The research method chosen for this study is a qualitative approach. "Qualitative data involves organising, accounting for and explaining the data; in short making sense of data in terms of the participants' definitions of the situation, noting patterns, themes, categories and regularities" (Cohen, Manion, & Morrison, 2007, p. 461). It is thought that this is the most appropriate method given that this study involves making sense of the participants' responses in relation to an arts integrated experience and the processes undertaken.

Qualitative approaches rely heavily on interpretation and in the case of this study it is intended that the researcher will gather, interpret, and

summarise multiple interpretations from the participants based on questionnaires, interviews, and a focus group session. Given that this is also a small scale study this method seems more appropriate and manageable particularly given the busy nature of a secondary school and that it is least disruptive for the students and teachers involved.

The research paradigm that is implemented in this study is Action Research. Cohen, Manion, and Morrison (2007) suggest that action research is a powerful tool for change and improvement, so given that this study looks at how the secondary school learning model could be adapted/changed to provide for more meaningful CI this seems like an appropriate form of research to be undertaking. Action research is defined in literature as “a systematic study that combines action and reflection with the intention of improving practice” (Ebbutt, 1985, p. 156). It is also said to aim to bridge the gap between research and practice and in the case of this study aims to do just that. Sagor (2005) presents a four step model of action research which is intended to be implemented in this study. The four step model follows the following steps:

- 1) Clarify the vision and targets
- 2) Articulate appropriate theory
- 3) Implement action and collect data
- 4) Reflect on the data and plan informed action

Steps 1 and 2 have already been presented in Chapters One and Two of this study and steps 3 and 4 will be produced in this chapter and the chapters to follow.

Participants and sampling

This study was conducted at a co-educational secondary school catering for students from years 7 to 13. The school where the research was conducted runs a dual pathway for students in years 12 and 13 whereby students may select either the National Certificate of Educational Achievement (NCEA) or the International Baccalaureate Diploma (IB). As part of this study, six IB Diploma students were invited to be part of an Arts Integrated collaboration experience. The IB programme requires that

students choose one subject from each of the academic areas 1 – 5, including studies in language and literature, language acquisition, individuals and societies, experimental sciences, and mathematics and computer science. Alongside these five courses, a student can also choose to study a group 6 subject (dance, music, film, theatre, or visual arts) or to study an additional subject from groups 1 – 5.

As part of the initial planning phase for the IB Diploma programme (a two year diploma) the researcher began to explore the idea of collaborating with other group 6 arts subjects. There are four of the five IB group 6 subjects on offer to students at the school. These are dance, music, film and visual Arts. Film is a new subject on offer at the school, and the trained teacher was away on sabbatical leave, so the best choices for collaboration were dance, music and visual Arts. In the cohort beginning in 2012 there were three students enrolled in the dance programme, two in music, and one in the visual arts. Therefore the recruiting of participants for this study was restricted by the number of students enrolled in these group 6 subjects. It is also important to note that the six students are all female and in Year 13 (all aged 17). The three staff involved are the teachers of music, visual arts, and dance. The years of teaching experience of the teachers involved ranges from 7-17 years and 2-5 years in the teaching of the IB diploma.

The six students involved worked collaboratively in pairs with one of each pair being a dance student (for example, the dance students worked collaboratively with either a music or art student as part of their requirements for the International Baccalaureate diploma). The teachers took on the role as joint facilitators in the project.

Data collection

To enable the research question to be answered, data was collected from the two groups of participants described above (students and staff).

As part of collecting data from the students a two-step process was followed. The first part of the process involved the group of six students

answering two questions in an individual student questionnaire (see Appendix E).

The purpose of collecting data from an individual written questionnaire was to enable the researcher to gather prior knowledge and information through individualised responses from the students and enable the researcher to analyse this information in order to gather the 'focus' and 'themes' for discussion in the second step of the process.

The second step of the process involved a focus group. The researcher analysed the student questionnaires and made notes on specific themes that had emerged and any further information that was intended for discussion in the student focus group. The focus group meeting was considered central to the success of this project's design because it gave the students an opportunity to openly discuss the process. Literature describes focus meetings as a form of group interview with the reliance being on the interaction within the group, rather than between the interviewer and interviewee (Cohen, Manion, & Morrison, 2007). Focus groups tend to yield a collective rather than individualised view which in the context of this study (a collaborative approach to integration) seems an appropriate method of data collection. Although the researcher had already collated some information around key themes and ideas to give 'focus', the direction of the discussions was largely controlled by the students themselves because of the nature of the work (for example, the students led the collaborative process and the teachers were more facilitators).

As part of the data collection process with the staff participants, semi-structured one-on-one interviews were carried out (see Appendix F). Using an interview process meant that the researcher was able to gather information on the participants' knowledge, information, and opinions related to the process.

The benefits of using a semi-structured interview with the staff participants meant that while the interview itself was fairly controlled it still allowed for

some spontaneity and allowed the researcher to probe for further responses on deep or more complex issues.

There were also a number of sub questions to be addressed through the study that were intended to be collated through the interviews and focus group sessions (these are outlined in the initial student and teacher participation letters in Appendix C and D) and included:

- What would be the advantages for students?
- What partnerships were established with different curriculum areas and what impact did these have?
- How would you describe the processes you undertook as part of this experience?

Data gathering

When deciding upon what would be the best way to document the study a number of factors were taken into account. Above all else the research question was the most important aspect, and secondly, the methodological design.

Given that the nature of this research study was collaborative and that there was a lot of interaction between participants throughout the process it was thought that interviews and a focus group were the most appropriate form of data collection.

Focus groups are considered by Cohen et al. (2007) as an adjunct to group interviews, though not seen so much as a traditional interviewer versus participant interaction but more as an interaction within the group. This form of data collection sits nicely with the idea of collaboration in that views of the participants (in this case the students) could emerge from the group rather than on the researcher's agenda. The intention was that from a prior questionnaire and through the group interaction the data (in this case themes and views) will emerge in relation to their collaborative work.

Semi-structured interviews were also selected for similar reasons. The teachers in this study have worked collaboratively to plan and facilitate the student learning, and therefore were all part of the process. For this reason it seemed appropriate to allow them equal ownership in the reflection process.

Cohen et al. (2007) discuss the benefits of interviews and focus groups. In relation to this study it was important to also note the following points in regards to interviews:

- 1) That the knowledge should be seen as constructed between participants generating data
- 2) That they be seen as an interchange of views between two or more people on a topic of mutual interest; sees the centrality of human interaction for knowledge production.
- 3) That they enable participants to discuss their interpretations of the world in which they live and to express how they regard situations from their own point of view (as cited in Cohen et al., p. 247).

The combination of these three aspects in relation to the collaborative nature makes these data collection methods fitting to this study.

Transcribing

Transcribing the data was a particularly important aspect of the data collection process. Given that the researcher needed to conduct the interviews and the focus group session it became evident that recording data in written form would be difficult and potentially important information could be missed in the rush of attempting to transcribe. Also given the significant amount of data to be collected during the focus group and interviews it was important to ensure that all data was collected effectively for analysis following this and to enable the researcher to use appropriate quotes and responses from the participants. To ensure there was no data loss it was decided that audio recording was the best method of data collection to enable efficient data analysis.

Following the recording of the data it was important to consider how this data was to be transcribed. Because there was a lot of conversation taking place, particularly during the interviews and focus group, it was difficult to transcribe verbatim in case any important information was missed; therefore the audio recordings were listened to and common words and themes were documented. Field notes were also taken before, during, and after the interviews and the focus group. Kvale (2007) and Saldaña (2009) both discuss the need for field notes as a supplement to recordings. Saldaña (2009) refers to these field notes as 'preliminary jottings' where researchers can begin the coding process before the data analysis process. In these jottings it meant that the researcher could write up potential themes along the way. Due to the variety of data gathering techniques being used in this study (a questionnaire, two separate interviews, and a focus group) field notes were collated in a researcher's journal throughout the data collection phase along with anecdotal notes. Once all the questionnaires, interviews and focus groups were completed the notes were read to help identify key themes and ideas prior to listening back to the audio recordings. This was intended to provide a good overview and enabled any main themes to emerge prior to data analysis.

Data analysis

When carrying out the data analysis, thematic analysis was used. Braun and Clarke (2006) describe thematic analysis as "a method for identifying, analyzing and reporting patterns (themes) within data" (p. 6). Liamputtong and Ezzy (2005) support them in stating that thematic analysis is used to identify concepts, categories, and themes in the data and that the conclusions are derived from the data itself rather than from prior research (p. 266). Within literature there appears to be close similarities between grounded theory and thematic analysis. Liamputtong and Ezzy (2005) state the main difference between the two is that grounded theory includes theoretical sampling and thematic analysis does not.

The reason for choosing this particular method of analysis was because it appeared to suit research related to people's experiences, views and perceptions. Braun and Clarke (2006) support the use of thematic analysis as being an ideal method for reporting the participants' reality,

experiences and meanings. Another reason for choosing this method is because the study being conducted for the purposes of this paper has no specific prior research to compare it to and is what appears to be the first of its kind in NZ. For this reason it is important for the themes and conclusions to emerge as a result of the data rather than prior to it.

According to Braun and Clarke (2006) thematic analysis is performed through the process of coding in six phases. These phases are: familiarisation with data, generating initial codes, searching for themes among codes, reviewing themes, defining and naming themes, and producing the final report (p. 35). There are several different ways that thematic analysis can be approached. For the purposes of this study, two of particular interest were the inductive and deductive methods. In an inductive method the coding and theme development are directed by the content of the data; however, in deductive method coding and theme development are directed by existing concepts or ideas (Braun & Clarke, 2006). O'Leary (2004) states that "to move from raw data to meaningful understanding is a process reliant on the generation/exploration of relevant themes" (p.196). It is intended that most of the themes in this study will be discovered through inductive analysis; however, some will emerge through the data collection process and have links to the literature already presented in Chapter Two.

In following the six phases and the inductive method above, familiarisation of the data was carried out by studying the open analysis of field notes, reading through the student questionnaires again, audio recordings were listened to, and notes were taken to record key ideas, phrases, and emerging themes (Creswell, 2000). This process was followed in order to gain an understanding of the data and eliminate any data that was not required. During this familiarisation stage key quotes from the participants were also recorded for use in the discussion. As part of generating initial codes, labels were assigned in relation to the set research question(s) and following this themes were identified through these labels/codes. As part of the final stages of the data analysis the themes were reviewed and contextualised and the findings, including the research questions and

central themes, were discussed and conclusions drawn that link to these, supported by theory.

Finally, it is important to note the subjectivity of research and that attention must be paid to interpretive practices and processes. Gubrium and Holstein (2002) state that “the value of interview data lies both in their meanings and in how meanings are constructed” (pg. 16). Given the nature of thematic analysis the meanings are identified and constructed from the researcher’s perspective. Therefore there is a level of subjectivity in this study. It is important to note that the researcher is the dance teacher involved in this study; however, given the researcher's desires and interests in this field she chose to eliminate herself from the data collection and analysis process and put triangulation procedures in place to prevent subjectivity where possible.

Process of identifying themes

During a collaborative session following the final stage of the process (the performance), students are asked to fill in a short questionnaire (Appendix G). When completing this questionnaire students will be asked to complete it individually. The purpose of this questionnaire is to assist the researcher in developing a discussion topic/s for the focus group. From these questionnaires the researcher will be able to begin the initial stage of coding by identifying any key themes/patterns that emerge by highlighting and sorting information using specific codes/categories. Key statements made by the students in the questionnaires will then be categorised under each of these themes.

The researcher is conscious not to unduly influence the results of the focus group by having a pre-determined course or outcome. To begin the focus group discussion the researcher will present the themes to the students and allow them to elaborate on or introduce other themes. The purpose of the focus group is to be able to discuss the themes that emerged from the questionnaires and provide further information and/or enable further themes to emerge. By presenting the themes that

emerged from the questionnaires it will also assist in beginning an open discussion with the students in relation to these.

Following the focus group session it is intended that more potential themes will emerge. Following this again key statements and quotes made by the students at the focus group will be categorised under each of the themes.

Succeeding the teacher interviews it is hoped that several of these already established themes will also become evident along with any further themes. Key statements and quotes from the interviews are also categorised to assist with the presentation of findings.

Ethical Considerations

Ethical considerations central to this project included gaining informed consent without persuasion, reporting findings in a trustworthy manner, and protecting the participants from harm.

In this project, written consent was sought from the principal, teachers, parents and students (Appendices A, B, C, D). By gaining consent this ensured that all participants were aware of what the study entailed and that they understood that they had the right to withdraw at any stage up to the data analysis process as the subject's own the raw data.

One other aspect that needed consideration was protecting participant identity. For the purposes of this study the identification of the school and the participants are protected by labelling students as Student A, B, C etc and staff as Teacher A and B. Limited details on the school are provided. All questions from the teacher interviews and student focus group were designed around the research issue and no personal data was sought. Participants were not asked to comment on or evaluate others' work.

Finally the protection of the participants was carefully thought through. As part of this research there was no disruption to class time, with all research being conducted out of school hours as negotiated with the students and

staff members involved. Due to the nature of the research, where students will have worked collaboratively there may be some potential to comment on or make judgments about another person's work or creative process. Questions were carefully worded to reduce the risk of this and during the focus group session students were reminded of this. Given that the researcher was also the classroom teacher and assessor of the work, participants were also reminded that participation in this study would have no effect on their grades or on future academic results. Due to the nature of the IB diploma this aspect of the course is externally assessed by an examiner appointed by IB, and therefore there was no potential for bias.

The Hawthorne effect

Although all forms of bias have attempted to be eliminated to the best of the researcher's ability there are still aspects of bias that have the potential to creep in because of the nature of human behaviour. One effect that is discussed in relation to this is the Hawthorne effect.

"Originating from studies conducted at the Hawthorne Plant of the Western Electric Company in the 1920s and 30s, the term 'Hawthorne Effect' now has come to mean changes in the behaviour of subjects that originate solely from their being the subject of research" (Shortall, 2003). I think that the potential for the participants to change their behaviour because of being part of a study is difficult to measure. Although this aspect of bias could be considered a matter of opinion it would appear to be one aspect of bias that is difficult to eliminate from the research and is clearly something that the researcher must take in to account when analysing the data. One way of eliminating this is by ensuring reliability and validity.

Reliability and Validity

According to Cohen et al. (2007), "validity is an important key to effective research" (p. 133). Validity, reliability, and trustworthiness are seen as the key aspects of ensuring quality in research. Here these three aspects are analysed in relation to the study. When maintaining quality in a research project it is also important to minimise the amount of bias as much as possible (Cohen et al., 2007, p.150).

Validity differs in qualitative and quantitative research. In qualitative studies (as with this one) the key concepts used to describe quality/validity of the data are honesty of the participants approached, the extent of triangulation, and the objectivity of the researcher. In this qualitative study one of the most important factors is the honesty of the participants. As already mentioned the researcher is also the classroom teacher of several of the students involved and a colleague to the staff participants. Although it is difficult to accurately manage the honesty of participants it is hoped that the environment that this study is conducted in and the conditions that are established prior to the data collection enable the participants to give honest responses and know that there will be no offence taken.

The meaning of reliability also differs in quantitative versus qualitative research. Reliability in qualitative research refers to the stability of observations, parallel forms, and inter-rater reliability (Cohen et al., 2007, p.149).

In realising that the idea of quality in validity and reliability differs depending on the method of research being used Onwuegbuzie and Johnson (2004) suggest “researchers need to complement one method with another” (p.15). This is where the idea of triangulation would seem like a sensible approach to take. Triangulation is defined as “the use of two or more methods of data collection...it is a powerful way of demonstrating concurrent validity” (Cohen et al., 2007, p.141). Using the idea of triangulation has its benefits in that it ensures trustworthiness, discussed by Cohen et al. (2007) as “credibility, confirmability, transferability and dependability” (p.158). Within this study a variety of data gathering techniques were used to ensure triangulation, which included questionnaires, a focus group, and a semi-structured interview.

Summary

The primary purpose of this study is to address how the secondary school learning model could be adapted to provide for more meaningful CI. The procedures outlined in this methodology are designed to help achieve this. In the following chapter the findings and data analysis are outlined.

CHAPTER 4: PRESENTATION OF FINDINGS

Introduction

This chapter provides a presentation of the findings from the student questionnaires, field notes, focus group, and semi-structured interviews. The findings are reported using a narrative “descriptive account” (Guest, Namely, & Mitchell, 2012, pg. 2) with key themes from the data analysis identified through thematic analysis. The themes are viewed as essential in attempting to answer the research question: *How can the secondary school learning model be adapted to provide for more meaningful curriculum integration?*

Four key themes emerged from the data analysis which have been labelled as compromise; a different approach to learning; real world application; and personal gain and empowerment. These labels evolved in connection with the set research question(s):

- What would be the advantages for students?
- What partnerships were established with different curriculum areas and what impact did these have?
- How would you describe the processes you undertook as part of this experience?

In order to bring the participants’ perspective to the study, rich descriptions are outlined in this chapter under each of the theme headings. These descriptions include key pieces of evidence from multiple sources (questionnaires, field notes, focus group, and semi-structured interviews) to support these themes along with direct quotations from participants.

Data demographics

There were two groups of participants in this study: students and teachers. The student participants included three dance students, two music students, and one visual arts student (refer to Table 1 for descriptors) all in Year 13 and all aged 17. All were female.

The teacher participants included a visual arts teacher, a music teacher and the teacher of dance (refer to Table 2 for descriptors), who was also the researcher, so for the purposes of this study has not been included as a participant to eliminate any bias. The teacher participants were female, with their years of teaching experience ranging from 7-17 years and 2-5 years in the teaching of the IB diploma (see Table 2).

Table 1: Student participants

Student (S) Label	Age	Discipline
SA	17	Dance (working with Music)
SB	17	Dance (working with Art)
SC	17	Dance (working with Music)
SD	17	Music
SE	17	Music
SF	17	Art

Table 2: Teacher participants

Teacher (T) Label	Years of Experience	Discipline
TA	17	Visual Arts
TB	13	Music
TC	7	Dance (Researcher)

It is important to note that the teachers' experiences in facilitating a collaborative experience were very limited and their knowledge of integration as a concept varied. The dance teacher (researcher) had taken a university paper on arts Integration. She had also experimented with some small scale arts integration projects prior to this study. The visual arts teacher had some previous experience with integration in a cross-curricular sense (English and visual arts) and was keen to implement previous methods along with trying out new ways of doing things. The music teacher, however, had very limited knowledge and learnt a lot about the process of facilitating a collaborative experience as the study progressed.

Data setting/s

As outlined in Chapter Two under ethical considerations, the researcher in this study was also the classroom teacher (namely to that of the dance

students) and a colleague for the teacher participants. For this reason several efforts were made to make a distinction between her role as the 'classroom teacher/colleague' and the 'researcher'. To assist in this, one factor put in place was the setting and time of the data collection. As part of this research there was no disruption to class time, with all research being conducted out of school hours as negotiated with the students and staff members involved and where possible off school grounds. Although the questionnaires were conducted at school (mainly due to the ease of access to the students following the final stage of the process), the focus group and interviews were conducted off school grounds in a relaxed café setting where they were also audio recorded. The researcher also had a notepad on hand to enable field notes to be taken.

Identifying themes

As part of the coding process, audio recordings and field notes were used to help sort key statements and quotes across the bodies of data (questionnaires, field notes, focus group, and interviews) in relation to each of the themes/categories. As Charmaz (2006) states, "coding is an emergent process" (p. 59). As part of the coding process, ideas and themes should continue to emerge across the bodies of data as the process evolves. In order to formulate the final categories as part of the findings the codes and data were compared with each other. Through comparing the data the researcher was able to develop the focused codes/major themes by sorting, synthesising, integrating and organising the data along with any sub-themes, and then eliminating any unnecessary data. The final themes were categorised as:

- Compromise
- A different approach to learning
- Real world application
- Personal gain and empowerment

Aspects of each of the emerging and selected themes were common across all bodies of data. Each of these themes along with the relevant sub-themes are outlined throughout the findings under the headings given above.

Theme one: Compromise

The most significant theme emerging from the data analysis was that of compromise. All participants (students and teachers) reflect this theme and it is thought that this is the case given the nature of the project. The concept of collaboration meant students working alongside someone else; therefore it was inevitable that compromise would be an obvious theme. The idea of compromising involved students agreeing to decisions through communicating with the other party and collaboratively making choices.

Student D: "I think being flexible was quite important."

Student B: "Probably a good way of describing it would be going with the flow."

Student C: "Yeah. You couldn't be too focused on what you wanted."

Across the data it became evident that there were several types of compromise being put into practice. These included:

- Compromise of process and style
- Compromise between students
- Compromise in stimulus

The idea of compromise definitely had its ups and downs for the students and many of the final decisions that were made showed that students worked through several phases of negotiation. Kennedy (2009) refers to the four-phase approach of negotiation of "prepare, debate, propose, bargain" (p. 10-11). These phases of negotiation were implemented in relation to several aspects of their collaboration. As a result of this at times it led them towards producing some impromptu results.

Student D: "Being flexible and not being too focused on what you initially thought allowed it (the piece) to change in ways that you might not have planned. The downside was that it might not be a change that you would choose and that you might prefer something else."

As part of the overall theme of compromise there were several aspects of compromise that emerged from the data. These included:

- Compromising in relation to the creative process and preferred style
- Compromise in stimulus

- Compromising your own thoughts and feelings

Compromising in relation to the creative process and preferred style

Artists, musicians, and choreographers have their own preferred creative processes and ways of working. The students in this study needed to make some compromises with these or consider how they could combine their ways of working. This meant making compromises on aspects that they would not usually have to do.

Student E: "I feel that as a musician the creative process that I usually go through doesn't always start with a style in mind, and that's what was different here. In trying to compose for a dance I had to go with a style first. When you are composing you don't necessarily write in any style it often comes after you compose 'cause you relate it to that. I had to do a lot of research around percussion to try and tie it in to our theme of Africa. If you are wanting to compose in that dance style you want to have features that would be found in the music."

This indicates that the composer had to make a compromise with her usual way of composing music to factor in a specific style of music to assist the choreographer in her process. Without this compromise it would have been difficult for the choreographer to have a basis for choreographing using a specific vocabulary of movement. Having a style to base the choreography on also meant that the choreographer was able to go away and research further (for example, African dance styles) in order to merge ideas and suit the themes being portrayed in the composition.

Compromise in stimulus

In the case of the other music and dance partnership a compromise needed to be made also. Generally when a dance is composed the dance student will start with a very clear stimulus; however, to create a compromise the students initially agreed on creating a fairly broad stimulus by stipulating that they wanted to create a piece of music with a disjointed feel and interesting rhythms and allow the stimulus to evolve as a result of the composition. This decision was made in order to make a mutual compromise.

Student D: "When I compose I can't really plan. I'm more of an 'I'm gonna compose now and see what happens person' which is part of the reason our stimulus made itself clear at the end...I guess my stimulus was I'm gonna start in 5/4 timing."

Although this created some work later in the process for the students in that they needed to reconvene and develop their combined idea by using the music as a stimulus this seemed to work effectively for these students.

Student D: "Our idea was more abstract and it developed as the work developed. The instruments were a stimulus. It evolved as we went on."

Student A: "We could have pulled the stimulus from anywhere. Normally I would have a definite stimulus at the start; however, by doing it this way it made it a better stimulus in a way because it developed as a result of the music. The music was the stimulus for both the composition and the dance."

Both of these partnerships worked in different ways:

Student E: "The different ways that we worked in our pairs reflected the direction that our end products took."

Both examples indicate that the students made compromises from their normal way of approaching things and pushed themselves outside of their comfort zone by either composing or choreographing in a style of dance that they would not usually do or working in a manner they would not usually. In saying that, the students were also able to make some compromises in merging aspects of their preferred ways of doing things.

In the case of the visual arts student, some compromises also needed to be made in relation to her style and it was clear through her questionnaire and the interview with the teacher that this student really struggled with the whole concept at first. She commented "at the very beginning I was sceptical if she (student B) would actually be able to create a dance. To see it come together it was really amazing." In working in this manner the student needed to do a lot of reflecting.

Student F: "I thought a lot about rhythm in my work especially when I was first painting. I had to keep going back to: this is going to be a dance this is not just going to be a painting I can't go about it the way I usually go about it...Music and dance are both rhythmically based. Art is never really about that, whereas when I was creating

my painting I had to think about rhythm and music in the work which would never usually be there. It was really challenging to begin with 'cause I was listening to this music and trying to paint and I was just making splashes. I realised I wasn't really listening to it. What we had to do was to find some meaning that I could put into my painting. We had to interpret it."

As facilitator, the teacher had to support and guide this student significantly throughout the process. As a new way of working, one of the things that worked well for the student and her collaborative partner was to go back to the music and really listen and think about: what was the mood? What was the intention?

Teacher A: "When they got a bit lost it was the music that brought them back together which is really interesting because it was the music that was the starting point of the whole collaboration. Without the music they would have fallen apart."

By doing this the students were able to re-focus and pull out common ideas and new ideas.

One other interesting finding from the data related to compromise was the difference between the preferred ways of working the various disciplines. Generally due to the nature of dance these students were used to working in collaboration with others; however, both the musicians in this study commented on how they preferred to work in isolation and have free rein when composing. This was a key compromise that they had to make in relation to their creative process. For these reasons they had some difficulty conforming initially and reflected on this:

Student D: "I guess it's the same as choreography but composition is very personal, it's how you see music on a page. It's your thoughts, it's how you see music so I guess compromising that with someone else was quite difficult. I found it really difficult. Trying to incorporate in to my music ideas from someone else. I found that critical."

On the other hand the choreographers working with the musicians found this aspect of the process helpful as they were able to negotiate and discuss ideas with the musician to assist in the overall creative process:

Student C: I think it was kind of different from a dancer's perspective in that usually the music we get to make up a dance

can't be changed so it's kind of the same thing but it was different in that I could go back to her and be like 'oh can you do this?' but usually when you have a piece of music from somewhere you can't actually do that."

Student A: "I thought that was really good like going back."

Student C: "It was really helpful."

The visual arts student was also in a similar situation in that as an artist she had always worked towards creating a piece of artwork on her own either for her own personal gain or as part of an assessment for school. The student and her teacher both commented on how much she struggled with this concept.

Teacher A: "The student had a lot of self-doubt and I really struggled to focus her sometimes because she couldn't see the end product. I think the huge success was to take my art student out of her field and really make her see the bigger picture so she could see where she fitted in to something that was bigger than her and that she wasn't working in isolation."

The struggles that the student was experiencing were related to pushing herself outside of her comfort zone. In the big picture it was a real challenge for her and the teacher needed to work along-side the student to guide her towards seeing the big picture.

Teacher A: "I like to think that as a teacher I'm shoulder to shoulder with a student walking beside them and opening doors and showing them things but I'm not leading necessarily all the time. There's times where you have to lead but I don't think it helps."

As a result of this teacher's support and guidance the student was able to work through these challenges and continue with the process. It was felt that the initial struggle and reluctance was due to the student not having the opportunity to see or experience anything like this before and being very hesitant about how the end product would turn out.

Student F: "When I first heard of the idea I was thinking ok this could be interesting. I could see it working for the music but I wasn't sure using a visual stimulus would work quite as well."

Given the compromises these students were making it was important to balance the collaborative time that the students had together. It wouldn't

have been feasible for them to have been working together all the time mainly due to the nature of each individual's creative process and the need to have time individually to working through their own thoughts and ideas in relation to the collaboration. Regular weekly meetings were set up for students to debrief, share, and discuss progress and where to next. Extra meetings were also put in place where students were having challenges or needed to discuss things further. This allowed for the students to work in their separate disciplines; however, in the back of their minds they were always considerate of the shared goal or greater purpose of the project. For this reason communication was important because if ideas changed this could have a negative impact on the other person.

Compromising own thoughts and feelings

All the students were aware that they were creating a work for a greater purpose (for example, a collaborative dance work). For this reason the students needed to take on a selfless approach with their creative work because they knew that what they created had a direct impact on someone else. One of the main aspects of this theme that also emerged as the analysis went on was the concept of fear.

Student F: "The impact you had to be really careful. Is what I'm looking for the same as what 'student B' was looking for. If I take it too far in one direction is that negatively going to impact on her work or is it positively going to impact? I found that I was painting in movements. I think subconsciously while painting to the music I was creating patterns and strokes which could be transferred to dance."

The teachers as the facilitators were aware of the sensitivity of the collaboration.

Teacher A: "Both girls felt a huge amount of responsibility not to offend each other and remember that it's not just about them. Although there was a degree of compromise they still held firm with their beliefs at times."

Within this theme there was a strong sub-theme coming through of the need to do each other's work justice and make each other proud. Students commented a lot on their fears of not appeasing their collaborative partner and being scared of the effects that their

collaborative decisions might have on one another's final product or assessment.

Student A: "Because it's a collaboration it's not just your work that you're scared about it's the other person's too."

Student C: "I was really worried. I feel so sorry for 'student A'. I can't believe I did something in 5/4. I still thought at the end of it that this was pretty cool. It all came together in a really enlightening way. It was just really nice."

Student A: "In the performance I really wanted my performers to do it well so I could show 'student C' what I'd created from the piece so that she could see where it had gone."

Student B: "I didn't want her to look at it and think is that what 'student B' thought of my painting."

Student F: "At the very beginning I was sceptical if she would actually be able to create a dance from my painting. To see it come together it was really amazing."

Student E: "I had slight doubts when first viewing the dance...I wasn't worried once I'd seen the final performance of the dance."

Student C: "When 'student D' first came to watch the girls practising I was so embarrassed. I said to myself 'student D' is watching this. What has she thought of this? I was so embarrassed."

Student B: "I looked over after the final performance to see 'student F's' face to see what she thought of it."

This sub-theme contributed significantly to the overall theme of compromise because there was a great deal of self-reflection and consideration on the part of each student. It was also evident that there was a degree of fear from the students' perspectives. Although it was predicted this would be the case the researcher didn't expect it to come through as strongly as it did. Many of the students did not feel a sense of satisfaction or that they had fulfilled their partner's expectations until after the final performance and subsequently at the focus group session where they openly discussed their appreciation for each other's works. The final performance was clearly a very satisfying and relieving part of the process as heading in to this stage there were a lot of nerves.

Theme two: A different approach to learning

Given that CI is an innovative approach to learning it was expected that the students would bring up the idea of it being unique and different to them. As mentioned in the previous section as part of students compromising they needed to look at 'new' ways of approaching things. There is some cross over in these themes; however, the theme of taking a new approach to learning was a significant feature of this study. Another very clear and major sub-theme that emerged as part of this theme was the theme of it being a 'journey/process'. Many of the students commented that they had never taken an approach to learning like this before.

Student A: "The natural development that it took was quite interesting. From a starting to end point it was quite different."

Aspects that made this approach to learning different for all the students involved were summarised by the students as:

- We both had input in initial brainstorming
- Brainstorming together meant bunching ideas of another person
- Both of us could come up with ideas and go off on different thoughts - a bit more varied
- We were able to draw inspiration from our own ideas and the ideas of a partner
- Having someone else's opinions and ideas aid my creativity
- I was able to go back to my collaborative partner and ask any questions or bring up any uncertainties in the music
- I wasn't influenced by different music. Having a composition that related musically to my intention aided in staying on task with choreography
- Pressure to create something that portrayed both mine and the collaborators intention/s
- Gave me a way of approaching art differently
- Allowed me to see how music and dance can impact and effect a traditional approach to fine arts and my own creative process

- The originality of how it all came from scratch, both the choreography and music
- Aspects of composition that would probably not be there if the task had not been collaborative
- As a musician it was good to see composition presented in another medium.

The aspects discussed by the students fit under the following categories: sharing and combining ideas; having a common goal; and giving students a different way of approaching a normal task. The effect on the student's learning was to make them all look at how to approach their creative process and the learning they undertake within each of their separate disciplines in a different way. It encouraged them to step outside their normal way of doing things and challenge their ways of thinking.

Student B: "It made me look at my process differently. Usually when we do dances we are really focused on doing motifs. Instead of doing that we had a structure first. Whenever my partner and I got stuck I went back and we had fun painting. It helped me with the choreography. To understand her process was important. My process changed a bit trying to mimic a more art-like creative process to try and show the art influence in my overall work."

The teachers involved in the study also commented on students being pushed outside their comfort zones:

Teacher A: "It took her right out of her comfort zone. In the big picture it was a real challenge for her."

Using this method of learning had some interesting benefits for the students (particularly for the dance students). Having a collaborator to discuss ideas with and go back to solve any issues was a huge part of the learning process.

Student A: "I got stuck at first but then I went back and we discussed ideas again and looked through the music and the original ideas to find the key bits, the important bits. We found that together."

Not only was this of benefit towards the start of the choreographic process but also towards the end when challenging aspects related to the timing of

the music caused some challenges for the dancers who were not musical and struggled to hear specific beats and accents.

Student A: "Trying to teach the dancers I would hear the music and know when the moves were and when they asked me what the timing was I couldn't tell them. It was a challenge for them as well as me."

The benefit of having a collaborator meant that the choreographer was able to bring the composer along to the dance rehearsal and show them some of the challenges they were facing.

Student D: "When I came and watched it was perfect 'cause we could see the bits that the girls were struggling with where some bits weren't loud enough or if there were bits that needed to be accented and we went away and looked at the score together and you listened to it and made suggestions about bits for what the dancers were listening for that needed to be louder and can we accent this with cymbals so then we could change it like that and that helped."

Student A: "Making it dance-friendly came afterwards too."

A journey/process

One of the major sub-themes that arose as a result of this theme was the idea of this type of learning or process being like a journey. Students enjoyed working towards a common goal with another person and the idea of it being a whole package product. The journey itself incorporated several stages which enabled the students to share in each other's achievements. Over the course of the year students enjoyed listening to their partner's composition throughout the process, watching the artwork and music progress and develop, receiving the final composition and seeing how far it had progressed, watching the choreography develop, seeing the challenges the dancers had with aspects of the music, learning about another person's creative process, sharing in the overall rewards, and knowing that you have helped each other.

Student A: "I think it's all pretty special knowing where you've started from and the journey to the end. Ours changed and developed a lot throughout. It was good that we got on well."

One of the disadvantages that emerged in relation to this sub-theme was the length of time that the complete process took. The overall length of time that the full process took is unusual for a journey of learning because generally teachers are restricted by assessment deadlines which generally means that the creative task/s assigned to students are condensed to fit in to a term of learning. There are also some limitations with how long a creative task can take due to the requirements of NCEA and fitting other standards in over the course of the year. Because this project was implemented as part of the IB diploma course there was more flexibility due to the course being spread out over 2 years. Given that it was collaboration between two creative subjects there was a clear process which involved:

- Brainstorming ideas
- Deciding on and developing the idea/stimulus
- Musicians composing and refining or artist painting
- Sharing of compositions/artwork
- Dancers choreographing dance
- Choreographers teaching their selected dancers
- Rehearsing and refining dance (including any music adjustments)
- Performing.

Throughout the process students met and discussed the progress and developments. While the initial two stages of developing the idea were relatively easy there was a certain amount of research that each party needed to carry out in order to have a shared approach towards the end result. Musicians then needed sufficient time to create the composition (approximately 10 weeks) and the visual art student needed time to create the painting (which was created in and amongst other pieces of art and left and returned to throughout the creative process). Following this the final composition and copy of the artwork were handed over to the dance students for the choreographic stage. At this point the choreographers needed to do further brainstorming to create the movement in relation to a structure etc. (this process took 12 weeks). Following this the choreographers contracted dancers and taught them in preparation for performance (a total of 8 weeks from beginning to end). In total the

complete process took a year. While all of the staff and students felt like it took quite a while, the process was fluid and allowed sufficient time for each discipline to complete their part of the collaboration. Each discipline was also able to continue with other course work in and amongst it; therefore it didn't impede on anything else that was happening in the classroom.

Teacher A: "I don't think it would have gone any better if we had said this is a 4 week project – do it! In some respects it needed that reflection in coming back to it."

One impact of the time frame on the overall process was that once the composition was completed, the dancers began the choreographic stage. This involved working with a group of up to eight dancers, no further compositional changes could be made as this would have an effect on those dancers. One of the music students commented on having to step back from this saying:

Student E: "I have to say that we had less say in what each other did 'cause 'student C' isn't musical and I don't dance. Once I was past composing I couldn't really comment on things that could be changed...I was very put out when 'student C' didn't use the 3rd movement of my composition; however, because it was a collaborative activity and I am not a dance student I couldn't really do anything about it."

This decision was mutually discussed between the dance student and the music student and when the dance student presented her points it was felt that it was not appropriate to include it in the final dance work, although this did remain in the student's final composition.

This comment has links to one of the next major themes, 'real world application' in that all the students needed to display respect for others.

Theme three: Real world application

Across the data there were a number of aspects that were raised in connection with this process having real world applications. In particular, from the teachers' perspectives, it was felt that as a result of the overall process students were gaining a number of skills that would be of benefit to them in the real world, beyond school. Although compromise has

already been discussed it was felt this was the biggest real world application and in the case of this section compromising personalities was a key aspect. Other skills for real world application included:

- Compromising personalities
- Bigger picture thinking
- Respect for others
- Drawing on prior knowledge.

Each of these skills was discussed by both the teachers and students and in most cases was related to how this would assist them in the world outside of school.

Compromising personalities

Students were aware of the impact of compromise and the application of this skill in the real world.

Student E: "I like to be in charge a lot. I don't really like to work in a group 'cause then I don't get my own way but I know that I will have to work with other people especially in the wider world and it's good to have to compromise."

It is clear from this comment that there was another level of compromise evident throughout the process in that personalities also needed to be compromised by students.

Teacher B: "In a collaborative field careful consideration needs to be taken for personalities. 'student E' can be quite opinionated and assertive. Within an artist context the artistic nature of the kids (and adults for that matter) means that temperaments can be quite fiery and can be quite determined."

It was fortunate that this was not an issue in the context of this study.

Teacher B: "They all got on well. Had they have been paired differently things would have worked out quite differently."

For this reason at the start of this process teachers met with each other to discuss pairings. Given that each of the teachers knew their students well, discussions were had early on in the process and careful consideration

was given to the pairings. Factors that influenced this were friend groupings and personalities. It is also important to note that the students involved were all very mature students and willing to be involved in this collaborative project from the outset. Due to their eagerness and excitement it meant that the students were quite open-minded about the compromises they were having to make and although at times the compromises did not go in their favour, students were able to keep sight of this.

Student D: "You needed to step back and look at it objectively."

Teacher B: "I think there was a lot of give and take and they were prepared for give and take. They were prepared to work together."

Teacher A: "Although there was a degree of compromise they actually still held firm with their beliefs."

Teacher B: "This is all valid pathways to tertiary education and also the workplace because you have to work with other people, you have to be prepared to compromise. While those are very elementary skills that we teach small children, often adolescents struggle with that level of the collaborative process. They don't want to have to give and take. Often as adults we struggle — we hold fast to what we believe in, particularly in creative fields."

These views gave students a greater understanding of the big picture in terms of their learning and the skills being developed.

Bigger picture thinking

In secondary schools we pattern students from year 9-13. Everything is broken up in to hour long bites throughout the day and it becomes difficult for students to see or make connections across or between learning areas. Students are often not guided to see these connections.

Teacher B: "It's very much these pockets of learning."

Student B: "Everyone thinks their subject is the most important."

Teacher A: "It's really sad to think that perhaps our world is going where people focus on one area in their lives and one career and they're not connecting it to the bigger world."

From the data collection it was particularly evident from the teachers' perspective that developing connections across learning areas enables

students to see the bigger picture and create links and connections in their learning.

Student A: "Collaborations are a good way to overlap disciplines."

Student C: "Teacher's don't see what your strengths are in your other subjects."

Teacher A: "I can see it having a huge advantage in a senior student heading to university. To go off to university and be making big links and be thinking at that higher level, that's where we need people in society to be able to do that big picture thinking."

Teacher B: "It's not just curriculum, it's not just dance, it's not just music, it's life skill stuff."

Teacher A: "I think the huge success of this project was being able to take my art student out of her field and really make her see the bigger picture so she could see where she fitted in to something that was bigger than her and that she wasn't working in isolation."

The whole idea of big picture learning allows students to interconnect their learning experiences. From the teacher's perspective this was a key learning experience for the students involved; however, more interestingly was the learning that it had for the teachers. It enabled the teachers to see the benefits of interwoven learning within this particular school.

Teacher A: "You can go months and not talk to someone. I think it's a real shame when a school gets split in to faculties."

Both teachers felt that this collaborative experience helped to develop relationships across learning areas and professional relationships with each other.

Teacher B: "The more we can develop fluency across the curriculum the better. This builds good curriculum area relationships and a good relationship between staff."

The relationships that were developed between the teachers were also one of the key aspects that helped to promote the partnerships established between curriculum areas.

Teacher B: "I think a good relationship between you and I where we could discuss it casually in the staffroom and keep it on track and just touching base all the time so we were both in control of our

fields in what we were doing but we were both totally on the same page.”

In this sense the discussions also had an element of professional development to them in that the teachers were able to have professional discussions out of class time and discuss any rewards or challenges of the collaboration.

Teacher A: “We were experiencing similar issues in the classroom with our students so we could discuss that.”

These discussions enabled the teachers to develop a mutual respect for each other’s disciplines.

Teacher B: “All of a sudden you get as much greater respect between curriculum areas.”

Respect for others

Not only was this respect felt among the staff but it also filtered down to the students.

Teacher A: “I think without them knowing they have supported each other incredibly well and respected each other. There was a great deal of respect for their different fields and I think sometimes students aren’t put in that situation. To lift it to the level of respecting another person and another person’s end product I think was fantastic.”

The students’ respect for each other also enabled them to develop a number of other inter-related skills as a result of this. It forced students to develop effective independent work habits to enable them to meet the deadlines of the other person in order to gain mutual respect and respect the other person’s deadlines. Another inter-related skill that developed as a result of this was being able to articulate clearly and in a way that respects the other person’s process and decisions.

Teacher B: “It hones communication skills and good interactions. The spins offs are much greater than just producing a piece of work at the end.”

Another theme that contributed to students establishing this mutual respect for each other was having some prior knowledge of each other’s disciplines.

Drawing on prior knowledge

There were two aspects that became evident from the data analysis that enabled students to draw on prior knowledge to assist them with this collaborative experience. They are categorised as:

- Prior knowledge of the discipline
- Prior knowledge of learning content

Prior knowledge of the discipline

The benefits of forming an arts collaboration as opposed to any other form of collaboration meant that the students generally had some prior knowledge of each other's disciplines.

Teacher B: "These students all had a pretty good understanding and a holistic fashion of each other's domains. The prior knowledge was there and was fairly equitable across the board."

This prior knowledge was generally brought about because all of the students in this study are involved in performing arts activities in an extra-curricular sense. Due to the holistic nature of the performing arts subjects, students had some understanding of each other's discipline.

Student B: "It kind of helps that we are both really interested in music; we both do the music thing. It kind of meant that we had a way of figuring out bits of the music and pick up certain instruments and get the feel of it. It was interesting as a starting point as it was an interesting piece of music. We were able to make connections with prior learning."

Student A: "It was kind of like that for us too. 'student B' had done a bit of dance and I've done a bit of music so we could see where each other were coming from."

Students' prior knowledge was able to be drawn on when the student encountered challenges. One example of this was in the collaboration between the dance student and art student who were able to draw on their shared prior knowledge when they got stuck.

Teacher A: "'Student F' had a really big music background. When they got a bit lost it was the music that bought them back together, which is really interesting because it was the music that was the starting point of the whole collaboration."

This quote raises awareness of student's prior skills and how these link to prior learning.

Teacher A: "Links to prior learning is something that students aren't always aware of until they're in the middle of a process and then they realise, I do know how to do this or I've experienced this before; how can I take what I've experienced before in to this new situation. Perhaps that doesn't happen enough in teaching and learning at the moment in that they're very much in the moment in the classroom. We teach and we scaffold skills but I wonder if there should be more on experience."

Using these skills and knowledge of learning content that is drawn from other disciplines was one way that students C and E were able to work effectively as they were the pair that had the least prior knowledge and understanding of each other's arts disciplines.

Prior knowledge of learning content

In relation to student A, B, D, and F's conversations about students C and E responded:

Student C: "It was completely the opposite for us."

Student E: "I haven't done any dance since I was 4 years old."

Student C: "And I'd only done music in year 9."

In the case of these students they were able to draw on prior knowledge and experiences to assist them in the process.

Student E: "I have a secret passion for history. I read an article that interested me and shared it with student C."

Student C: "I had just done an African Gumboot dance workshop and performed in Rainbow etude (a dance based on African slavery). The meaning and look of the dance really helped me. It also helped that I was also really interested in history."

It was this prior knowledge that assisted these students towards achieving a common goal. It also helped that in the case of the dance student she understood some of the terminology and jargon from a dancer's perspective.

Teacher B: "Music and dance have a natural synergy. With dance you still have to use music. It also reflected well on 'student C' that she was able to articulate herself enough to discuss matters."

As a result it was these new experiences and ways of working, together with the combination of prior knowledge that saw students develop a sense of pride, achievement, empowerment and personal gain.

Theme four: Personal gain and empowerment

Personal gain and empowerment was a major theme in the personal experiences and overall enjoyment and satisfaction of the participants, particularly the students. Students were thrilled to be able to see someone else's success come from what they created and seeing their partner's reaction to the final product created a great sense of achievement for the students.

Student F: "Before my painting was just another piece of artwork but now there's this dance it becomes this greater thing together with music and everything it makes it special whereas before it was just another painting."

Student F: "I was amazed at how you could create a dance from that visual stimulus. When I first heard of the idea I was thinking ok this could be interesting. I could see for the music you could create that but I wasn't sure using a visual stimulus it would work quite as well but I think that it did. I could see the painting. I didn't think I'd be able to see my painting but it really did come through."

There were also a number of sub-themes evident in this theme, which included:

- Gaining an appreciation of your own and others' disciplines
- Empowerment.

Gaining an appreciation of your own and others' disciplines

The students gained a great sense of appreciation for others' disciplines. During the focus group session, students were able to articulate to each other some of these points:

Student D: "It shows that different disciplines have different strengths. Some things are really prominent in one discipline."

Student C: "I was really impressed in the detail of the composition. It was very precise."

Student B: "Even when the girls that danced my dance when they saw the painting they were all amazed. They thought it was so cool."

Student A: "The most exciting thing was when I was listening to the composition and I could start to picture a dance in my mind."

Student E: "I was impressed by the way you all managed your dancers."

Student F: "I was amazed at how you could create a dance from that visual stimulus."

From this feedback students felt a great sense of pride in their work and that of others. Hearing this feedback and reflecting on the overall experience also gave students a greater appreciation of their own discipline.

Student F: "Doing something like this enhances your learning in your own discipline. I've learnt so much more about art. All the different things that I tried doing this I can apply to other things now that I know they work."

Student B: "It makes you appreciate the process that different art disciplines take. Makes you reflect on your own process and how you go about things in your own discipline. I have a much better understanding of how I compose now and how others operate differently."

Student E: "It was a personal gain to be able to look at things a different way and try new styles and things that you haven't considered doing before. With composition you can often get stuck with one theme or one style that you compose in different ways. It's good to step outside of that."

Student A: "I impressed myself."

Students also received a great deal of positive feedback from those who attended the final performance evening.

Student A: "People who watched the performance were impressed how you can translate a visual in to a dance."

Student D: "There were really positive comments from the public."

Student C: "Some people said to me how did you know how to put that all together. It's different people's strengths and how we work together."

Student E: "It was nice to be able to show off the arts to a small but appreciative group of the public."

All participants commented on the benefits of being able to see the final product before they were able to actually realise the impacts.

Teacher B: "It was most exciting to see the finished product. It shows you the merits of having the final performance. The project isn't complete until that happens."

Teacher A: "The whole concept appealed to me when I first saw it and I could see that it could be successful but it wasn't until we had the IB group 6 evening I realised by the reaction of the students how successful it actually was so it went beyond what I initially thought it was going to be successful."

Overall the feedback the students received from each other, their teachers, parents, and the general public gave them great pride. This was enhanced by the empowerment they were given.

Empowerment

As part of this collaborative experience the students were given the power and overall ownership of their learning. It was them who were leading the learning and the teachers were facilitating.

Teacher A: "I think it was hugely successful. I was incredibly proud of all the students. I think that it was empowering for every student involved."

Although this was the response at the end of the process there were some aspects of the process that made the end product particularly empowering, especially for the art student. The art teacher saw her role as the facilitator in this experience as being more a role of support and guidance but always allowed the students to come up with the solution.

Teacher A: "If a teacher rescues a student all the time they don't feel the goodies. For a student to struggle and come out the other side on their own with support and encouragement they're going to get a lot more out of it. I like to think that as a teacher I'm shoulder to shoulder with a student walking beside them and opening doors

and showing them things but I'm not leading necessarily all the time."

The other teacher had a similar view but developed the points that teacher A raised in also referring to the idea of this process being a very holistic approach to learning.

Teacher B: "The biggest focus for me is that it helps to develop the person as opposed to just the curriculum. It's holistic which is how we all know that the most effective education programmes are based. They shouldn't stand in isolation. This kind of project allows for that to happen. So often we take away from them (the students) driving the learning."

Although the students did not comment specifically on empowerment they did discuss how rewarding the experience was for them. Comments from the questionnaires included:

- It was exciting working towards a common goal with another person
- It was a whole package product
- It was an exciting prospect
- It was rewarding to share the dance with the composer throughout
- A very rewarding process
- I liked being able to work with other students under the arts umbrella.

Other comments were:

Student C: "Random students who have no knowledge of anything arts really enjoyed it. It was cool for them to notice that."

Student D: "It's a pretty cool concept."

Student F: "We should do this again."

Overall the data analysis produced very positive findings. There were very few negative reflections or comments made in relation to the collaboration.

Teacher A: "I think what the students got out of the process is huge. It is very hard to quantify. It's quantified in the experience the students had, the confidence it's given them, the real world

applications. It's always difficult to step outside teaching curriculum."

Summary

The major patterns established from the findings presented in this chapter were compromise, a different approach to learning, real world application, and personal gain and empowerment. It was evident across these themes that there were several common sub-themes emerging, the biggest of these was the theme of compromise, which clearly intertwined across all the major themes. Overall the findings produced very positive results and reflected a very encouraging view towards the collaborative model that was implemented.

In the following chapter these themes are discussed in detail and conclusions are drawn in relation to these along with any implications and future focus.

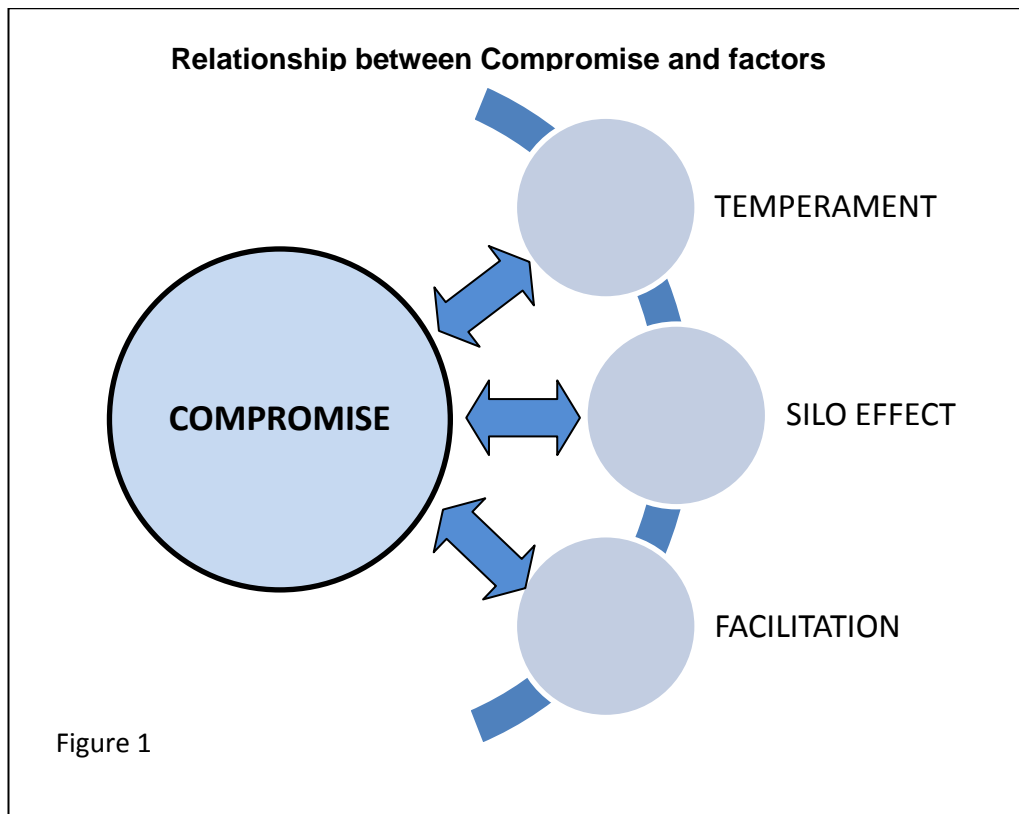
CHAPTER 5: DISCUSSION AND INTERPRETATION OF FINDINGS

This chapter discusses the major findings of this study researching the question: “*How can the secondary school learning model be adapted to provide for more meaningful curriculum integration?*” along with the sub questions:

- What would be the advantages for students?
- What partnerships were established with different curriculum areas and what impact did these have?
- How would you (participants) describe the processes you undertook as part of this experience?

In the previous chapter there were four main themes that emerged from the data. These were: ‘Compromise’, ‘A different approach to learning’, ‘Real world application’, and ‘Personal gain and empowerment’.

What became particularly obvious throughout the findings was the emergence of compromise as the overarching theme. Perhaps this was because of the amount of data collected during the questionnaires, interviews, and focus group in relation to it and its occurrence across the sub-themes. Due to the significance of this and its connections across the research questions a diagram has been created to illustrate the relationship between compromise and the factors that have influenced it. Figure 1 shows the main theme and its relationship to the three sub-themes. The overlapping of the factors in the discussion shows that there appears to be a relationship between the three factors in that they influence one another, hence the line between them. Two-way directional arrows could also be considered to show that there is some influence and that they do not operate in isolation; however, this cannot be proved and therefore have not been included. It is also thought that there could be a two-way inter-relationship between compromise and each of the three factors but it may need further investigation in order to prove this.



Each aspect is defined further throughout this chapter. In this discussion, literature from Chapter Two has also been highlighted to provide further support and clarification.

Compromise

Compromise is defined as “an agreement or settlement of a dispute that is reached by each side making concessions” (Oxford Dictionaries, 2013). Given this definition and the concept of the collaborative project being that students were working towards a common goal, it is to be expected that compromise would be a significant skill demonstrated by the participants; however, how considerable this became in the findings was not predicted. It is difficult to accurately know how developed each participant’s compromising skills were prior to this experience. However, it can be assumed that because of the factors influencing compromise such as temperament, the silo effect, and facilitation that potentially each participant’s skills have been further developed by this collaborative experience. Development of this skill could be considered a positive outcome and an advantage for the students involved.

Within the findings there were a number of aspects that participants needed to compromise on. These included:

- compromising of process and style
- compromise between students
- compromise in stimulus

The specifics on what factors supposedly influenced this are discussed in depth throughout this chapter; however, some major themes emerged related to compromise. The findings show that compromise had some interrelated social skills that students were also practising alongside this.

Compromise in stimulus

The selection of stimulus is one of the first phases of the process for students and could be considered the establishment phase of the process. From the findings it was felt that compromise in stimulus and compromise of process and style interconnect and potentially go hand in hand.

During the selection of the stimulus phase the students established their direction and purpose and began the first stages of negotiation and compromise. This negotiation became important for the remainder of the collaborative learning. Students needed to respect and appreciate each other's viewpoints for the collaboration to progress and were able to establish their own norms for effective operation. Individual accountability also emerged in this process which ensured that the students were working toward a clear purpose before beginning. The students gained significant communication skills from the collaborative experience and specifically from the initial negotiation and compromising phase. Not only was this processing important to the establishment phase but it appeared to save time further on and limit any conflict as students ensured they were on the same page from the start.

As part of this phase it immediately became clear to the students how important building trust, establishing flexible norms, and allowing open communication was. Students assisted each other's learning by working alongside one another, a skill not expected initially. Ruppert (2006) and Lorimer (2009) both mention how arts integration has positive benefits on personal and social growth, evident in these students. Ruppert's (2006)

acronym of learning in the arts being as simple as A-B-C is most accurately summarised how the arts benefit student social skills. The letter B is related to learning in the arts — **Basic**. This refers to certain thinking, social, and motivational skills that are considered basic for success in school, life and work. Although this literature is specific to learning in the arts and not necessarily collaboration or integration it does highlight the significance of social skills within a learning experience.

Slavin (1996) presents the theoretical perspective of Social Cohesion, outlining that “students will help one another learn because they care about one another and want one another to succeed...this perspective emphasizes primarily motivational rather than cognitive explanations for the instructional effectiveness of cooperative learning” (pg. 46). This sits with the contemporary perspectives of educators like Piaget (1972), Vygotsky (1978) and Bruner (1960) (discussed in Chapter Two) who shared holistic views of learning and believed that interactions between students would result in improved student achievement. “Students will learn from one another because in their discussions of the content, cognitive conflicts will arise, inadequate reasoning will be exposed, disequilibrium will occur, and higher quality understandings will emerge” (Slavin, 1996, pg. 49).

In regards to the literature, this is seen as a characteristic of the student-centred approach, where students become the important factor in the development of the curriculum and learning by ensuring that the experiences are the focal point. Initially it was thought that the student-centred approach held more significance in a primary school setting but it has become evident through the findings that it is also appropriately implemented in a secondary school learning environment, in particular in an arts collaborative learning approach. The reason for this could be that these students are older and have more developed social skills and life experiences to draw on related to their learning experiences.

The nature of collaboration specifically relates to Beane’s (1997) student-centred theory which discusses four interrelated categories; ‘social

integration' is the most relevant of these. The findings from this research demonstrated that learners were able to apply the ideas and understanding they have developed or had prior knowledge of (in this case compromise) in their daily lives and to the lives of others. This idea of learning through doing enables students to see the big picture of their learning and that what they are learning has significance in the wider world. This collaborative learning experience has assisted in developing the participants' social and interpersonal skills which have been equally as important as the learning itself. With little research in secondary schools focused on student-centred integration and its benefits on student personal and social growth, the question remains if combining the arts subjects as one of the subjects in the Integration is a way of making this happen.

Compromising of process and style

The findings also reveal that the students required a great deal of flexibility in their approach to this project compared to any other. The students had to appreciate that while they might have their own preferred way of doing things, this was a collaborative project and reaching a common goal required making concessions to their normal/preferred practice. It is this aspect of compromise that assists in answering the research question of what processes the students undertook as part of this experience along with further information provided in the temperament and facilitation sections of this chapter.

As part of compromise it meant the students occasionally needed to accept that their way was not necessarily the best way forward, rather, they needed to compromise for the greater good. This was difficult for a number of students. As seen in the findings, the music and art students generally prefer to work in isolation and have free rein in relation to their creative process. Not only was this approach new to them but the process they followed and style they were to create in was also new. This presented the students with a number of challenges and, coincidentally, learning experiences.

The music students found that where they would usually have full creative ownership of the shape and direction of their compositions they now had to compromise. The music students had further learning experiences from having to do some research on music specific to dance and also consider certain aspects of timing and rhythm that were essential for dance and choreography. Where the musicians were not traditionally used to composing in a specific style they found themselves having to do so to ensure that they could collaboratively work towards the common goal. This pushed the students outside of their comfort zones but allowed them to broaden their perspective on music and its contributing elements. These students discovered the potential to transfer their musical ability into new contexts and were able to challenge themselves to achieve something new. They were also able to draw on existing knowledge, creating connections between their learning and that of others.

Being able to draw on prior knowledge was useful for the students and in some respects potentially helped them when they were pushed outside their comfort zone. Literature from Jacobs (1989) also supports this, reiterating that students are expected to cope with numerous different aspects of their jobs and that drawing from a range of fields can assist students to better integrate their knowledge into the outside world. Therefore these findings have links to real world applications for the students.

The art student was initially very skeptical about the whole process and very concerned about how her piece of art work was going to contribute to a dance work. Unlike music, art is even more solitary in nature. Musicians often get the opportunity to perform and share their work in a social context whereas artists often create in isolation and then exhibit in a way where they may never be present. This student needed to compromise in the way she viewed the artistic process. Never before had she used music as a stimulus or had to consider aspects such as rhythm in her painting. This was a new learning experience and could be considered one of the many advantages of curriculum integration. It fits with Dewey's

views (1916, 1936, 1938) which promoted a holistic approach by ensuring that the experiences were the focal point and that students were “learning through doing”. This idea of learning through the process or learning through doing clearly made the learning experience more meaningful for the students in the collaboration because they were able to make connections between their subject and the learning process.

The dance students were different from the music and art students because they were used to working in a collaborative manner resulting from the structure of the dance courses (e.g. collaborative choreographies in the junior school and in the year 11 NCEA Dance programme). Regardless, these students had their preferred processes and found themselves frustrated with the time it took for the music and art work to be completed in order for them to work with it. They had to make compromises in other ways by carrying on with independent research to develop movement motifs and phrases to incorporate in to the dance. Mostly dance students are used to choreographing with music, and compromising by choreographing to the ideas of the piece rather than to music was quite a different approach for them. However, there were advantages in that the students were able to carefully process the stimulus and take time to consider how to structure the work and other relevant factors. They were also able to begin sections of the dance when given completed sections of the music; however, this was not always sequential which made it challenging for the process. Taking the opportunity to workshop specific aspects of the dance work became useful for the choreographer and gave them a new way of approaching the choreographic process. One aspect that the choreographers enjoyed from this process was that they were able to negotiate and discuss aspects related to the music (e.g. slowing the tempo down or accenting specific beats or notes). This became an influential aspect in terms of achieving and realising the greater goal.

Stepping outside their comfort zone and broadening their approaches of working enabled the students to take part in an experience that could contribute to the development of certain thinking, social and motivational

skills. This links with research by Longley (1999), Deasy and Stevenson (2005), Rabkin and Redmond (2005), and Magasamen and Battro (2011) found that learning in the arts develops critical thinking, analytical thinking, and problem-solving skills, while providing cognitive skills that do not merely reproduce knowledge, but use knowledge in authentic intellectual ways.

Choreographers, composers, and artists become used to their method and way of approaching something. Often these become ingrained but can stifle artists when creating something new, fresh and original, as Kilgour (2006) notes: "Becoming too knowledgeable in an area may result in a person judging new information based upon their existing knowledge structures and hence becoming less open to different information" (pg. 18). In secondary schools students are encouraged to specialise in specific subjects which can mean they may not be exposed to information and ways of working in other subject areas.

Enabling the students to work collaboratively exposed them to a range of new thinking skills and pushed them outside of their comfort zone. The creative process is often very personal to each artist and letting go of this was a risk that students took in regards to their learning, and compromising in this way allowed these students greater learning opportunities.

Compromise between students

The concept of learning is social in nature in the sense that in order to learn we need to use a variety of different mediums to study and develop new ideas. These ideas are shared with others and our own thoughts and perspectives are added to this. For collaboration to be effective the participants need to work in partnership with others and it was immediately clear that the students had to develop a relationship with their partner which consisted of trust and confidence in each other. This was essential.

Teacher B: "They knew from the outset that they would need to work together and that was really valuable. If they had thought, I'm

just going to do this my way and you'll have to work with what I do, it wouldn't have worked. They actually had to listen and discuss".

Throughout this aspect of the findings there was an underlying theme of fear that came through. Students were worried that the actions of their decisions could potentially have an effect on the other persons grade/result and they were particularly anxious about letting their partner down. In most cases assessment usually takes priority and drives the final product. This didn't appear to be the case in this study as the students felt a sense of responsibility towards each other and the process became as important, if not more important, than the final assessment.

Hamilton (2013) challenges the assumptions about the nature of high stakes educational assessment stating that times have changed and that "we are in an era of tools and ways of thinking that far outpace a general paradigm of conveying academic content, the acquisition of which is assessed through flawed accountability measures" (p. 112). How students learn has evolved and changed over time. Most students today live in a social networking world where there is an increased focus on social communication and interaction with their peers. "Social networking, mobile communications, and increased emphasis on participatory activity are three overlapping phenomena" (Hamilton, 2013, p. 112). It raises a number of questions:

- Are students craving the opportunity to learn in this way?
- Should we be creating parallel links between their learning and social lives?
- Should curriculum designers be considering aspects of learner engagement, autonomy, self-direction, and imagination rather than focusing heavily on assessment?

The students in this study were happy to compromise their assessment to create shared success and although there was a fear of failure, students realised early on that communication was key to the success of their own and others' work. Moving forward together towards the common goal and

trying a range of ways and means of doing this was important. Students practiced a great deal of sensitivity towards each other's crafts and respected each other's knowledge and skill-set. They were aware that their partner was an expert in each respective field and they needed to trust their opinion on aspects they had little knowledge of.

This selfless approach was an interesting discovery; however, it is thought that this was because students were aware they were creating this work for a greater purpose and were particularly keen to appease each other. This ensured the students shared in the successes of the final product as a result of this. These findings also link to Dowden and Nolan's (2006) integrative curriculum (IC model) in that there is also a strong student focus. In the case of this study the students were able to share the power of their learning by collaboratively planning and implementing their approaches. The application of this ensured that it was personally meaningful to the learner/s and that the learning was a holistic experience in that it was able to help them form parallels between the curriculum and aspects of the social context. As was described in Dowden and Nolan's (2006) IC model the students in this study were also actively involved in the learning process and worked alongside others to implement a variety of strategies. The impact of collaborating alongside others meant that students are able to develop a unified view of the curriculum and broaden the context of their learning beyond single subject areas (this also links to compromising in relation to the fragmented nature of departments which is discussed later in this section).

Given that the NZC is the foundation of our teaching it is important that we uphold the vision of this in our teaching and learning. The NZC's overall vision is to develop "young people who will be confident, connected, actively involved, lifelong learners" (Ministry of Education, 2007, p.7). Dowden and Nolan's (2006) IC model in practice in this study shows that this model of collaboration in a unified sense upholds this vision. It also upholds another aspect of the NZC – the key competencies. "People use

these competencies to live, learn, work, and contribute as active members of their communities” (NZC, 2007, p.12). The five key competencies are:

- Thinking
- Using language, symbols, and texts
- Managing self
- Relating to others
- Participating and contributing.

Of these five key competencies the competency of ‘relating to others’ has been particularly influential in the theme of compromise between the students. “Relating to others is about interacting effectively with a diverse range of people in a variety of contexts. This competency includes the ability to listen actively, recognise different points of view, negotiate, and share ideas” (NZC, 2007, p.12). The curriculum infers that students who relate well to others are open to new learning and able to take on different roles in a variety of different situations. Students who relate well to others are also aware of how their words and actions affect others. The students in this study displayed these characteristics effectively and openly discussed how sensitive they were to each other’s works.

It is not clear whether or not compromise is more prevalent in arts based integration than other forms of integration due to the unique and very personal nature of the work or if it also applies to wider integration. There could be a number of factors within this particular study influencing this, including temperament, SILO, and facilitation.

Temperament/personality

Temperament is referred to as “the biologically rooted, mostly inborn, foundations for personality and other individual traits” (Nêcka & Hlawacz, 2013, p. 182). Although in this particular study temperaments of each of the students were not tested given the artistic nature of the students it is felt that temperaments and personalities were compromised.

Temperament has been an interesting factor influencing the theme of compromise possibly because of the unique nature of this research. It was

not predicted that this factor would appear in the findings because it did not appear within the literature. It is thought it emerged because of the nature of the project being focused around the arts which generally conjures up perceptions around the temperaments of artists. Drevdahld and Cattell (1958) support this statement when they investigated the differences and similarities in personality profiles among several sub-groups of creative people compared with the normal population. Their findings found that creative people differ from non-creative people in a number of personality characteristics such as conformity, concern for propriety, and adherence to social standards (pg. 109).

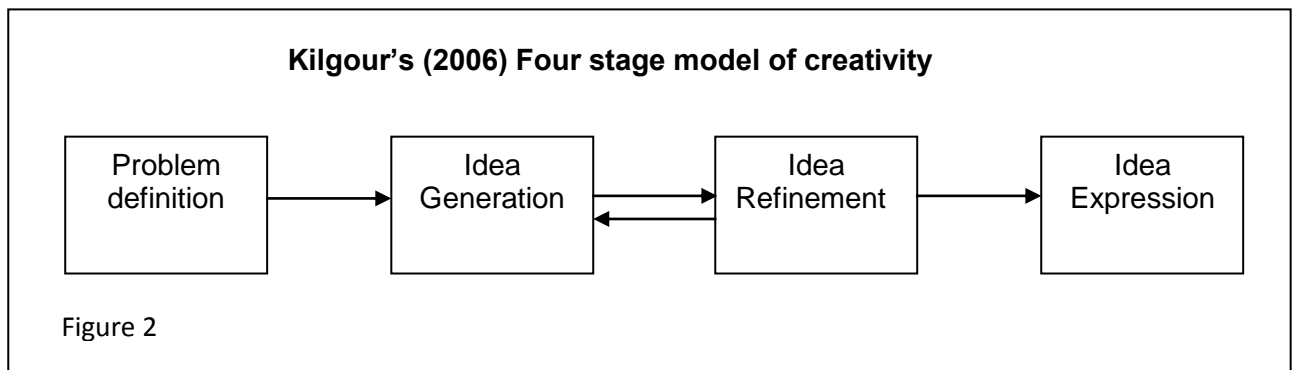
A person's temperament is generally determined by conducting behavioural profiles (e.g. The Keirsey Temperament Sorter, 1978; or the Myer-Briggs Type Indicator, 1985). Keirsey (1998) describes four temperaments which attempt to define a person's personality type. One of these temperaments is known as 'the artisan'. The artistic type is the most inclined of all the types to be involved with the fine arts, music, or literature (Keirsey, 1998, p. 204). Generally artisans experience a greater range of emotions, particularly mood swings and prefer to work independently. In this research it is difficult to accurately assume that all the students involved were of this temperament without conducting a personality test; however, there could potentially be a connection between the concept of artistic temperament and the difficulties some of the students experienced when compromising their personal ideas and ways of doing things.

Hypothetically, and from anecdotal evidence based on experience in my own teaching, arts based students are considered to be quite opinionated, like to create alone, and have an overall freedom of choice and personal autonomy when it comes to creating. The findings supported that the students favoured working alone when it came to the creative process. This is where temperament became a key factor.

The findings have noted how the students were forced to compromise their creative processes which frequently involved compromise of their temperaments and personalities. It is thought that by having to

compromise their creative processes it had an effect on emotional ownership which coincidentally carries a sense of pride for the artists.

Kilgour's (2006) four stage model of creativity (p. 35) presented in Figure 2 tracks the process and attempts to define where in the creative process the factor of temperament came in to play. Kilgour (2006) notes that after more than 50 years of research we still do not have a full understanding of the creative process. One reason for why this might be was alluded to in the findings when the students talked about the different kinds of creative processes they prefer to undertake. It is this factor that assists in answering the research question of what processes the students undertook as part of this experience because it attempts to describe the creative process the students undertook.



Problem definition is the first phase of the model and of the creative thinking process. This step refers to the definition of the problem and is said to influence all subsequent steps as the starting point for the remainder of the creative process. Therefore the way the problem is defined and constructed influences the final result, and becomes an important part of the creative process. How one person defines a problem can differ from another based on their prior knowledge. Kilgour (2006) suggests that “the amount of past experience a person has in an area, or their domain-specific knowledge, will have an impact on the method they use to solve a problem” (p. 28). Generally students draw on prior knowledge (or domain-specific knowledge) to assist them to solve problems in a similar way; however, in this study students were forced to define the problem in a new manner. Students also needed to rely on the domain-specific knowledge of their partner to assist them solve the problem.

The influence of domain-specific knowledge in this phase of the model was where temperaments were compromised. Several of the students were quite opinionated and felt that their way was the best way or that their domain specific knowledge was superior to that of their peer. Because this phase was the first stage of the process the dance students felt at times that they were on the back foot because they did not necessarily hold the domain-specific knowledge needed to contribute to the start of the collaborative project. Another matter that arose was that due to the music students holding this superior domain-specific knowledge in the early stages there was some initial frustration from the music students when they had to compromise with someone else who didn't hold the same level of domain specific knowledge they held and were subsequently suggesting ideas that they felt in their mind were impossible. The music students quickly discovered that the dance students held their own domain-specific knowledge that was essential for them to understand in order to progress and make the project successful. In this respect the learning experience was reciprocal. One of the students talked about liking to be in charge and therefore not being in favour of group work because of this. The teacher also commented on how opinionated and assertive this student could be. These temperaments came in to play particularly during these early stages as the students had to compromise and put this factor aside in order to progress to the next stage. This phase of the process was time consuming due to the discussions and extra research each student was undertaking and students had to have several meetings in order to come to a mutual decision on the direction.

Idea generation is the second phase of the model. This step involves finding other ideas to combine with the ideas that were established during problem definition. This is essentially where the links across other aspects of learning occur and is often influenced by how the problem is designed. Generally allowing the problem to be designed in a very broad manner will allow for more original ideas and subsequently creative thinking techniques to take place. Kilgour states that "creative thinking is about divergent, cross category thinking. For creative solutions to be generated

the process must involve some type of bisociative thinking that allows more divergent or cross category memory combinations to occur” (p. 32). In order for the students to develop an original solution to the problem they merged ideas from across each of their domain-specific knowledge to attempt to create an original solution to the problem.

It was during this phase that the greatest collaborations were made on the part of the students in relation to both students’ prior knowledge. This step of the model appears to fit appropriately with the design of this collaborative learning experience and although for the most part students used the philosophy of two heads is better than one it was during this phase that there was even further compromise in relation to temperament and students feeling that their idea was more creative. This phase saw students incorporating their shared ideas and creative thinking skills. Compromising creative ideas was where artistic temperament was most evident as students needed to appreciate the creative ideas of their peer and negotiate which ideas should be selected, discarded, or combined. When it comes to artistic temperaments and compromising their creative thoughts it appeared that there was some level of tension around the selection of the material. One example of this from the findings was the example of the dance student choosing to eliminate the final section of the composition. Initially this was extremely upsetting for the music student as she felt it was a personal attack on her composition; however, in the end she appreciated that her partner’s domain-specific knowledge was used to make a decision which was eventually for the greater good of the project.

Idea refinement is the third stage of the model. This step is the refinement stage and is an ongoing process, hence the arrow between this and the second step. It is during this stage that connections are made and new ideas are generated, leading to further connections and so the cycle continues. It is thought that this step involves more analytical thinking processes and relies a lot on domain-specific knowledge to link the ideas and provide justification, explanation and elaboration for the idea within the domain. The difference between this step and step two is that idea refinement requires domain-specific knowledge which is built up over time

and requires expertise whereas idea generation requires thinking across domains as a processing strategy. This is a skill that can be learnt and applied when and where it is needed.

During this phase of the project students had the opportunity to branch off from each other and continue with their own individual contribution to the collaboration. Although there were regular meetings between the students to share progress and discuss the work, essentially this phase enabled the students to still have individual creative ownership over the work. The students appreciated this process given their artistic temperaments and that the direction was well established in the first two phases trusted their partner to continue with their individual contribution to the collaboration because of their domain-specific knowledge. As part of the sharing the students were then able to refine the idea as part of the on-going process of refinement. Compromise of temperament generally wasn't too obvious in this phase as the students felt that they were fulfilling their individual contribution to the project.

Idea expression is the final stage of the model. This step relates to the ability to articulate the ideas to society. This stage requires a certain level of self-confidence. The difference between the prior three steps and this step is that the others place more emphasis on the knowledge processes that might lead to the final product whereas this step is more about the application of the creativity itself. "Creativity requires more than just the ability to generate and evaluate creative ideas internally; those ideas must be expressed and implemented. Given this definition of creativity, research into a vast range of personality factors and environmental conditions is required" (Kilgour, 2006, p. 33). This quote supports the idea that temperament and personality factors do in fact contribute to the process. As Kilgour (2006) says, "Research has indicated that creative individuals exhibit high levels of self-confidence and a lack of need for social acceptance...Subsequently, in order for an individual to achieve creativity they must possess those traits that increase the likelihood of the expression of their ideas" (p. 34).

The obvious compromise in temperament in this phase of the model was the application of the work. As previously mentioned the dance students felt a sense of obligation to appease their partner and make their partner proud of what they had achieved from their collaborative process. The music and art students were interested in the interpretation of their work; however, because their role in the process had already been met there was no sign of artistic temperament being compromised. It is thought this might be the case because the final performance was not part of their assessment.

It is clear from this four-step model that the key factors influencing the creative process were domain-specific knowledge and creative thinking techniques. These factors have clearly had an influence on artist temperament which is why it is important to understand the stages in the creative process and how these potentially influence artistic temperament.

In this study the students were particularly accepting of alternative ideas and ways of doing things. The students dealt with each other's personalities and the process in a mature manner.

Teacher B: "In a collaborative field careful consideration needs to be taken for personalities. I think we were lucky they were very mature students. Trying it with a younger age group may not have worked as well".

In the case of this study there appeared to be very minimal impact on the process because the pairings were done so in a strategic way. If the pairings had been different or there were larger groups the final result potentially would have been quite different. The maturity of the students also had a possible impact in that if you had younger students with less maturity, less experience in social contexts, or a lack of knowledge it could hinder the process. There was also a level of personal gain in this process and the students were all keen to see themselves and their peers achieve because of the assessment component of the project. One impact this had on the students was that it gave them a greater

appreciation for each other's disciplines by connecting their learning rather than fragmenting it.

SILOS – aren't talking to each other

The term *SILO* refers to “a system, process, department, etc. that operates in isolation from others” (Oxford Dictionaries, 2013). The silo effect gets its name from the farm storage silo where each silo is designated for one specific grain. In the case of this study it refers to the secondary school system and its fragmented nature, including the processes that contribute to this. It also refers to the separation of departments and faculties in schools which means they become incapable of jointly functioning with another. In this sense the function of secondary school education is much like that of farm silos in that each department is designed to educate a specific curriculum. Teachers in secondary schools are seen as specialists and appear to serve as gatekeepers of their subject making collaboration and integration across departments difficult to achieve. It is this factor in the model that most adequately answers the research question of “*How can the secondary school learning model be adapted to provide for more meaningful curriculum integration?*”

SILO has been an important influence in relation to the theme of compromise because of the nature of the project itself. Collaboration calls for connectedness across the curriculum and attempts to break down subject barriers and move away from the fragmented nature that most secondary schools are generally used to. This is where, as educators, we should be using the curriculum learning areas to explore how our programmes can create “links between learning areas” (Ministry of Education, 2007, p. 39).

The literature by Shrimpton and Godinho (2008) discussed how secondary school teachers traditionally see themselves as subject-oriented and resist buying in to integration due to pragmatics such as timetabling, challenges of crossing subject boundaries to create cohesiveness, the insecurity of abandoning textbooks, the complexity of designing assessment tasks across subjects, the lack of professional development to support teachers

in integrative curriculum planning processes, and the political climate. In the case of this study not all of these aspects were evident perhaps due to the small scale nature of the project and that it was done at an arts level where subjects were aligned to the same line in the timetable and good working relationships between staff were already established. The reasons for doing this were essentially because of the challenges and practicalities in being able to combine with other subject areas due to timetable restrictions and environmental factors. One would suspect pragmatics would come in to play if the project involved broader subject collaborations.

One of the key aspects that helped to promote the partnerships and challenge these pragmatics was the positive relationships that were formed between the teachers and subsequently the students. The relationships formed between the teachers created discussions that had a professional development element to them discussing any rewards or challenges of the collaboration and enabling them to learn more about each other's specialist subject areas. It also meant that teachers could ensure they were on the same page. Not only did these partnerships create a mutual respect for each other's disciplines on the part of the teachers but this also was modelled for the students.

This links to Nikitina's (2002) research on St Paul's School integrated studies programme and Deasy and Stevenson's (2005) research titled 'The Third Space'. The third space is a metaphor describing the positive and supportive relationships that develop among students, teachers and the school community when they are involved in creating, performing or responding to works of art. As part of this study Deasy and Stevenson (2005) reported increased satisfaction and renewal from teachers finding that many of the teachers interviewed enjoyed teaching more because of the receptiveness of their students and collaboration taking place with other teachers in the school. Nikitina's (2002) research reported similar findings when discussing the development of the close knit community as a successful element of the programme. Although this was not specifically

considered in this project it would appear from the findings that this study produced a similar result.

Shrimpton and Godinho's (2008) recognise that secondary school teachers have been less willing to integrate "seeing their role as gatekeepers acting to ensure that discipline knowledge is not devalued, diluted or subsumed" (p.3). Is it time for a shift in the education system? Teachers need to break down traditional subject barriers and recognise that in order for students to succeed in the real world they need to be able to draw from a range of fields to better integrate their knowledge into the outside world. In this respect teacher attitudes could also be considered a constraint to effective integration. Although this method of teaching is not suggesting that we compromise the integrity and value of individual subjects it is suggesting that we need to consider how we can use this knowledge to fill the 'gaps' and make more meaningful connections for the students.

Therefore the influence that this factor had in regards to compromise was compromising against the 'normal' way of doing things. The findings showed that students and staff enjoyed the opportunity to work alongside another subject area and remove some of the barriers currently established within the secondary school subject areas. The students felt that there was often the impression from teachers that their subject was more important than another. This appears to be quite a selfish approach and was reiterated in the literature by Illingworth (2010) who mentioned that often teachers are particularly self-indulgent in their own subject areas and operate in isolation to other departments.

The findings showed that there were a number of significant benefits that occurred as a result of breaking down the SILOs and compromising the norms. These included:

- Exposing the students to big picture thinking. Within the literature, Alberta Education (2007) who refers to this benefit as 'unifying learning' supports this benefit. This also relates to the literature by Broudy (1977) which recommendeds that teaching ideas holistically,

rather than in fragmented pieces, better reflects how students' brains process information, enabling students to develop a unified view of the curriculum and broaden the context of their learning beyond single subject areas.

- Enabling the students to put their learning in to context, similar to that of learning in the real world (outside school). Alberta Education (2007) refers to this as 'reflecting on the world'. This also links with the ideas presented in the literature that discuss the curriculum being organised in a holistic way and Beane's student-centred approach creating more meaningful learning in the mind of the learner and better reflecting the real world.
- Recognising and drawing on prior knowledge referred to it as 'building on prior knowledge' by Alberta Education (2007). The NZC Curriculum document states that "students learn best when they are able to integrate new learning with what they already understand. When teachers deliberately build on what their students know and have experienced, they maximise the use of learning time, anticipate students' learning needs, and avoid unnecessary duplication of content. Teachers can help students to make connections across learning areas as well as to home practices and the wider world" (Ministry of Education, 2007, p. 34).
- Experiencing a different approach to learning. Often within their subject areas the processes and approaches can become monotonous or repetitive. This project gave students the opportunity to approach their learning in a fresh and innovative way. This is supported by the benefits discussed in the literature by Alberta Education (2007) who refer to it as 'allowing flexibility'. The idea of allowing flexibility links to the subject-centred approach in that the flexibility of integration allows teachers to plan for the development of key skills and understandings that go beyond individual subjects.
- Developing a greater level of respect and appreciation for others' disciplines. They liked being given the opportunity to understand

what others were learning and being able to share in this learning. This relates to real world application.

- Sharing learning with others and were on a common journey or path with someone else as opposed to an individual journey.
- Strengthened social skills, in particular basic group social skills, such as negotiation and compromise.
- Creating partnerships which create a mutual respect for each other's disciplines on the part of the teachers and consequently this filtering down to the students (as referred to earlier in this chapter).

Each of these benefits increased efficiency and the teachers and students in this study all recognised that in order for this project to be successful the first step was realising that they needed to work together. However, in order for this to effectively take place there needs to be a paradigm shift in the way that secondary schools structure their timetables and their learning environments to make this more feasible. Coffman and Parker (2010) discuss the term systems building referring to "improving both the individual parts of the system and, more importantly, how the parts interact" (p. 86) or improving an "existing system that is fragmented, informal or missing key pieces" (p. 1). The key purpose of systems building is essentially about improving how each of the individual parts of a system (or in the case of this study departments) work and more importantly how these separate parts can interact.

The concept of systems building appears to fit alongside the integration model in that it provides a method for creating connections across the curriculum for the benefit of student learning. While many secondary school teachers would argue that their job is to educate each child in a specific subject (or in this case SILO) Johnson, Chung, Schroeder, and Meyers (2012) state that children "do not live in silos. They live across and between them" (p. 84). This is where breaking down the SILOs by implementing integration can occur with careful planning and facilitation.

Facilitation

“Facilitation is about process — how you do something — rather than the content — what you do. A facilitator is a process guide, someone who makes a process easier or more convenient. Facilitation is about movement - moving something from A to B. The facilitator guides the group toward a destination” (Hunter, Bailey, & Taylor, 1995, p. 1). Justice and Jamieson (1999) agree, seeing the facilitators as “neutral guides who take on an active role in process management” (p. 5).

Kilgour’s (2006) four stage model of creativity has already been discussed earlier in this chapter to examine the process students may have followed. It became clear from this four-step model that the key factors influencing the creative process were domain-specific knowledge and creative thinking techniques. Facilitation of the overall process on the part of the facilitator has also been influential, particularly when making compromises in relation to teaching practice and societal views. It is this factor that most suitably answers the research question of what processes the participants undertook as part of this experience.

Traditionally in education the teacher is the fount of all knowledge and takes on an autocratic role. The teachers in the project needed to compromise their traditional style of teaching whereby they might be the holders of the knowledge or have the solution for the students. The teachers in this project stepped back from this traditional view and took on a facilitation role that encouraged students to reach their destination. Justice and Jamieson’s (1999) neutral process, with respect to the content and participants, attempts to outline a process for the management of the facilitation process. They outline the focuses of the process as:

- 1) What needs to be done?
- 2) Who needs to be involved?
- 3) Design, flow, and sequence of tasks
- 4) Communication patterns, effectiveness, and completeness
- 5) Appropriate levels of participation and the use of resources
- 6) Group energy, momentum, and capability
- 7) The physical and psychological environment (Justice & Jamieson, 1999, p. 5).

This process appeared to align with the guiding process the facilitators found themselves following in this project. In points 1-3 the teachers found themselves giving more direction by doing things like deciding upon the assessment task, allocating pairs, organising collaborative meeting times, gauging group interactions, asking them questions, and providing some aspects to consider. As the process progressed from 4-6 the students moved to the point where the students had full responsibility of the process. Although the teacher facilitators stepped back they still monitored the students and were well aware of their progress throughout the process which enabled them to support the students when necessary. "Facilitation is like dancing. If you go unconscious you miss the rhythm and the trip" (Hunter, 2007, p. 65). This quote relates to the concept of establishing a supportive learning environment, or point 7 in Justice and Jamieson's process. The physical and psychological environment was a key aspect in the facilitation process. Each of the teacher facilitators in this project established supportive environments which enabled the students to create and develop their creative ideas with a level of confidence that if anything went wrong they would have the necessary back up. Learning in this way gave students power and overall ownership of their learning. They were leading the learning and the teachers were facilitating but the students were aware that if they needed support the teacher was there. If the teachers had taken a more traditional view of teaching and implemented an autocratic approach the students would not

have had the same level of ownership or empowerment that they gained from the overall result.

From the findings it was evident that the biggest impact facilitation had on this project was that it gave the students empowerment in regards to their learning. The students drove the project and developed a great deal of ownership over it. As the project progressed the facilitators responsibilities diminished as students begin to move towards co-operation or interdependence in their collaborative learning with each other. This was particularly evident in the findings with the art teacher and her art student when she encountered some challenges in the process. She interpreted her role of the facilitator as one which offered support and guidance but always allowed the students to come up with the solution. All the teachers involved felt that taking on a facilitation role enhanced the collaborative experience and gave the students a holistic learning experience. The findings showed that by compromising the traditional methods of teaching enabled the students to drive their own learning and consequently have a greater understanding of the impact.

Conclusion

Throughout this discussion it has become apparent how significant the theme of compromise was in this particular study. Temperament, SILOs, and facilitation evolved as the factors that influence this theme and were discussed at length as to why this was. In light of the discussion it is felt that there is a relationship between the three factors (temperament, SILOs, and facilitation); however, the influence or strength of the relationship is not clear from the study. Although it appears that all aspects interrelate, this needs further study to determine the strength/impact on each of the factors. The discussion showed that integration is a holistic experience that attempts to “purposefully draw together knowledge, perspectives, and methods of inquiry from more than one discipline, to develop a more powerful understanding of a central idea, issue, person, or event” (Parker, 2005, p. 452). Like integration the factors that influence it also appeared to overlap and interconnect to enhance the overall holistic experience of

the participants. Throughout the discussion there were a number of aspects that showed this cross over.

The major finding in light of the discussion that provided an element of surprise was that this study revealed a more student-centred approach. This was unexpected because in the literature review it was initially thought that the subject-centred approach was more suited to secondary schools and most of the research led to this thinking. It is uncertain whether or not the holistic nature of the arts influenced this or not and it was unexpected that this would be the case. Beane (1991) describes the typical school curriculum (subject-centred) as working on a jigsaw puzzle without a picture. In the case of this study, students were able to use their prior knowledge and the knowledge of their peers along with social skills to assist them in completing the jigsaw.

CHAPTER 6: IMPLICATIONS AND CONCLUSIONS

This final chapter will consider the implications of this study and make recommendations in light of the research findings. Discussion is in line with the research question of: *“How can the secondary school learning model be adapted to provide for more meaningful curriculum integration?”* along with the sub-questions:

- What would be the advantages for students?
- What partnerships were established with different curriculum areas and what impact did these have?
- How would you (participants) describe the processes you undertook as part of this experience?

As part of this chapter the study's limitations are discussed to enable the reader to take these in to consideration when reading the following sections. The final sections of this chapter discuss implications and suggestions for future research and final conclusions.

Limitations

As anticipated there were some limitations to this research project. This study was a very small scale qualitative project and for this reason this should be considered when reading the interpretations as definitive conclusions cannot be drawn. As previously mentioned in Chapter Three this was an exploratory research study which does not provide a specific answer for the research question but aims to identify key issues and variables and present some possible ways forward based on what the data presents.

The study involved six female students and three teachers across the IB arts subjects of dance, music, and visual art in a private secondary school. Consequently given the size of the project, the gender make up, the course, and the study taking place within a private school we have no way of knowing to what extent these particular students or secondary school departments are similar or different from other such departments in secondary schools across NZ. Furthermore, because the sample is small

and very specifically focused on arts students, there is also no way to establish that this data is representative of the larger population or relevant to other subject areas. A number of the constraints discussed in the literature (e.g. time constraints, lack of professional development in this area for teachers, lack of support from management, and the restrictions of assessment) did not become evident in this study, perhaps due to these factors.

The final limitation was the researcher as teacher meaning that there could be a level of subjectivity in this study given the nature of thematic analysis and the meanings being identified and constructed from the researcher's perspective. As mentioned in Chapter Three the researcher in this study was the dance teacher. This could not be prevented as there were no other dance teachers within the school or another group of subject to collaborate with. Given the researcher's desires and interests in this field, she chose to eliminate herself from the data collection and analysis process and put triangulation procedures in place to prevent subjectivity where possible.

Implications

There are a number of key findings from this project which add to the knowledge available on arts integration and specifically collaborative arts integration in secondary schools.

One of the major findings was that collaborative learning is a powerful strategy for enhancing student's social and motivational skills, specifically that of compromise. Other findings included the benefits it had on increasing teacher relationships and making connections across the curriculum. These benefits concur with other research findings by Ruppert (2006), Lorimer (2009), Longley (1999), Stevenson and Deasy (2005), Redkin and Redman (2006), and Magasamen and Battro (2011). It was also discovered that there are some clear links in the findings to the literature around Beane's (1997) student-centred approach, an approach that was originally thought not to align with the secondary schooling

environment. It is unclear if this was due to the arts influence or not and further research in this area might confirm this.

Additionally, the findings from this study showed that it is possible to implement an arts integrated approach into a secondary school. This study aimed to help bridge the research gap into whether it is possible to implement a model like arts integration and subsequently curriculum integration in the NZ Secondary School sector. It is felt that there is a lack of adequate systems, knowledge and professional development in place to ensure effective implementation and success of wider collaborations in secondary schools.

In order to effectively implement a model like this in the secondary school learning environment involves a paradigm shift which requires:

- A change in attitude of teachers in their current practice
- Ensuring ample time to achieve the common goal/destination
- Ample resources (including teachers)
- Guidance and professional development if necessary
- Support from senior management and flexibility in timetable structures and systems

Therefore in order for a model like this to succeed, secondary schools need to adjust their systems to create learning environments for the twenty-first century learner. These learning environments should encourage students to become actively engaged life-long learners who are able to relate well to others in order to align more appropriately with the NZC.

Recommendations for further research

There is a great deal of research on curriculum integration from the primary school sector but very little at a secondary school level, and even less at an arts integration level, particularly in Aotearoa/NZ; therefore more research in this area is necessary. As was discovered throughout this study, curriculum integration is a complex method and there are a number of approaches towards achieving this. This particular study looked at an

Arts Integration model for curriculum integration and more specifically used collaboration to achieve this. The reasons for keeping this study focused on the arts and not branching out to other learning areas was because of the challenges and practicalities in being able to combine with other subject areas due to timetable restrictions and environmental factors. Further research in to whether it is possible to implement a model like arts integration and subsequently curriculum integration in the NZ Secondary School sector could provide more extensive research opportunities. Further research in to the learning benefits for secondary school students could also help bridge the research gap. It would be valuable to replicate this study using a greater range of curriculum subjects, rather than limiting it to the arts and using a larger sample of participants (e.g. a specific year group such as year 10 or across an NCEA internal assessment).

Conclusion

This research project provides insight into the implementation of an Arts Integration model in NZ secondary schools. This is a fresh and innovate method of teaching that could provide motivation for other subject collaborations within a secondary school context. This study makes a valuable contribution to the knowledge available here in NZ around CI and specifically arts integration. Regardless of the students in this project being at a senior level in the secondary school this approach has the potential be implemented at any level.

Although it was not intended that this project look at significantly developing student social skills, such as compromise as the project progressed this became a significant aspect of this study. Although this was the most noteworthy of the findings other findings included increasing teacher relationships, breaking down subject barriers and making connections across the curriculum. In answer to the research question: *“How can the secondary school learning model be adapted to provide for more meaningful curriculum integration?”* It is essential that in order for a model like CI to succeed, secondary schools need to adjust their systems in order to create learning environments for the twenty-first century learner. These learning environments should encourage students to become

actively engaged life-long learners who are able to relate well to others in order to align more appropriately with the NZC.

The findings from this project give good reason for further research into CI and challenging the secondary school learning model. My hope is that this project will provide motivation for other subject collaborations which will potentially result in more meaningful CI experiences across the curriculum areas within a secondary school context.

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APPENDICIES

APPENDIX A: LETTER TO PRINCIPAL

Caroline Gill,
10 Florida Place,
Cambridge.

Steve Robb,
Saint Peter's School,
State Highway One,
Cambridge

Monday 11th March, 2013

Dear Mr Robb,

I am writing to request permission to use a small cohort of St Peter's Music, Dance, and Art students and 2 members of current staff as part of my Masters of Education Dissertation.

The Dissertation (which is due to be completed by September 1st, 2013) looks at: "How an arts integrated model can be implemented into a secondary schools learning environment".

As part of this I would like to have the opportunity to utilise a project I have been facilitating between the Music, Art and Dance departments and their IB students. The students have been following a creative integration process which is due to be completed at the end of Term 2 and has taken a year to complete from the initial inception. As part of the research I would like to collect some feedback in the form of questions, focus groups, and semi-structured interviews. Although every effort will be made to maintain the students' confidentiality, this cannot be guaranteed.

The context of the study is to look into the general issues around the topic, responding in a literature review, focusing on the Arts Integration context, and supporting this with the research and focus group findings.

Some of the things I would be looking at are:

- What would be the advantages for students?
- What partnerships were established with different curriculum areas and what impact did these have?
- How would you describe the processes you undertook as part of this experience?

I look forward to hearing back from you and am more than happy to discuss this further with you in person should you wish to.

Kind Regards



Caroline Gill

APPENDIX B: LETTER OF RESPONSE FROM PRINCIPAL

Principal, Mr SF Robb

M.A.(Hons) (Victoria), Dip Ed. Studies (Victoria), Dip Tchg.

12 March 2013

Ms C Gill

C/- St Peter's School, Cambridge

Dear Caroline

Thank you for your letter requesting permission to use some students and staff as part of your Masters of Education Dissertation.

Approval is granted and I do wish you well in your research.

Please ensure that you seek the approval of the students parents/caregivers selected for the focus groups.

Yours sincerely



Stephen F Robb

Principal



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APPENDIX C: LETTER TO PARENTS OF STUDENT PARTICIPANTS

Caroline Gill,
C/O: St Peter's School,
State High Way One,
Cambridge 3450.

To Whom It May Concern, (parent's names inserted here)

My name is Caroline Gill and I am the Head of Department for Dance at St Peter's School, Cambridge. I am currently completing my Masters of Education Dissertation which involves a small cohort of St Peter's School music, dance, and arts students and two members of current staff. I am asking if your daughter could participate in a research study on 'How an Arts Integrated learning model can be implemented into a secondary school learning environment'.

Over the past year (2012-2013) students participated in a collaborative learning experience involving either dance and music or dance and visual art as part of one of their IB Diploma assessments. The final assessment will be completed by the end of Term 2 where presentation of all disciplines will occur at the IB Dance Showcase.

As part of this collaboration I would like to evaluate the experiences of the students involved by inviting your daughter to take part in a short written questionnaire that will take no longer than 15 minutes to complete, followed by a one hour focus group conversation (at a time negotiated between the researcher and the participants) which aims to collect feedback in the form of questions around the implementation of the model and the creative process.

Some of the questions that the study focuses on are:

- What would be the advantages for students?
- What partnerships were established with different curriculum areas and what impact did these have?
- How would you describe the processes you undertook as part of this experience?

Participation in this research is completely voluntary and your daughter or you have the right to say no, change their mind, or withdraw. Should your daughter wish to withdraw they may do so up until data analysis has commenced (on, or before, 23 June 2013), by contacting the researcher (Caroline Gill) either in person, via email, or by phone. Research deadlines mean participants cannot withdraw from the study after this date. Whether they choose to participate or not will have no affect on their final grade or on future academic results.

To indicate your informed consent, could you please fill in the attached form and return to me by Friday 24 May 2013. If you have any questions regarding this study please feel free to contact me on 027 664 1978 or by email at carolineg@stpeters.school.nz or the research supervisor Mr Anthony Fisher (Senior Lecturer, Department of Professional Studies in Education, The University of Waikato) Ph (07) 838 4500 Ext. 7836 or afish@waikato.ac.nz

Kind Regards



Caroline Gill

Title of the study:

How can the Secondary School learning model be adapted to provide for more meaningful curriculum integration?

CONSENT FOR STUDENT TO PARTICIPATE

- We understand and agree that as part of this research some of the focus group responses will be used to formulate conclusions. As a participant the student will own the raw data and the researcher will own interpretation of data and the final dissertation.
- We understand that the study will be published as a dissertation and may be used in academic publications and presentations.
- We understand that no student will be identified individually in the research.
- Participants will be able to request a copy of the final submission should they wish or access the electronic version from research commons.
- I consent to my child participating in the research study being conducted by Caroline Gill for the purposes of her Master of Education research.

Name of Student:

Signature:

Name of Parent:

Signature of Parent:

Address:

.....

Phone No:

Caroline Gill,
C/O: St Peter's School,
State High Way One,
Cambridge 3450.

To Whom It May Concern, (Staff names inserted here)

As you know I am the Head of Department for Dance at St Peter's School, Cambridge and am currently working towards completing my Masters of Education Dissertation which involves using a small cohort of St Peter's School music, dance and arts students.

As a teacher of one of these subjects you are being asked to participate in a research study on 'How an Arts Integrated learning model can be implemented into a secondary school learning environment'.

Over the past year (2012-2013) students have taken part in a collaborative learning experience involving either dance and music or dance and visual art as part of one of their IB Diploma assessments. The final assessment will be completed by the end of Term 2 where presentation of all disciplines will occur at the IB Dance Showcase.

As a staff member you are asked to take part in a one hour one-on-one semi-structured interview which aims to answer questions relating to:

- What would be the advantages for students?
- What partnerships were established with different curriculum areas and what impact did these have?
- How would you describe the processes you undertook as part of this experience?

Participation in this research is completely voluntary and you have the right to say no, change your mind, or withdraw. Should you wish to withdraw you will need to do so on, or before, 23 June 2013, by contacting the researcher (Caroline Gill) either in person, via email, or by phone. Research deadlines mean participants cannot withdraw from the study after that.

To indicate your informed consent could you please fill in the attached form and return to me by Friday 24 May 2013. If you have any questions regarding this study please feel free to contact me on 027 664 1978 or by email at carolineg@stpeters.school.nz or the research supervisor Mr Anthony Fisher (Senior Lecturer, Department of Professional Studies in Education, The University of Waikato) Ph (07) 838 4500 Ext. 7836 or afish@waikato.ac.nz

Kind regards



Caroline Gill

Title of the study:

How can the Secondary School learning model be adapted to provide for more meaningful curriculum integration?

CONSENT FOR TEACHER TO PARTICIPATE

- I understand and agree that as part of this research some of the responses generated from the semi-structured interview will be used to formulate conclusions. As a participant I own the raw data and the researcher will own interpretation of data and the final dissertation.
- I understand that the study will be published as a dissertation and may be used in academic publications and presentations.
- I understand that I will not be identified individually in the research.
- Participants will be able to request a copy of the final submission should they wish or access the electronic version from research commons.
- I authorise Caroline Marie Gill to use the above information for the purposes of her Masters of Education research.

Name of Participant:

Current Position:

Signature:

Address:

.....

Phone No:

STUDENT QUESTIONNAIRE

Dear Participant,

As part of the data collection process for this research study there are two steps for you.

The first step in this process involves you answering the following two questions which should take you approximately 15 minutes to complete.

The idea of these questions is to enable me to gather some information prior to the second step of the process which will involve you taking part in a one hour focus group discussion with the other research participants.

Could you please answer the following two questions in as much detail as you can and return to the researcher (Caroline Gill).

- 1) You followed a collaborative process as part of this learning experience. What were the advantages? (e.g. what was successful, what were some of the rewards)

- 2) What disadvantages were there for working in a collaborative manner? (e.g. what challenges did you face)

STAFF SEMI-STRUCTURED INTERVIEW

QUESTIONS

As part of the data collection process with the 2 staff members I foresee this taking the form of semi-structured one-on-one interviews which will last up to 1 hour each. The questions I intend to ask include:

- 1) What do you think was successful in implementing the collaborative model?
- 2) What do you think was not so successful in implementing it and why?
- 3) What helped to promote the partnerships that were established between the curriculum areas?
- 4) What didn't help to promote the partnerships that were being established?
- 5) What advantages do you see in implementing a model such as this into a secondary school setting?
- 6) What challenges do you think implementing a model such as this faces in a secondary school setting?
- 7) How could a model like this optimise student learning?