Teachers and Curriculum

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Teachers and Curriculum is an online peer-reviewed publication supported by Wilf Malcolm Institute of Educational Research (WMIER), Faculty of Education, The University of Waikato, Hamilton 3240, New Zealand. It is directed towards a professional audience and focuses on contemporary issues and research relating to curriculum pedagogy and assessment.

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Teachers and Curriculum welcomes

- innovative practice papers with a maximum of 3,500 words, plus an abstract or professional summary of 150 words, and up to five keywords;
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- book or resource reviews with a maximum of 1000 words.

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TABLE OF CONTENTS

General Edition

HOW CAN THE SECONDARY SCHOOL LEARNING MODEL BE ADAPTED TO PROVIDE FOR MORE MEANINGFUL CURRICULUM INTEGRATION?

CAROLINE GILL
Tauranga Girls College

ANTHONY FISHER
Faculty of Education
The University of Waikato

Abstract

Interest in curriculum integration (CI) has resurged recently as schools seek to bring together knowledge from separate curriculum areas to create a more holistic, integrated learning experience for students 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'. This study set out to investigate the introduction of a curriculum integration model in a secondary school setting, focusing on the arts. The findings 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.

Keywords

Curriculum integration, arts, senior secondary

Introduction

There has been much debate over the years surrounding the definition of curriculum integration (CI) and within the literature there are a raft of connected definitions that lack both 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 which incorporates both philosophy and practicality which according to Parker (2005) "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" (p. 452). This is the definition that has been used for this study. Historically CI has been considered in relation to two major categories, subject-centred and student-centred.

Student-centred CI dates back to the work of Dewey (1916, 1936, 1938). Dewey (as cited in Brough, 2010), believed that the educative process should be viewed as a whole and that the process begins with the child and the notion of the child understanding concepts and structures by making connections to a student's previous knowledge. This connection will help students gain a better overall understanding of their learning. This notion of making connections is developed by Fitzgerald (2001) who makes links to student-centred CI by identifying that the students learning begins with their own experiences. These ideas are fundamental to the core essence of CI, however, secondary school teachers, who are seen as subject-orientated, have been less willing to accept integration as part of their practice, "seeing their role as gatekeepers acting to ensure that discipline knowledge is not devalued, diluted or subsumed" (Shrimpton & Godinho, 2008, p. 3). Shrimpton and Godinho (2008) have also gone on to identify that often the resistance to integration within a secondary school context is due to pragmatics, e.g., timetabling, challenges of crossing subject boundaries to create cohesiveness, complexity of designing assessment tasks and lack of professional development. Within New Zealand similar issues exist, as well as the push of literacy, numeracy and requirements to teach standards set by such bodies as The New Zealand Qualifications Authority. Though there appears to be a lack of literature within the New Zealand secondary school context to support this it appears that these factors have an impact on the potential development of integration.

Two studies within New Zealand secondary schools which have considered the benefits of CI are; The Freyberg project (Nolan & McKinnon, 1991) which began in 1986 as a four year project, and Alfriston College (Locke, 2008). The integrated programme at Freyberg combined biology, computer studies, English and geography. These were drawn together around a central theme. Following the research programme Integrated Studies became the learning approach for all junior school students, due to the positive outcomes that were identified. What became apparent was the ease in which the curriculum could be incorporated into a theme based approach. Locke (2008) discussed a model of integration adapted by Alfriston College. This model is comparative to Var's (1987) model of correlation as it fostered support and guidance using an integrative planning approach. This research identified a number of benefits which included exposing students to integrated thinking and learning, collaborative planning by heads of departments, avoidance of overlap due to collaborative planning, and establishing a professional learning community.

There appears to have been no follow up to either of these two studies, which suggests an identifiable gap in the research related to integrating the curriculum within a secondary school context in New Zealand. This apparent lack of research is particularly true in the area of arts integration. There are distinct benefits to be gained from arts integration as well as those already identified such as improvement in student grades and attitudes (Lorimer, 2009) and positive aspects for personal and social growth (Rabkin & Redmond, 2005). Fiske (1999) commented that the arts have the potential to reach students not normally reached and transform the environment for learning. Fowler (1994) has further added to these benefits by stating "the arts humanise the curriculum while affirming the interconnectedness of all forms of knowing … they teach divergent rather than convergent thinking" (pp. 4–5).

Implementing an integrated approach has its benefits, however, it also has its challenges. Many non-specialist arts teachers have fears around developing and implementing an arts integrated curriculum (Burnaford, Aprill, & Weiss, 2001; Shrimpton & Godinho, 2008). Teachers need to break down traditional barriers, as identified by Pigdon and Wolley (1993) and Vars (1991) because the fragmented nature of the curriculum and delivery in subject specialist areas is not allowing students to develop depth or draw from a range of fields to better integrate their knowledge into the world (Jacobs, 1989). One of the factors preventing this from occurring is the "territorial" nature of teachers. Beane (1995) has discussed how subject loyal teachers rebel against integration stating that they resent being distracted from their usual focus on content. Locke (2008) identified similar concerns in reiterating that secondary teachers describe themselves by their subject speciality. However, we should not see these specialist skills as not being relevant or compromising the integrity and value of individual subjects as without separate subject knowledge there would be no purpose for integration. Beane (1995) believes that the "separate subjects are not the enemies of curriculum integration" (p. 622). Integration in this sense should be a seen as a way for students to make meaningful connections and to fill the gaps in knowledge. As such CI should not abandon the skills and understandings of separate subject areas but enhance them by crossing over learning areas.

A key component to this is collaboration across areas. Burnaford, Brown, Doherty and McLaughlin (2007) approach of "Arts integration as collaborative engagement" (p. 14) would seem an ideal fit for arts integration within the secondary context. Influential research conducted by Catterall and Waldorf (1999) and Hetland and Winner, (2001), in this area has looked at collaborative engagement between schools and community, e.g., an outside expert working alongside the classroom teacher. Therefore the opportunity was identified to create a collaborative engagement model within a secondary school using its current human resources e.g. arts specialists such as music, dance, and art teachers. This research would not only provide further information into CI, which is a limited area of research in the NZ secondary context, but it would also offer insights into how the secondary school learning model could be adapted to provide for more meaningful CI.

This study set out to introduce an Arts Integration model, namely 'arts integration as collaborative engagement', within a NZ secondary school to consider the following questions:

- What would be the advantages for the students?
- What partnerships were established with different curriculum areas and what impact did this have?

> • In undertaking this collaborative approach what was the process undertaken?

Method

This was an exploratory study conducted using a qualitative approach. This approach provides the opportunity to "make sense of the data in terms of the participants' definitions of the situation, noting patterns, themes, categories and regularities" (Cohen, Manion, & Morrison, 2007, p. 461). Once the data was gathered a thematic analysis was undertaken to provide understanding of the information. Braun and Clarke (2006) describe thematic analysis as "a method for identifying, analysing 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). A further reason for choosing this method was that there was no specific prior research within the New Zealand context to compare it to, meaning it was important for 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 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). It was intended that themes in this study would be discovered through inductive analysis; however, some emerged through the data collection process. In following the six phases and the inductive method, familiarisation of the data was carried out by studying open analysis of field notes, reading through student questionnaires, listening to audio recordings, taking note to record key ideas, phrases, and emerging themes (Creswell, 2000). This process allowed the researchers to gain an understanding of the data and eliminate irrelevant data. During this familiarisation stage key quotes from the participants were also recorded. 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. As part of the final stages of the data analysis the themes were reviewed and contextualised.

It is important to note the subjectivity of research and therefore attention must be paid to interpretive practices and processes as Gubrium and Holstein (2002) state "the value of interview data lies both in their meanings and in how meanings are constructed" (p. 16). Given the nature of thematic analysis that meanings are identified and constructed from the researcher's perspective there is a level of subjectivity in this study as the researcher is the dance teacher; however, to counter this in some way, she chose to eliminate herself from the data collection and put triangulation procedures in place to prevent subjectivity.

Participants

This study was conducted at a private co-educational secondary school catering for students from Years 7 to 13. The school 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).

The participants for this study were six IB Diploma students (two music, three dance, and one visual arts) who were invited to be part of an Arts Integrated collaboration experience and three teachers. The six students were all female and in Year 13. They worked collaboratively in three pairs with one of each pair being a dance student and the second member of the pair either a music or art student. The three teachers became joint facilitators in the project. As part of the initial planning phase for the IB Diploma programme one of the authors (C. Gill: the dance teacher) began to explore the idea of collaborating with the two other arts teachers, music and visual arts.

Data Collection

Data was collected from the two groups of participants described above (students and teachers, except for the author). As part of collecting data from the students a two-step process was followed:

- A written questionnaire.
- A focus group which involved all students.

The written questionnaire consisted of two questions asking students to comment on the process they followed and the advantages and disadvantages in working in a collaborative manner. The questionnaire enabled the researcher to analyse this information to gather the 'focus' and 'themes' for discussion in the focus group. The teachers participated in a semi-structured one-on-one interview. Using an interview process enabled the researchers to gather information on the participants' knowledge, information, and opinions related to the process. Though the interviews were fairly controlled it still allowed for some spontaneity and allowed the researcher to probe for further responses on more complex issues.

Findings and Discussion

The key theme that emerged from the data analysis was compromise, which was underpinned by three influencing sub-themes, temperament, silo effect and facilitation.

Figure 1:   Relationship of compromise to the sub-themes that influence it.
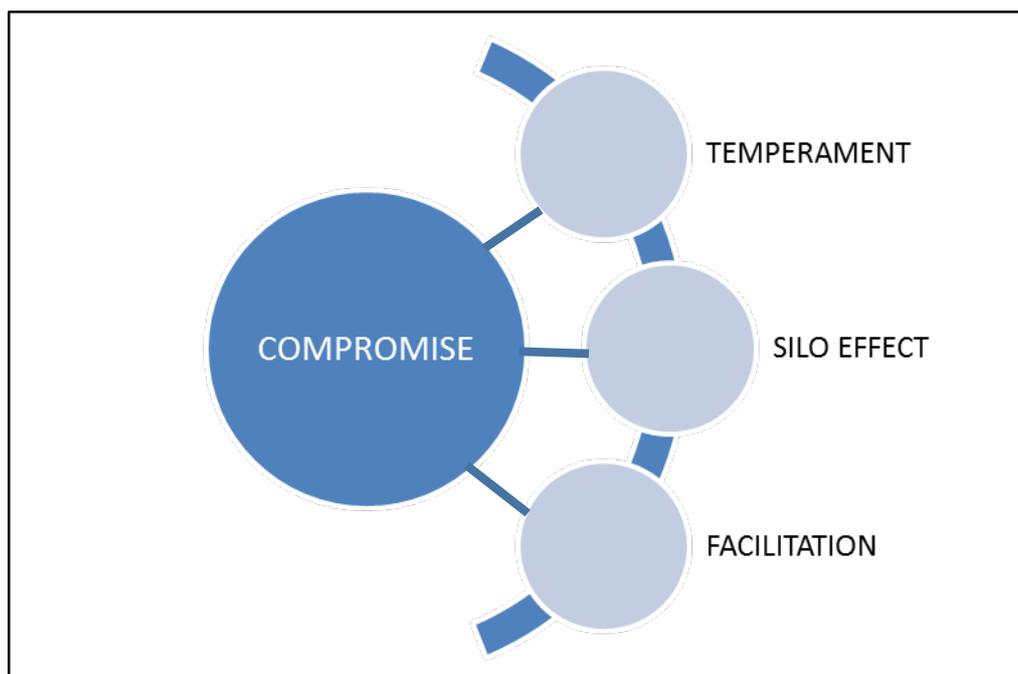
The diagram shows the main theme compromise, which is understood to mean "an agreement or settlement of a dispute" (Oxford Dictionaries, 2013). Given the nature of the collaborative project undertaken by the students it was expected that compromise would be a significant skill demonstrated by the students. However, how often this was identified in relationship to the three sub-themes, temperament, silo effect and facilitation was not predicted. The theme of temperament within this study refers to the "biologically rooted, mostly inborn, foundations for personality and other individual traits" (Necka & Hlawacz, 2013, p. 182). Temperament as an influencing factor was not predicted to appear in the findings as it did not appear in the literature. However it is considered it emerged due to the project being focussed around the arts which generally generates perceptions around the temperaments of artists. Silo effect in this study refers to the fragmented nature and the separation of departments/facilities that is typical of the organisational structure of secondary schools. Silo effect has been an important influence to the main theme of compromise because the very nature of the project carried out by the students' calls for collaboration across the curriculum areas and a

move away from the fragmented nature of secondary schools curriculum organisation. Facilitation in relation to this study is about process rather than content. The teacher's role became one of guide or facilitator in guiding the students towards project completion. Justice and Jamison (1999) describe facilitators as "neutral guides who take on an active role in process management" (p. 5). The teachers had to change their traditional style of teaching from autocratic to more collaborative providing guidance related to processes rather than knowledge or solutions.

Throughout the analysis the significance of compromise was apparent along with the factors of temperament, silo effect, and facilitation. It is felt that there is a relationship between these three factors in that they appear to interrelate; however this needs further study to determine the strength/impact. The results indicate 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 be interconnecting to enhance the holistic experience.

The major finding of the study was the revelation of a student-centred approach. This was unexpected as it was initially thought that the subject-centred approach was more suited to secondary schools. It is uncertain if the holistic nature of the arts influenced this or not. Beane (1991) as cited in Brough (2010), describes the typical school curriculum (subject-centred) as working on a jigsaw puzzle without a picture. In this study, students used their own and others prior knowledge along with social skills to assist them in completing the jigsaw.

The study also identifies further findings which add to the knowledge available on arts integration, specifically collaborative arts integration in secondary schools. One of these 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), Deasy and Stevenson (2005), Rabkin and Redman (2005), and Magsamen and Battro (2011).

In order to effectively implement a model like this in secondary schools involves a paradigm shift which requires

- a change in attitude of teachers in their current practice;
- ample time to achieve the common goal/destination;
- ample resources (including teachers);
- guidance and professional development;
- support from senior management; and
- flexibility in timetable structures.

The findings provide a rational for further research into CI and challenging the secondary school learning model. It is hoped that this study will provide motivation for other subject collaborations, potentially resulting in more meaningful CI experiences within secondary schools.

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