Online communities of practice in the secondary music classroom: A tool for increased collaboration and peer to peer learning?

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A thesis submitted in partial fulfilment of the requirements for the degree of Master of Applied Practice

Unitec Institute of Technology, 2019

ABSTRACT

The possibilities open to 21st century learners in learning music are fast diversifying. The master–apprentice model that is often found in formal music education offers one such approach. An alternative that is being embraced by many musicians is that of peer learning in online communities of practice. This study examines how the community of practice model might be applied in formal music education within the context of a remotely located New Zealand secondary school.

This study was undertaken using practitioner research along with drawing on aspects of Kaupapa Māori methodology. The data gathering methods employed were those of an electronic questionnaire, observation, and a focus group. These tools gathered insight into the students' perception on the effects of participation in an online community of practice on their learning.

It was found that participation in an online community of practice afforded greater opportunity for peer to peer learning and collaboration, however, the participants were not always comfortable with seeing themselves as 'experts' when engaging in these learning models. The community also remained largely teacher driven rather than student driven. Thus, the gains in student agency observed in this study were modest. It was found that social media was an appropriate forum for an online community of practice, but it was important to consider student perception of the social standing (amongst those students) of the social media platform chosen.

The recommendations of this study are that in order to see more of a radical transformation in student agency, the online community must be grown further with a focus on strengthening students' capacity to be active participants. Furthermore, a greater cognitive diversity in the community is needed, which would be best accomplished by engaging more schools in the community. For educators looking to apply this model in their own setting, this study recommends the careful scaffolding of students so they can participate successfully, along with careful selection of platform, are key.

ACKNOWLEDGEMENTS

Undertaking a research study such as the one presented in this thesis is a time-consuming and involved task. There are several people that have supported me through this, and I would now like to take the time to acknowledge them.

I would like to acknowledge the senior leadership team and the Board of Trustees at my school for their support and allowing access for the research study to be undertaken, along with their support for my application to TeachNZ for study leave to undertake it. I would also like to acknowledge my students, who were willing to engage with the research process.

The support of my supervisor, Dr. Jo Mane, has been fundamental to the completion of this thesis. I thank her for her time, effort, and feedback, all of which have guided me throughout the research process.

Christine and Maui Weepu have provided excellent support to me in the area of cultural responsiveness in this study. My conversations with Christine and Maui have been particularly illuminating and have challenged the way I think about many aspects of education. I thank them for so freely giving their time to me.

My focus group session was run by Madeline Campbell and I thank her for graciously giving up her time to help me undertake this research. I'd also like to thank Yvonne Simpson for her support in approaching potential research participants during the study.

TeachNZ have played a pivotal role by allowing me to undertake this research over the course of a year whilst still receiving full pay. I wouldn't have been able to complete this study without this support, and for that I thank them.

Finally, I'd like to thank my wife for her support throughout the year as I've completed this study.

TABLE OF CONTENTS

CHAPTER ONE: INTRODUCTION

Background

Education around the world is faced by the increasing challenge of meeting the needs of 21st century learners. Within the context of music education, more and more learners are experiencing greater learner agency and collaborative opportunities through sites such as YouTube and online forums than offered within the formal music education system (Waldron, 2013). Despite this, music teachers have generally been slow to incorporate ICT into formal education classroom settings (Crawford, 2017; Bauer, 2014). Waldon (2013) reinforces this observation by noting that the lessons that can be learnt from informal online music communities have not been headed by formal music educators. The New Zealand Ministry of Education's (2014) statement of intent for 2014-2018, however, nominates the integration of ICT as a key goal for the New Zealand education system. In addition to this, the New Zealand Ministry of Education has nominated the importance of building collaborative learning as a key pedagogical model with the Ministry of Education's (2015) working paper on education in 2025 includes as one of its visions that learning will be highly collaborative. Bolstad, Gilbert, McDowall, Bull, Boyd & Hipkins' (2012) paper on future oriented learning and teaching also notes that teachers should aim to move to where learners and teachers collaborate together in a knowledge building environment. This type of collaborative learning is a key feature found in informal online music communities of practice and one that has been shown to greatly increase agency of learners (Kenny, 2013; Partti and Sidsel, 2010; Waldron 2009; 2012; 2013). Thus, music educators find themselves at a crossroads—if they cannot adapt their teaching practices to meet the needs of 21st century learners, the role of formal music education may start to diminish into obscurity, replaced by informal online learning communities.

Context

This research project has been conducted at a remotely located year 7-13 New Zealand secondary school using a practitioner research approach. The school is a state coeducational school and has a roll of approximately 330 students, with roughly 30% of those students identifying as Māori. Geographically, the school is isolated—it

is the only secondary school in the town, with the nearest secondary school being over 50km away.

In 2015 our school started down the path of bring your own device (BYOD), with the requirement that all students in years seven to thirteen have a device at school. This involved a significant change in the mode of content delivery in the classroom and the relating pedagogy. Whilst the journey was not a completely smooth one (as you may expect large initiatives such as this inevitably hit snags), the school had made a positive start in modifying its practices in an attempt to better meet the needs of 21st century learners.

In early 2016, however, the school suffered a major setback when several buildings were lost in a fire. This resulted in the first term of 2016 being spent off-site, and, when teaching staff and students returned to site, much of the infrastructure that was needed to provide internet to the school was gone (and wouldn't be fully functional untill early 2017). In an effort to reinvigorate the school's BYOD journey, the school became part of a Manaiakalani Outreach cluster in 2017 with the associated pedagogy based around a learn-create-share model (https://sites.google.com/a/manaiakalani.org/manaiakalani-outreach/pld/Pedagogy) and professional development targeted at year seven and eight teachers.

In 2018 the involvement in the Manaiakalani Outreach now covers years seven to ten, with the expectation that all students in those year levels are involved in one-on-one digital immersion, where digital immersion involves a high percentage of class time spent using devices to complete class content. Whilst a fair number of the students in the senior school (years eleven to thirteen) have devices (as most were at school in 2015 when we went to a BYOD model), it is rarely the case (certainly in my senior music class) that one-on-one digital immersion is possible without borrowing chromebooks from the school library, or, using a computer room. This can make the effective use of ICT in the classroom difficult as those resources (school chromebooks, computer room access) are not always available.

The music department at my school is relatively small. Students are required to take one trimester of music in years seven and eight. From year nine onwards it is an

elective subject. The senior class size fluctuates from year to year, sometimes being as small as four to five students and other years it may have as many as fourteen to fifteen. It is always a mixed level class, with NCEA level one to three in the same group. In 2018, the class size started at thirteen students, though by the end of this research project, that number had dwindled to eight.

The musical opportunities for students at my school are in some ways limited. Being in a small town, they don't have the option of going out to see an orchestra or professional ensembles as often as you may in a big city. The department itself is small, and due to the small school roll, we only have access to a handful of itinerant teaching hours. As of 2018 the school does not have a school orchestra, concert band or jazz band, nor any students (asides from one or two) learning any of the instruments that would usually populate these ensembles. Thus, the majority of students undertaking senior music come from a pop/rock background and come with little ability to read music and minimal theoretical background (other than what they have gained in a trimester in their elective classes taken at school).

It is the combination of need to try and meet the needs of 21st century learners, our school's BYOD journey, and the challenges my students face (which are outlined further below in the rationale for this study) that has led to me undertaking this research project.

Research Aim and Questions

Aim

To investigate how an online community of practice might be used to build collaboration and peer to peer learning as part of a formal music education context in remotely located secondary schools.

Questions

1. How might participating in an online community of practice encourage collaboration and peer to peer learning for secondary school music students in remotely located secondary schools?

2. What are students' perceptions of the implications on their learning in using a community of practice model?
3. How might I build my students' capacity to participate in online communities of practice as part of their music education experience?

Rationale

The impetus for this study is to look for a possible alternative (or at least supplementary) approach to that of traditional formal music education in order to address the challenges that my learners face. The first challenge is that many of my students do not spend a large amount of time practicing their instruments outside of scheduled school music classes. This is for a variety of reasons. Some don't own their own instruments which results in them needing to practice on school instruments. Others struggle with work and other commitments making it difficult to find time at home. Some don't have an appropriate practice space outside of school. Therefore, many students need to spend class time as personal practice time if they are to advance on their instruments. A direct result of this is that students often silo themselves off from one another in order to focus entirely on their own personal practice routines which results in them not gaining any benefit from collaborative or peer to peer learning opportunities. The second significant challenge my students face is the lack of access to itinerant teachers, often meaning that there is a lack of specialised expertise available to students. Thirdly, the isolation from being in a small town has meant students don't often get the opportunity to see what a wider cross-section of music students are doing and achieving at the same year level. This effect is magnified by the small size of the music department at my school which results in a lack of certain opportunities that larger schools take for granted (such as being able to play in a school orchestra or band). Whilst this research project has started as a small-scale trial with my own students, it is hoped that if positive results are discovered this will give impetus for other remotely located secondary schools to join this online community of practice in an effort to bridge isolation issues.

There is a growing body of literature around the positive outcomes for music students when they engage in peer to peer learning and collaboration in online

environments (Hanken 2016; Kenny 2013; Lebler 2007; 2008; Partti and Sidsel 2010; Reid and Duke, 2015; Ruokonen and Ruismäki, 2016; Salavuo, 2008; Waldron, 2009; 2012; 2013). Whilst it is the case that the bulk of the research is either centred around tertiary education, or, informal music education contexts (such as online forums), it does give a promising direction for me to explore with my own music students in a secondary context in New Zealand. The lack of research into such approaches in a secondary context might be explained by the fact there has been an observed reluctance to embrace ICT by music educators (Crawford, 2017; Bauer, 2014). If music educators are to meet the need of 21st century learners, the use of ICT must become part of our practice or there is a great chance that we will become redundant, replaced by YouTube videos and online forums. Indeed, it will be presented in the literature review in this thesis that such modes of instruction are already highly successfully for 21st century learners and formal music education may be already looking at the abyss of irrelevance if it does not adapt.

The study undertaken in this research project represents a relatively small-scale exploration of the online community of practice model. The senior music class at my school, (initially consisting of thirteen students across years eleven to thirteen, though by then end of year the number had dwindled to eight), all joined a Google Plus community that I had setup as their classroom teacher. Initially several other 'local' schools (all being over 50km away but being the closest geographically) were invited to participate. Only one of these schools enrolled their students and they remained non-active participants (they did not post or comment, but assumedly view posts) in the community throughout the research period. Throughout the year, my students were given tasks that were designed to build their capacity to use the Google Plus community as a collaborative tool.

Whilst the primary aim of this study is to cast a critical eye on my own practice in an effort to address the challenges that I have observed my students face, the study may also offer interest to other secondary music teachers in New Zealand. This may be particularly true for music educators who are struggling to embrace ICT or find ways of effectively integrating its use into the classroom. Teachers who do not have consistent access to ICT, which has been the case for myself with my senior students, may also find the potential for learners to access online communities of

practice in their own time from outside of the classroom—a distinct advantage of the model. Other music teachers working in remotely located high schools, or indeed any whose learners face similar challenges to mine, may also see promise in using the online community of practice model with their own class, and possibly as part of a wider community spaced throughout New Zealand.

A Cultural Framework

Within my senior music class, I have a high percentage of students who identify as Māori. Considering how this research study might be culturally responsive has been a foremost concern. Maui Weepu, who is endorsed by his and other iwi as a Kaitohu Tikanga for my area, provided insight into making this research a truly culturally responsive work. Maui offers that western knowledge systems reject indigenous knowledge systems and indigenous knowledge systems reject western knowledge systems (M. Weepu, personal communication, October 2018). Thus, the question becomes how this impasse can be navigated, and where might this research 'sit' if it is to be culturally responsive. Maui provided extensive guidance around this topic, offering a framework that offers a way forward. He notes that both western knowledge and indigenous knowledge systems have a commonality at the high strategy level: indigenous knowledge systems look back through cultural history for success patterns whilst western knowledge systems also look for historical success patterns for future planning (M. Weepu, personal communication, October 2018). It is here, in what Maui describes as a 'third space', there exists an interface between the two knowledge systems. In this third space there is the opportunity to align successful strategic patterns through collaboration, which has the power to see a move from a mono-cultural to a true bi-cultural approach (M. Weepu, personal communication, October 2018). Thus, the outcomes of the recommendations of this study seek to interface with this third space by providing findings from this study to both local iwi and the Board of Trustees of the school, with the hope that collaboratively they may make use of those findings in strategic planning.

Thesis Outline

Chapter One – Introduction

Within the introduction, the background and context of the study are outlined, the rationale for the research explained and the research aim and questions set out. The conclusion of this chapter is an outline of the entire thesis.

Chapter Two – Literature Review

The literature review in Chapter Two presents a summary of the literature pertaining to the research questions. Topics discussed include research into peer to peer learning and collaboration in music (both in offline and online contexts), uses of community of practices in music education (both formal and informal) and the suitability of social media as a tool for building online communities of practice. In this chapter it is presented that there is a significant gap in the literature when addressing secondary school music, and in particularly that of the secondary school music classroom in New Zealand.

Chapter Three – Methodology

Within Chapter Three there is an exploration of my ontological and epistemological positions and how they have led to a methodological approach of practitioner research that is informed by aspects of Kaupapa Māori research. This is followed by a discussion of the methods used to collect data, how data analysis was undertaken and what measures were used to ensure validity and reliability. Finally, a discussion of the ethical issues faced in this study have been presented.

Chapter Four – Findings

Chapter Four outlines the key findings of the study. These findings are grouped in the main themes identified during analysis of observations, questionnaires and focus group discussion.

Chapter Five – Discussion, Conclusions and Recommendations

Presented in Chapter Five is a discussion of the findings with reference to relevant literature. From this discussion a set of recommendations as to how the lessons

learnt from this research may be used within my own practice going forward are given. This is followed by a discussion of the limitations of this study and the potential for further study within this topic area.

CHAPTER TWO: LITERATURE REVIEW

The question of "how might an online community of practice, built using social media, be used to facilitate peer to peer learning and collaboration in the music classroom" will be examined through a study of academic literature. Specifically, the music classroom that will be considered is that of the senior music classroom in a small town in New Zealand, where the students are typically from a range of musical backgrounds. This may include traditional Western classical backgrounds, to popular music, through to traditional Māori music. Whilst the focus is that of the New Zealand secondary music classroom, this study presents that there is significant gap in the literature addressing this specific context. Rather, the bulk of the research is either centred around tertiary education, or, informal education contexts. It will be argued, however, that the lessons learnt from this research may be directly applicable to the secondary context as well.

In order to aid the structure of this review, themes have been identified in the literature. First, definitions of key terms shall be offered from relevant literature. Second will be an examination of literature around peer to peer learning in a music context. This will be followed by a scrutiny of literature specific to online communities of practice in a music context. Thirdly, consideration of social media both in a wider education context, and in a specifically music context will be presented. Finally, a discussion around the challenges in employing the community of practice model in a formal music educational context will be examined.

Definitions

Communities of practice

Wenger, McDermott, and Snyder (2002) note that communities of practice are not a new idea, rather they were our first knowledge-based social structures—they exist everywhere and we are all part of several of them. A community of practice (CoP) may be defined as a group of people who share a common interest, set of problems or expertise in an area, and who interact with each other on an ongoing basis (Wenger, McDermott, and Snyder, 2002). As a CoP, its members build a body of knowledge through collaborating and learning together (Wenger, McDermott, and

Snyder, 2002). Wenger (1998) poses that a community of practice consists of the following traits: mutual engagement, joint enterprise and shared repertoire. These categories were later refined to the following: the domain, the community, and the practice (Wenger, McDermott, and Snyder, 2002). It is this model that has been employed as a research framework by several of the authors discussed in this literature review.

Social media

Social media has become a large part of everyday life for a significant number of people (Boyd and Ellison, 2007; Boyd, 2015). Boyd (2015) notes the term 'social media' has its origins as an imprecise buzzword used by technologists in the Bay Area after the dot-com crash and the end of the Web 1.0 era. Boyd and Ellison (2007), however, have offered a working definition of social media, which shall be adopted in this literature review:

> "We define social network sites as web-based services that allow individuals to (1) construct a public or semi-public profile within a bounded system, (2) articulate a list of other users with whom they share a connection, and (3) view and traverse their list of connections and those made by others within the system." (p.211)

When considering how social media may be employed in education, The Ministry of Education's (2014) statement of intent for 2014-2018 offers that "making online learning environments and digital technologies integral to high-quality teaching and learning" (p.22) is a key goal for the New Zealand education system. Moreover, the Ministry of Education's (2015) working paper on education in 2025 offers the vision that along with education being technology rich, learning will be able to happen at anytime and anywhere. It shall be presented in this literature review that social media maybe one tool that may be used to achieve this vision.

Peer to peer learning and collaboration

Whilst peer learning has been observed to be a powerful tool in the tertiary education sector (Adam, Skalicky, & Brown, 2011), it has also been shown to work in a secondary context for Māori and Pasifika students (Van Der Meer & Scott, 2013). Boud and Cohen (2013) note that the term peer learning itself remains abstract and

can encompass many different approaches, ranging from a traditional teacher-student model (where the teacher role is taken by a student) to more collaborative models. This is supported by several other authors who offer wide ranging definitions. Reid, Chau and Thalluri (2016) for example state that: *"*numerous types of peer coaching have been identified: one-to-one or group, coaches of the same level or higher, and general or targeted*"* (p.101) whilst Olofsson, Lindberg and Hauge (2011) propose that:

> "The frameworks for the students' collaborative and peer-to-peer activities can range from being rather regulated and teacher-centered to scenarios in which the students could both set the agenda for the content focus and for the way their collaborative work should be carried out." (p.185)

Boud and Cohen (2013) offer that defining the word 'peer' can help to bring clarity to exactly what might be defined as peer to peer learning. Their definition offers that a peer is another person that is in the same situation as other learners and is not the teacher, nor do they have a position of power over others. Peers may have a range of expertise relevant to the subject, or relatively little, but regardless of the level of expertise, they share the status of being learners. Boud and Cohen (2013) go on to use this definition to differentiate 'peer-learning' from 'peer-teaching' or 'peer-tutoring', where the implication is that one of the peers assumes the role of power as the expert/teacher.

Furthermore, Boud and Cohen (2013) nominate that peer learning is at its most useful when knowledge, ideas, and experience are shared between participants, with these participants becoming interdependent on each other and engaging in mutual learning. This can occur when students share and explain their ideas with others and by engaging in activities where then can learn from their peers (Boud and Cohen, 2013). It is this type of peer to peer learning, one that is based on collaboration and mutual learning, that is of interest in this study.

Boud and Cohen (2013) also offer that whilst there is potential for students to greatly benefit from peer to peer learning, its implementation must be carefully planned for it to have maximum impact. Important to the success of employing peer to peer learning in a formal education setting is the building of students' capacity to be

participants in it. Boud and Cohen (2013) note that some students who are unfamiliar with the model can find engaging in formal tasks that are designed to foster peer to peer learning confusing and may miss out on learning all together. They also offer that those students who struggle to gain benefit out of formal peer to peer learning opportunities, due to a lack of capacity to participate, will miss out completely on the benefits reaped from the informal (without teacher involvement) peer to peer learning opportunities that occur.

The collaborative approach, that Boud and Cohen (2013) nominate is enabled by peer to peer learning, is also of interest in current educational research in New Zealand. The Ministry of Education's (2015) working paper on education in 2025 includes as one of its visions that learning will be highly collaborative, whilst Bolstad et al's (2012) paper on future oriented learning and teaching goes into greater depth noting that:

> "The challenge is to move past seeing learning in terms of being "student-centred" or "teacher-driven", and instead to think about how learners and teachers would work together in a "knowledge-building" learning environment." (p.54)

Peer to peer learning in a music context

The research into peer to peer learning specifically in a music context is a growing area. Within a secondary education context, the literature offers little, however, there is an expanding body of work addressing tertiary education. Both Hanken (2016) and Lebler (2007, 2008) note that in classical music education, the traditional master and apprentice model is still largely prevalent. Hanken (2016) goes on to argue that this is the reason that, whilst there is a large body of research into peer to peer learning in higher education, there is little in the context of music higher education, with very few articles appearing on the subject in the years 2003-2013.

Whilst the master and apprentice approach is often prevalent in classical music education, Lebler (2007) notes that the peer to peer learning model has long been present in popular music—most popular music musicians have learnt their craft through peer learning and as a self-directed activity rather than under the formal

instruction of a mentor/teacher. Lebler's (2007) research examines the implementation of peer to peer learning as a pedagogical approach at Griffith University's (Queensland) popular music stream. His findings note that it is often the case that students, within a popular context, value their peers' feedback more than their instructors. Valle, Andrade, Palma & Hefferen's (2016) research, albeit in primary school context, explores the use of peer feedback and peer assessment and offers a similar conclusion—students often value peer feedback over feedback from teachers. They conclude that feedback is crucial to students' growth as musicians, and that the teacher is not the only source of this feedback in the music classroom.

Reid and Duke (2015), who whilst affirming peer to peer learning as being common and effective in popular music, also suggest through their research that it is highly effective in classical tuition as well. They note that peer interactions may take place in many places, both formal and informal, with the informal having the potential to be just as important in shaping students' musical identity (Reid & Duke, 2015). Their study of tertiary classical musical students reaffirms that the master and apprentice approach is still prevalent at many classical music institutions. For that reason, their study focuses on informal peer to peer learning, as opportunities for more formal opportunities (as part of the curriculum), are absent. Reid and Duke (2015) go on to conclude that the informal opportunities for peer to peer learning to occur can be many and varied, ranging from short conversations at the coffee shop to interactions occurring in practice rooms and rehearsals. It is through these interactions with peers that leaners can become "expert students" (Reid & Duke, 2015). Reid and Duke (2015) also offer that whilst the formal aspect of musical education experienced by those who were studied generally emphasised the learning content, the peer to peer learning allowed students to have a greater understanding of 'how' they learn.

Whilst the research shows the value of peer to peer learning, it is also worth noting that the role of the teacher is not necessarily negated. Rather, Lebler (2007, 2008) concludes that peer to peer learning leads to a shift in the instructor-student dynamic. When student-led learning becomes more prevalent, the instructor's role moves to building the peer to peer learning capacity of the students. Valle et al (2016) also note that the teacher's role shifts from one of instruction to one of

building student capacity to be critical thinkers, able to critique their own and others work along with the ability to make improvements based on peer feedback. Hanken (2016), whilst also observing that evidence is now starting to come to light that peer to peer learning is invaluable in specialist higher music education, does offer the following caution: “at the same time, introducing peer learning in specialist higher education is not a quick fix; it involves a change of both structures and mindsets.” (Hanken, 2016. p.373). One can conclude that these structures and mindsets, among other things, includes the role of the teacher in fostering opportunities for peer to peer learning to occur. Partti and Sidsel (2010) also discuss the issue of getting the role of teachers in peer to peer learning correct, noting that the question of balance between teacher-led and peer-led learning is a complex one with ethical and social issues:

> “However, the adaptation of new practices calls for a deep awareness of the ethical and social responsibilities of teachers. For instance, the recognition of how teachers are not always the only experts in the classroom, and the important contribution of autonomous learning practices and peer-directed learning to formal music education are current insights that must be weighed against the disadvantages of the teacher ‘standing back’’ (p.379)

The motivation to use digital technology in pedagogical design

As evidenced above, there is a growing body of research supporting the positive outcomes of peer to peer learning (in a music context). The question may then be posed: why consider looking to an online approach when an offline one is shown to have promise? Lebler (2008) notes that:

> “Recent studies of the new generation of learners (variously termed the net generation, generation y, the gamer generation or the yuk/wow generation) are indicating that massive pedagogical shifts will be needed to accommodate the learning preferences and cultural dispositions of these students.*”* (p.207)

These pedagogical shifts, as identified by the Ministry of Education (2014) statement of intent, must include moving towards digital technology. Thus, a consideration of how we may incorporate the successes observed in ‘offline’ peer to peer learning

into a digital realm, along with the new possibilities afforded by that digital technology is of prime importance.

Biškupić, Lacković, & Jurina (2015), summarising Prensky, state that the most fundamental cause of decline in education is that current students are in an education system that wasn't designed to work for them, which reinforces the statements of Lebler (2008) above. This is also affirmed by Montgomery et al (2015) who observe that it is a significant challenge for higher education institutions to design pedagogy that provides adequate support for student engagement. Of today's students, Biškupić et al (2015) offer:

> "This new generation of students, so called Digital Natives (as "native speakers" of the digital language), receive information fast, prefer parallel process, multitask, random access, instant gratification, frequent rewards and they function best when networked. (p.3657)

As shall be presented below, it is the case that these digital natives are already often engaging in peer to peer and collaborative efforts in the online space, both in informal and formal ways. Therefore, if the students in front of us are a generation of digital natives, the importance of pedagogical design that acknowledges and plays to the strengths of digital natives is clear. Thus, we shall turn to an investigation into the literature on peer to peer music learning and collaboration in online CoP.

Peer to peer learning and collaboration in formal education online communities of practice

There is a limited amount of literature that addresses peer to peer learning, or collaboration using online CoP within a formal music education context, with only a handful of studies available. Many music teachers have been slow to adopt to technology changes and update their pedagogy (Crawford, 2017; Bauer, 2014) and this might explain that the research in this area is still an emerging field. Whilst this may be the case, the available literature does offer some insight into the possible successes of peer to peer learning via online CoP in the context of formal music education.

Salavuo (2008) has explored the use of online CoP with a tertiary music context and comments that current educational theories underline that learning and development occur through specific activities, many of which take place when participating in CoP. These activities may include uploading one's own material, commenting on others work, discussing and recommending music, and engaging in joint projects (Salavuo, 2008). Engaging in these activities can facilitate the shift to student-led learning, in a similar way as identified in the literature in peer to peer learning above but now in the online space. Salavuo (2008) observes this student agency noting that:

> "Motivation to learn in ad hoc communities is often internal and activities are defined by members. Social networks rely on distributed knowledge and distributed expertise and cognitive diversity." (p.128)

This is also reaffirmed by Ruokonen and Ruismäki (2016) in their study of collaborative efforts in group composition utilising blended learning environments where they observed the benefits of engaging in a CoP in terms of gains in student agency through student led learning.

Cremeta and Powell (2017), found similar trends when examining an online collaborative project run in a high school sound engineering class in Florida, USA, where students were tasked with collaborating with other students across the globe. They observed during the course of this project the ability of technology to shift pedagogy from a teacher-centred approach to one that is more collaborative and student-driven, which led to students who were encouraged to find their own directions through e-collaboration. Cremeta and Powell (2017) summarise this with:

> "The democratic nature of e-collaboration through deterritorialized spaces empowers students as agents of their own musical learning. This shift towards student-centered learning can foster musical agency and independent musicianship in democratic ways that might have potential for contexts within and beyond school." (p.12)

This 'democratic nature' as a catalyst for student agency is echoed in Salavuo's (2008) observations where it is noted a key facilitator of the increase in student agency is a feeling of direct ownership of the online community where the knowledge is shared. Cremata and Powell (2017) observe that when students are empowered

to be co-creators of their own network they found new learning pathways and renewed desire to communicate and collaborate outside of school walls—evidence that employing structured online collaborative activities in a formal educational setting (in this case the project students were given) can build students' capacity to continue collaboration outside of the original formal context.

Much like peer to peer learning in an 'offline' situation, if its online counterpart is to be incorporated formally into pedagogical design, the role of the teacher must also be carefully considered. Cremata and Powell (2017) note in their study that:

> "The context for learning… was influenced by the pedagogical approach of the classroom teacher who viewed himself as a facilitator of music experiences as opposed to the more traditional labels such as "director or instructor" whose titles suggest greater control over student learning and outcomes." (p.9)

Here it can be again seen that the teacher's role moves to one of facilitation in order for peer to peer learning to occur. This movement of teacher responsibility from instructor to facilitator, however, must be made at a pace that students can adapt to—or else, as Boud and Cohen (2013) caution, students may be ill-equipped to work in a peer to peer collaborative environment. It is worth noting that the teacher in Cremata and Powell's (2017) study spent seven weeks working on scaffolding students through a variety of tasks to prepare them for their online collaborative efforts on which the research was undertaken.

Peer to peer learning and collaboration in informal online communities of practice

Asides from the literature exploring collaboration through online CoP in formal music education (where formal is defined as a class being offered by a school or institution), there is also a growing amount of literature, emerging in the last decade (Waldron, 2013) exploring how music is learnt in informal educational contexts (ones not associated with schools or educational institutions) in online CoP. This expanding body of literature reflects the emerging and fast changing landscape of the methods available to learn music online (Kenny, 2013). The literature here also reveals the theme of an increase in learner agency through collaboration and peer to

peer learning. This is observed by Partti and Sidsel (2010), Kenny (2013) and Waldron (2009; 2012; 2013) in their studies of various online music communities where informal music education takes place.

Kenny (2013), when examining learning in the Online Academy of Irish Music, found that learner agency is increased through participation in shared knowledge building. A catalyst for this was observed to be the use of social media platforms and forums to adapt traditional teaching methods to those which are now online (such as the use of feedback and instructional content). Kenny (2013) also espouses some of the advantages of the online space over a traditional one, noting that:

> "With e-learning, the learning pace is dictated by the learners' own time with the function of being able to rewind, pause and replay the lessons and this is encouraged in the videos by the tutors." (p.244).

Waldron's (2009; 2012; 2013) studies into online music communities also observe that the use of videos in social media have forever changed how learners may learn music. Waldron offers that the use of posting online videos using YouTube allowed users to more easily understand the musical intent of musicians which encouraged them to engage in a participatory culture of discourse which lead to increased learner agency (Waldron, 2013). Whilst this new territory may have initially been viewed with scepticism by music educators, there is now a greater acceptance of the positive role YouTube can play in educating musicians (Waldron, 2013). Waldron (2013), however, also cautions that despite the many advantages of YouTube and other social media platforms, there are downsides too. These include that feedback may not be instantaneous or completely absent (it may take days for people to offer comment, if it all) and at times the advice received may be of dubious quality. This problem with quality is rooted in the democratic nature of the internet according to Waldron (2013). Whilst this democratic nature was seen as an advantage by Cremeta and Powell (2017) and Salavuo (2008) in what it has done for feelings of ownership and thus agency, Waldron (2013) summarises that it also can be problematic when any one opinion is held as being as valid as any other. Waldron (2013), however, did note that engaging in online communities did not necessarily replace offline activities. Many online participants still engaged in traditional offline

activities including playing in bands and having lessons with a teacher—this additional context provided by offline collaborators and teachers/mentors may help learners make valued judgements about the quality of advice that they receive online.

Kenny (2013), Partti and Sidsel (2010), and Waldron (2009; 2012; 2013) all agree that the lessons that can be learnt from the informal learning that occurs in these online CoP deserve investigating in formal musical education settings. Waldron (2009) offers this through a challenge to formal music educators with "clearly, something is happening in cyberspace that begs closer inspection from a music education perspective" (p.109). Partti and Sidsel (2010) and Waldron (2009; 2013) offer that teaching the skills to be part of these informal CoP should be an important part of formal music education and that educators should look to link online CoP around the globe with classroom-based ones. Partti and Sidsel (2010) also nominate that music educators should look to validate the learning that students are undertaking in online CoP outside the classroom, in the classroom. Bridging this dichotomy of the new-media based CoP that students engage in outside of the classroom with the CoP inside the classroom is considered by Partti and Sidsel (2010) a pertinent matter to address, who offer:

> "Neglecting the task of bridging this dichotomy may, at its worst, lead to a situation where the gap between music learning environments outside and inside school grows so wide, so that students will regard the values and practices of school-based music education as increasingly alien and meaningless." (p.377)

Partti (2014) reaffirms this recommendation again in her study of digital musicians and how they construct their identity, noting that they will often belong to several communities of practice and this should be acknowledged by educators rather than trying to compartmentalise them into a single, narrow CoP. Rather, they should be encouraged to cross traditional boundaries (for example those of producing, mixing, and composing).

Social media in education

There is a growing body of literature around how social media is being used in education, however, it remains an area where debate of the benefits and challenges of its use are contested (Greenhow and Cathy, 2016). Much of this research centres around Facebook as an educational tool, with the literature showing that many students engage with it for this purpose as part of their educational experience (Aaen, 2016; Deng & Tavares 2013, Deng & Tavares, 2015). Whittaker Howarth, Gordon & Lymn (2014), Wang, Woo, Quek, Yang and Liu (2012) and, Hagit, Gila and Efrat (2012) all found the Facebook could be used as alternative for a traditional learning management system at a tertiary level, with themes of increased access and collaboration identified as an advantage. Hagit et al (2012) observed specifically that students found Facebook was a more dynamic learning environment than a traditional learning management system. Meabon Bartow (2014) adds that another prime benefit is that social media has the ability to give learners access to learning anytime and anywhere. Wang et al (2012), however, found that students who engage with Facebook as a learning management system also identified areas of limitations such as non-support for various file types and not listing discussions in threads.

Contrasting the positive research around using Facebook as a learning management system, Deng and Tavares (2015), when reviewing the literature, noted that in some studies looking specifically at academic performance in relation to Facebook use, the correlation was negative—the more time students spent checking Facebook, the worse they performed. This research did not, however, differentiate between checking Facebook for social vs learning reasons. Fewkes and McCabe (2012) also found that a prime challenge with Facebook usage in a secondary education setting was that students could easily by its distracted by its social functions. Asides from this, Manca and Ranieri (2013) observed another effect, noting that students:

> “do not always feel comfortable and at ease with Facebook, and they do not appear to be willing to use informal tools such as Facebook as a unique teaching tool for learning” (p.496)

The downsides of social media in an education context may not be limited simply to possible negative effects on academic performance. Holley & Oliver in their study of student engagement with blended learning at tertiary level noted:

> "Online learning materials generally have been used to support wider participation. However, it was often the case that it was traditional 'good' students who thrive, while students from unconventional backgrounds can find these developments as barriers to course participation." (p.699)

Within a secondary context, Albert (2015) notes that teachers also have barriers that have stopped them from employing social media in the classroom:

> "Despite the potential benefits, however, music educators may be hesitant to use social media for class purposes, given concerns regarding privacy, inappropriate usage, cyberbullying, and inappropriate student-teacher communications." (p.31)

Social media as forum for online music communities of practice

Wenger, White, and Smith (2009) offer that careful consideration must be given to the 'digital habitat' for an online CoP if it is to thrive, with the choice of the platforms, tools, and configurations all being essential. With this in mind, an investigation of how social media based platforms might fit into Wenger, White, and Smith (2009) definitions offers to shed light on their potential for use in building online communities of practice.

Wenger, White, and Smith (2009) define a tool as being "piece of technology that supports a discrete activity in a community" (p.39). This, for example, might be a discussion forum or the ability to host and play video. A platform is defined as a set of tools (Wenger, White, and Smith, 2009). From this definition we can surmise that most examples of social media are 'platforms'—consider for example Facebook which includes tools such as the ability to post comments, host and play video, host images, share links etc. The configuration, as offered by Wenger, White, and Smith (2009), is the totality of all tools and platforms that constitute the community. The differentiation between a configuration and platform comes when multiple platforms are used in the CoP. For example, a website (a platform) may include a discussion

forum (a tool) where people post links to YouTube videos (another platform, in this case social media based). We will limit our discussion to social media platforms as these are of the most relevance to this study. This being the case, we will consider that a social media 'platform' will also constitute the entire 'configuration' when using the Wenger, White, and Smith, (2009) definition as a social media platform will be the totality of all the tools used. With this in mind, an examination of literature discussing the use of social media to build online music education CoP can now be undertaken. This examination will reveal that there is not a large body of work when considering social media specifically in a formal music education perspective, however, the small amount available does suggest social media is a prime 'digital habitat'.

Albert (2015) concludes that "a community of practice constitutes a type of learning community to which social media is particularly conducive." (p.31). Salavuo (2008) also offers that social networking platforms have become a place where musicians can learn reciprocally. Salavuo (2008) goes on to propose why social media presents several advantages for the music student—in his study it was discovered that students generally found text-based learning management systems less than ideal for a music context. He observes: "Learning management systems seem to be better suited to the industrial-age model of instruction rather than to education dynamic lifelong learners or the information age" (p.131). Specifically, the ability to post audio and video is an essential feature for musicians lacking from traditional learning management systems. Albert (2015) also concludes that social networks such as Facebook, Edmodo, and Google Classroom can host video and audio, and thus were well suited for online CoP. Whilst this doesn't mean that every social network page is suitable for learning, it does show that students are using some of these platforms in ways that learning management systems were once intended to be used (Salavuo 2008).

Building a formal online community of practice: the challenges

The literature presented thus far makes a solid case for the exploration of using social media as a vehicle to create an online community of practice within the context of a formal music education. The literature, however, also reveals that this is a relatively new approach in a formal education setting—one that looks to recreate

the successes observed in more informal settings. This poses the question of how might the informal be transferred to the formal and what lessons can be learnt from successful informal online CoP.

Cultivating a successful CoP is never a smooth undertaking (Wenger, McDermott and Snyder, 2002) with Wenger, White, and Smith (2009) observing that learning in an online CoP is actually a complex achievement and many barriers must be overcome. One such barrier is finding a balance between participation and reification—in order for a community to engage in meaningful learning, it must create artefacts that represent the shared experience of the community (Wenger, White, and Smith 2009). Wenger, White, and Smith (2009) also address how issues of identity are important to learning in an online CoP. Whilst the community may learn together, individuals will experience this learning in different ways which may often lead to disagreements between members when they find that not everyone sees the world the same way. Wenger, White, and Smith (2009) offer that this can be both a challenge and a resource for community: the potential to learn from such disagreements is high, however, for this to happen a "subtle, paradoxical dance" (p.58) must be undertaken if learning is to continue. One can see that developing students' skills to be participants in this 'paradoxical dance' would be a key component of scaffolding their successful participation in an online CoP.

Malinen (2015) presents another issue that must be overcome in growing a successful online CoP. When examining online communities in general, it was found that encouraging a level of participation that will produce a thriving community with varied content is a challenge many communities face—without sufficient participation and engagement in the community, the community fails. Deng and Tavares (2013), when exploring the use of various online communities in a tertiary education context, discerned that pedagogical design plays a key part in the students' motivation and engagement in online discussions. Here, it can be seen that careful pedagogical design is important in order that the amount of participation and engagement from students is of a level that community can sustain itself.

Building a formal online community of practice: student engagement

The above research suggests that students may experience a growth in agency when they participate in collaboration in an online CoP, and this growth in agency may be a key motivator for further participation. However, it is not unreasonable to expect that students' ability to see the learning potential in engaging in an online CoP will need to be grown through positive experiences with that online CoP in the first instance. As Malinen (2015) has noted, thriving online communities require a high level of participation, and achieving this level participation is not easy. Deng and Tavares (2013) offer that the correct pedagogical design offers a path forward, but this must be informed by an understanding of students' motivations to engage with online discussion.

Engagement in education, in any form (including learning through participation in an online CoP), is a complex issue that cannot be boiled down to a simple one size fits all solution as students have many individual personal traits that effect engagement (Meyer, 2014). Thus, it is not surprising that Malinen (2015) hypotheses that the motivation of users to participate in online communities is diverse and varied. Some seek personal gain and self-promotion, some simply enjoy participation as a 'fun' activity whilst others, often driven by ideology, share in order to help the community as a whole. Cremeta and Powell (2017), summarising Partii, also note, along the same line, that:

> "the more generously an individual contributes [his] expertise to improve the practice of a community, the more [he] may benefit from participating in the practice of that community…. At the junction of generosity and self-interest" (p.7)

Deng et al (2012) also address personal motivations, where they found that students' motivation to be part of online communities is largely affected by their own knowledge of the content being discussed—with great familiarity came greater willingness to participate. This, of course, is entirely logical. It does offer a challenge, however, as the creation of new knowledge obviously requires participants to push (albeit together) beyond the boundaries of their current areas of expertise. Here we can see that building student's self-belief such that they are not afraid to move

outside of their comfort zones when pursuing new ideas along with the willingness to make and learn from mistakes are essential. These traits are, of course, not unique to success in the CoP model but are essential ingredients in all areas of education, particularly if students are to become the 'life-long learners' envisioned in the Ministry of Education's (2015) vision for education in 2025.

Asides from personal motivations nominated above, research also suggests that interpersonal relations are also a key motivator in contribution to online communities. Deng et al (2012) observed this in their study, noting that personal relationships between students were a prime motivator in contribution whilst Ma and Yuen (2011) concluded that the forming and maintenance of social bonds between students is an important component in building online knowledge sharing behaviour. Downing, Spears and Holtz (2014) also found the importance of social bonds, observing that student engagement is tied to student interactions with the instructor and each other, as well as the technology. That being noted, Salavuo (2008) concluded that whilst the social connections that are made are important, musical reasons for participation in the online CoP studied in his research superseded the social ones.

These findings suggest that an important part of pedagogical design when implementing an online CoP is spending time building students capacity to build interpersonal relationships with members of that community. Wenger, McDermott and Snyder (2002) support this idea, describing the early stage of a CoP as 'coalescing' and it is at this stage they have observed there is a need to foster the relationships in the community. This stage occurs before the community can grow and sustain itself—if trust is not built within the community first, the members are unlikely to learn together.

Summary

The literature review presented here gives several insights into the question of "how might an online community of practice, built using social media, be used to facilitate peer to peer learning and collaboration in the music classroom"? It is clear that when considering the context of peer to peer learning and collaboration in music, and how online technology might facilitate this, that this is an emerging research area and that there is still potential for considerable work to be done. The available research, whilst

for the large part focused on tertiary education (and none specific to the New Zealand context) does offer several key themes. Firstly, students, both in formal and informal contexts, experience an increase in learner agency when they engage in shared knowledge building through peer to peer learning and collaboration in online CoP.

The theoretical framework provided by Wenger, White, and Smith (2009) in defining and assessing the suitability of 'digital habitats' offers educators the tools to critique different social media platforms when planning to implement them in their own courses. The question of how social media might specifically enhance the functionality of online music CoP is also an emerging area of research, though the conclusions of Albert (2015) and Salavuo (2008) indicate that it might be a well-suited match. However, when examining the use of social media in education in general, there are conflicting findings as to how beneficial its use is both in a tertiary and secondary setting. The majority of this research has centred around Facebook and hasn't examined other social media platforms, which is evidence of a gap in the literature, as none of the researchers have argued their conclusions around Facebook could equally be applied to other social media platforms.

Creating an online CoP that is a thriving, bustling community where authentic learning readily takes place amongst an active group of participants is no easy task (Wenger, McDermott and Snyder 2002). The literature critiqued in this review offers some insight into what the catalysts to creating a successful online CoP, with the work of Wenger, McDermott and Snyder (2002), and Wenger, White and Smith (2009) providing insights into the stages and challenges in growing successful online CoP. Understanding the motivations of the participants to participate in online CoP offers insight to educators wishing to foster engagement of students in these online CoP, particularly around the importance of spending time building interpersonal relationships when the community is first coming together and scaffolding and facilitating students' ability to contribute to the community in meaningful ways.

These challenges notwithstanding, Kenny (2013), Partti and Sidsel (2010), and Waldron (2009; 2012; 2013) all implore formal musical educators to learn from the successes of the informal learning occurring in online music communities of practice.

Waldron (2013), discussing formal music educators and what they might learn from such online communities of practice declares “As a profession, we have a lot of catching up to do. But we also have shining examples available to emulate that are literally at our fingertips” (p.101)—a suitable call to arms for music educators and a succinct justification for this study.

CHAPTER THREE: METHODOLOGY

Introduction

The aim of this research project is to investigate how an online community of practice might be used to build collaboration and peer to peer learning as part of a formal music education context in remotely located secondary schools. As previously outlined, this research aim will be addressed by asking the following research questions:

1. How might participating in an online community of practice encourage collaboration and peer to peer learning for secondary school music students in remotely located secondary schools?
2. What are students' perceptions of the implications on their learning in using a community of practice model?
3. How might I build my students' capacity to participate in online communities of practice as part of their music education experience?

This chapter will outline the methodology and methods employed to explore these research questions. Firstly, a discussion of my epistemological and ontological views shall be presented in order to inform the reasoning for the methodological choices taken. These methodologies will then be discussed from a theoretical stand point with a view as how they apply to this study. Subsequently, a discussion of the methods of data collection chosen will be presented along with details of the types data analysis undertaken and how validity and reality have been considered. Finally, a consideration of the ethical issues faced within this study will be detailed.

Epistemology and ontology

Before moving into a detailed discussion of methodology, it is important to outline my own ontological and epistemological stances. The pertinence of this is noted by several authors, with Cohen, Manion, Morrison, Bell (2011) offering that ontological assumptions, which shape one's epistemological assumptions, in turn inform research design, methodology, and data collection methods. Bryman (2011) offers a similar conclusion, noting that one's social ontological viewpoint cannot be divorced from how social research is undertaken—it will shape research questions and the

methods employed. Bracken (2010) also suggests the importance of ontological considerations, noting that one has to examine and understand one's own ontological beliefs in order to understand the philosophical underpinnings on which their research process and findings are based. Davidson and Tolich (2003) summarises the importance of the discussion neatly with:

> Questions of ontology and epistemology cannot be answered 'scientifically' or with 'evidence' as they deal with the question of what constitutes 'scientific' and 'evidence'. Therefore, they must be addressed first before designing research methods. (p.25)

Creswell (2014) suggests that ontology and epistemology can be equated with one's 'worldview', and when I consider my own worldview, I can see that it is of course shaped by a myriad of influences including cultural and personal life experiences. Rather than an in-depth examination of the resulting perception of reality that I have formed through these influences, I shall instead seek to align my own worldview with established ontological positions that are relevant to social research. Both Bryman (2011) and Cohen et al (2011) offer two contrasting ontological positions, that of objectivism versus constructionism (or constructivism). The objectivist view is that social reality is independent and separate from individuals, opposing itself on them, whereas the constructionist view is that the social reality and meaning is constructed by the individuals themselves (Bryman 2011; Cohen et al, 2011). When considering my own worldview, it is clear that my ontology is aligned with the constructionist view. Bryman (2011) talks of social actors and within the constructionist view, these actors both create meaning and through the process of social interaction produce social states that are in constant change. This view of reality closely aligns with what I observe as reality in my school—in my view relationships (be they between teacher and student, or between teacher and colleagues) are at the core of what we do as teachers. These relationships are built through social interactions and are afforded by the ability of the 'social actors' to create their own meanings.

Having defined a frame of reference for my ontological position, we can now turn to examining my epistemological position. Bryman (2011) notes that there is a fundamental difference between studying the social world when compared with studies undertaken in the natural sciences. This difference lies in the fact that social

reality has meaning for human beings and these meanings directly influence the way people act. Therefore, the job of the social science researcher is to understand individuals' points of view, so they can understand their actions. Cohen et al (2011) when discussing this fundamental difference that Bryman (2011) describes, notes that one can ultimately take an objectivist approach (favoured by the natural sciences) or a subjective approach. This 'fundamental' difference gave rise to an alternate epistemology (one based in subjectivism) to the objective or positivist approach that was favoured by those in the natural sciences. The positivist approach has now largely been replaced in the natural sciences by post-positivism (Creswell, 2014). Whilst still adhering to a 'traditional' research approach which favours quantitative methods and a search for a cause-effect relationship, post-positivism rejects the idea of an 'absolute truth' as knowledge is conjectural, and positive claims of knowledge cannot be made when studying humans and human behaviour (Creswell, 2014). Cohen et al (2011) suggests that many social researchers fit under either the post-positivist or anti-positivist epistemological stance, whereas Bryman (2011) suggests something a little different—that most natural scientists now employ the epistemological position of realism (which is itself post-positivist) whilst social scientists often work within the epistemological stance of interpretivism. Regardless of the terminology used, the conclusion offered is that most social scientists believe that knowledge of humans and social reality is constructed by individuals and best understood by the researcher attempting to understand the frames of reference of that individual. It is this epistemological position that I find myself taking as a logical extension of the ontological position I have outlined.

Methodologies

As a result of the interpretivist epistemological stance this study has been undertaken using a methodology that has been guided by practitioner research and informed by aspects of Kaupapa Māori research.

Practitioner Research

Teachers are most likely to be motivated to enter practitioner research by challenges in their own practice (Anderson, Kerr & Nihlen 2007) with their research questions coming from day-to-day experiences (Campbell, 2013). This has been the case for

myself—the impetus to undertake this study has been the desire to improve my own practice and the outcomes for my ākonga. Oolbekkink-Marchand et al (2014) define practitioner research as a “broad-based movement among school professionals to legitimate knowledge produced out of their own lived realities as professionals” (p.123). This ‘broad-based’ movement encompasses a variety of wide-ranging approaches, from the more informal to the highly formalised (Anderson & Nihlen, 2007). Campbell (2013) notes that teachers are in a unique position to provide an insider's view of teaching and learning, and whilst many aspects of practitioner research is just ‘good teaching’ (reflective practice), the practitioner researcher goes further with systematic data collection and analysis and, disseminates their conclusions and findings. This use of systematic data collection and analysis along with its dissemination form a key part of the methodology of this study. Indeed, the area of research in this study is an emerging one. Thus, as a practitioner researcher, I have ability to address the quality of teaching and learning of music education via the exploration of a relatively new pedagogical approach, one which I hope through dissemination might provide a model for others to trial in their own settings.

I conducted this study as a researcher whilst also working as a practitioner—working part time teaching my senior music class. Aside from the desire to improve my practice, as outlined above, I also feel an imperative to espouse the importance of empowering teachers to be practitioner researchers. International research suggests that the quality of teaching within schools is the most important influence on student attainment, and thus getting teachers to engage both ‘in’ and ‘with’ research is a pertinent concern (Menter, Elliot, Hulme, Lewin & Lowden, 2016). Menter et al (2016) also notes that teachers engaged in research are able to make informed personal decisions rather than relying on habitual responses and are empowered to become agents of change rather than the recipients of it. From a wider research context, practitioner research also has the potential to contribute to both a wider understanding and, rethinking of, appropriate methodologies in educational research (Anderson & Nihlen, 2007).

The practitioner researcher may use any methodology, however qualitative inquiry types typically dominate the work, with the studies often having their roots in ethnography (Campbell, 2013). This has meant that practitioner research is a strong

candidate for critique by positivists. Positivism has a simplistic view of human behaviour, with an aversion to the investigation of personal and social histories to increase understanding of an educational setting, as examination of these can lead to ambiguity that makes cause and effect unable to be established (Kincheloe, 2012). Counter to the positivist argument, Burton and Bartlett (2005) note that teachers are in fact part of a classroom situation that involves complex social interactions, all of which contribute to learning and development, and thus must be part of any explanation. This counter view of human behaviour is pivotal to my topic, as building communities of practice relies heavily on an understanding of social interactions. Kincheloe (2012) remarks that teachers are in a position to challenge the culture of positivism and this is the case with this research study.

Practitioner research, aside from being critiqued by positivists, also remains an area of some controversy in the academic world at large, with Newton & Burgess (2008) offering “we have yet to arrive at a satisfactory conclusion with respect to the efficacy and credibility of educational action research as a research approach” (p.19). Academics might be comfortable with practitioner research creating knowledge that leads to localised change in a practice setting but are less inclined to be comfortable with findings being presented as public knowledge with epistemic claims beyond the research setting (Anderson & Herr, 1999). The lack of confidence is reflected in the fact that is often criticised as not being ‘real’ research and lacking the methodological rigour needed to qualify as such (Campbell, 2013) and thus it is often not incorporated into the body of knowledge about teaching (Newton & Burgess, 2008). These criticisms are not without merit—Oolbekkink-Marchand et al (2014) used Anderson and Herr’s research quality and validity criteria to study 11 pieces of published practitioner research in the secondary education context and found that many did not meet the process validity criteria. The methodological design of this study has incorporated due diligence to best address these issues so that the research can stand up to scrutiny. Burton & Bartlett (2005) pose that in order for it to be ‘real’ research it must incorporate reliability and validity and Feldman (2007) affirms this with “it is when we, as action researchers, pay attention to validity that our action research can become good” (p.31). Campbell (2013) also adds the need to pay careful attention to data collection methodology and analysis. The importance

of these facets and how they are handled in this study are addressed later in this chapter.

Kaupapa Māori research

As outlined earlier, a significant number (close to 60%) of the participants in this study identify as Māori. It was therefore important that the methodology of this study be informed by Kaupapa Māori methodology. This is especially true when considering that I am Pākehā and that over the course of the 19th, 20th and 21st centuries (since colonisation) Māori knowledge has been marginalised in preference for Pākehā knowledge, with the introduction of colonial institutions, including the education system, being a prime catalyst (Pihama, Smith, Taki, & Lee, 2004). An outcome of this perceived superiority of Pākehā knowledge has seen research 'on' Māori by Pākehā researchers, further perpetuating the power imbalance. Kaupapa Māori research methodology seeks to address this power imbalance and has its roots in two intellectual ideas. Firstly, that there is validity and legitimacy in Māori language, knowledge and culture (Hoskins & Jones, 2012; Smith, 2015). Secondly, it is rooted in critical social theory (Hoskins & Jones, 2012). Graham Smith in his interview with Hoskins and Jones (2012) notes that both of these elements are crucial for Kaupapa Māori retaining its radical potential. Also addressing the power imbalance is the concept that "Kaupapa Māori research is research by Māori, for Māori and with Māori" (Smith 2015, p.48)

Kaupapa Māori research methodology, however, is not without its critics. Jones & Jenkins (2008) argue that a dialectic of indigene-coloniser exists and must be acknowledged when undertaking research, noting, however, that some researchers wish to ignore or erase the hyphen in pursuit of unifying human experience. This, concludes Jones & Jenkins (2008), is to recolonise and simply does not work—for indigenous people the 'hyphen' is non-negotiable. One may argue that Elizabeth Rata's paper *A Sociology "of" or a Sociology "for" Education? The New Zealand Experience of the Dilemma* (2010) is an example of 'ignoring the hyphen'. Rata (2010) claims that Kaupapa Māori research, due to being highly politicised, has become difficult to criticise and therefore has been removed "from the scientific requirement that all research is subject to scrutiny" (Rata, 2010, p.116). Whilst claiming that Kaupapa Māori research is highly politicised, the position taken by Rata

would hardly seem without its own political bias, given her established anti-bicultural position. Marie and Haig (2006) offer another critique, focusing on the methodology behind Kaupapa Māori research. This critique largely mirrors the positivist critique of qualitative methods, although Marie and Haig reject the positivist label, arguing the philosophy that best fits current scientific research is that of scientific realism, which they argue is the most suitable for the understanding of both natural and social sciences.

Given that “Kaupapa Māori research is research by Māori, for Māori and with Māori” (Smith 2015, p.48), the question posed is what relationship can myself, a Pākehā have with Kaupapa Māori research and how might it inform the methodology of this study? Graham Smith in his interview with Hoskins & Jones (2012) observes that Pākehā involvement in Kaupapa Māori research comes with clear risks, and that there is distrust of this involvement due to ongoing colonisation. Jones (2012) also expands on this noting that the argument for Pākehā not being involved in Kaupapa Māori research is often based on control and power and a previous history of research ‘on’ Māori. Jones (2012), however, offers that perhaps the “by Māori, for Māori and with Māori” is used to empower Māori researchers, without necessarily excluding Pākehā from being involved with Kaupapa Māori research.

Jones (2012) offers that one path forward for a Pākehā or non Māori to have success in incorporating Kaupapa Māori—to not be self-effacing or guilty about past wrongs, but to become open to Māori knowledge and familiar with te reo Māori. Barnes (2013) notes that as educational research has expanded, more Pākehā are engaging in Kaupapa Māori research and through this process we are learning how Pākehā can work better on pressing issues around Māori educational wellbeing.

Within my own research, the guidance of kaumatua Christine Weepu and Maui Weepu (in his role as Kaitohu Tikanga) has significantly shaped the framework of my research methodology. Their advice around the format of the focus group (detailed below) is one such example of how their input has helped shape the research methods employed such that are they culturally responsive. As discussed in the Introduction chapter, Maui has also provided extensive guidance around how the outcomes of the research might be disseminated in a way that will encourage the

integration of both Western and Indigenous knowledge systems in future planning at a high strategic level.

Methods

In order to find appropriate methods of data collection, we can turn to the methods employed by other music education researchers when investigating online CoP. Waldron (2009; 2012; 2013) has consistently used a cyber ethnographic methodology and has employed the methods of interviews, questionnaires and observations of online interactions (for example forum posts, and comments on YouTube videos) when examining online CoP. Cremata and Powell (2017), Kenny (2013), Ruokonen, & Ruismäki (2016) have also relied on observational methods and interviews to build understandings of online music CoP. In my own study, I have chosen to use observation, questionnaires and focus groups. The decision to choose focus groups over interviews was made for several reasons, which are detailed below.

Observations

Teachers are trained to be skilled observers, and observation is part of regular classroom practice. Burton and Bartlett (2005), however, caution that teachers may be used to seeing certain things and missing others as part of their normal classroom observations. Defining exactly what constitutes evidence in observation can pose a problem, as it will depend on where and how you look (Cohen et al, 2011). Thus, the practitioner researcher must carefully consider the possible observation techniques they may employ if they are to gain a complete and accurate picture. Indeed, Menter et al (2016) notes that gaining an accurate picture from observation may not be possible and that they are often best used with other methods to triangulate data.

Observation based methods can yield quantitative or qualitative data (Menter et al 2016; Mutch, 2005; Burton and Bartlett, 2005). Cohen et al (2011) expands on this noting that depending on what is being looked for, and whether a structured or unstructured approach is taken, there can be a continuum in data from indisputable

facts (for example, the lessons started at 10.02) to highly subjective data which relies on the researcher's interpretation of situations and events.

Given this study is qualitative in nature, I have employed qualitative observation methods as opposed to the highly structured quantitative approach to gather data. This qualitative type of observation can be conducted by a participant or non-participant researcher (Burton and Bartlett, 2005; Menter et al, 2016; Mutch, 2005). As a teacher studying my own practice, in many ways I straddle the boundary between participant and non-participant observer. Considering the classroom as a social environment, it is clear that I am a participant as my actions and interactions with students directly affect that environment. However, it may also be argued that I'm a non-participant observer in that I'm not part of the student group and therefore I cannot 'live' the students' experience as a student. Whilst this line of discussion may seem to be a redundant one based on semantics, it is pertinent when considering the strengths and weakness of participant vs non-participant observation.

Menter et al (2016) and Mutch (2005) offer that when observation is conducted by a participant researcher, the method has its roots in ethnography and involves the researcher going into the field and making detailed notes around what they see. Cohen et al (2011) offer in an education setting this can take the form of keeping detailed field notes, with Menter et al (2016) expanding that it requires detailed accounts of what is happening including what is being said, by whom, what activities are taking place, and what behaviours are being demonstrated. Within this study, detailed field notes were taken across a period of several classroom lessons along with ongoing observation (and corresponding field notes) of the online environment in which the students were participating.

The strengths of qualitative observation-based methods are that they allow researchers to observe participants in their 'natural' environment—here the researcher can see if the participants interact as they might say they do in interviews or questionnaires (Menter et al, 2016; Mutch, 2005; Burton and Bartlett, 2005). The researcher, by participating, also gains a greater understanding of the important issues which aids in their interpretation of data (Menter et al, 2016). Observations can also create a large amount of data in a short period of time, giving the researcher a rich database to draw upon for analysis (Burton and Bartlett, 2005).

Observation based methods, however, are vulnerable to the fact that the act of observing itself may influence those that are observed, thus distorting data (Burton and Bartlett, 2005; Menter et al, 2016). The participant observer may look to overcome this by spending longer as a participant in order to negate the 'observer' effect, however, the trade-off here is if the observer spends too long in the research setting, they may be open to the criticism of not having enough distance to be objective (Burton and Bartlett, 2005). Burton and Bartlett (2005) also note that it can be difficult to be a participant observer and still find time to take accurate and detailed field notes. These issues are all potential threats to validity in my study, and it is for this reason I've chosen to use observational data in combination with other methods for triangulation purposes.

Electronic questionnaires

Questionnaires may be considered the same as a structured interview, except they are self-administered rather than being administered by the researcher (Bryman, 2011). Generally, questionnaires are used to gather quantitative data, and aim to validate this data by gathering a large enough sampling as to make the results generalisable to the entire researched group (Burton and Bartlett, 2005; Menter et al, 2016; Mutch, 2005). They may, however, also be used to gather qualitative data with Cohen et al (2011) noting that the questionnaire, when paired with open rather than closed questions, is an effective qualitative data gathering tool in site specific case studies.

As a data collection method, the questionnaire is relatively easy to administer and, assuming primarily closed questions are employed, it is economical in data collection in that it only collects data around what is of interest to the researcher (Menter et al, 2016). Closed questions questionnaires are also quick for respondents to complete and straightforward for the researcher to code for data analysis (Cohen et al, 2011). Bryman (2011) offers that questionnaires are free from interviewer effects and bias (though not from bias in the questions themselves) and are generally shorter than structured interviews which avoids interview fatigue.

Questionnaires, however, as a method is also prone to several weaknesses. This includes possible low response rates, the inability of participants to clarify the

meaning of questions, a dependence on respondent motivation, honesty and memory, errors from non-response (it may be that those who are more likely to respond to a survey might also be more likely to have a particular mindset) ,and the difficulty in creating well designed questionnaires (Burton and Bartlett, 2005; Menter et al 2016; Bryman, 2011; Cohen et al, 2011).

The questionnaire within this study was used to gather quantitative data, with the quantitative data being used to establish some rough trends that could be explored in detail in the focus group interviews through a qualitative lens. It also formed part of the three methods required to triangulate data across the study. The questionnaire employed a range of close question types: dichotomous, multiple choice, and Likert scale. The choice of what type of responses were available for each question was carefully considered. Dichotomous responses are best for issues that require a clear, unequivocal response and this response type was offered sparingly in the questionnaire, as requiring respondents to make a yes/no decision is not appropriate for many questions. For questions where it was deemed more appropriate to have a range of responses rather than a dichotomous response, either multiple choice or Likert-scales were offered. Neither of these response types are without issue, with Cohen et al (2011) noting that multiple choice questions offer little more than a crude statistic as words are inherently ambiguous. Rating scales such as the Likert-scale allow the respondent a degree of intensity or sensitivity in their response to a question around a particular topic (Cohen et al, 2011) and were used for a large portion of the questionnaire in this study. Rating scales are not without difficulties, however. Researchers need to be careful not to infer more subtlety from the data than is actually there. Cohen et al, (2011) exemplify this by offering you cannot assume how equally each respondent views the intervals in a rating scale—for example the jump from ‘neither agree nor disagree’ to ‘agree’ might be perceived as much bigger than the jump from ‘agree’ to ‘strongly agree’ by some respondents where others might perceive them as equal steps. Cohen et al, (2011) also hypothesise that most of us don’t want to be seen as ‘extremists’ and thus are more prone to avoid the two extreme poles in a rating scale.

The questionnaires themselves were administered to students electronically via Google Forms, with the student responses being anonymous. Menter et al (2016)

offer that the ability to remain anonymous through electronically delivered questionnaires may empower students to be more truthful in their responses than in a class discussion or focus group (Menter et al, 2016).

Focus groups

Once the domain of market research (Menter et al, 2016), focus groups are now widely employed in social science research (Waldegrave, 2003) and are growing popularity as a tool in educational research (Cohen et al, 2011). A ‘focus group’ is a small group who are brought together to have a ‘focused’ discussion around a specific issue (Waldegrave, 2003). Cohen et al (2011) nominate that it is a form of group interview, where the back and forth between an interviewer and participant is replaced with back and forth between a group of participants with the interviewer taking a moderating role.

Focus groups are good for asking ‘why’ questions and allow participants to express themselves in their own words providing insights into their understanding of the topic (Menter et al, 2016). Further, information can be obtained in a group setting that is difficult or impossible in other settings as people will say things that provoke responses from other people (Menter et al, 2016). Some research also suggests people feel more relaxed in groups and therefore people will be more at ease thus providing more detailed responses (Menter et al, 2016)

Despite these strengths, the focus group method does not tend to yield quantifiable or generalisable data (Menter et al, 2016; Cohen et al 2011). Menter et al (2016), however, note that their purpose is to create qualitative data and their strength is when they are employed with other methods. Another issue is that whilst the group situation may encourage participants to be forthcoming with their views, it is also possible for individuals to dominate the views of others which will skew the data (Cohen et al 2011), although a skilled moderator may mitigate this effect (Waldegrave, 2003)

The size and make-up of the group, therefore, is an essential component in getting useful data from a focus group (Menter et al, 2016; Cohen et al 2011). Menter et al (2016), Cohen et al (2011), and Waldegrave (2003) all suggest a size around six to twelve people as being ideal. Within this study I opted to recruit six students in to the

focus group. Waldegrave (2003) suggests that focus groups may work best when they are composed of strangers, however, this was not possible in this study as all participants were from the same class. Menter et al (2016) provides some guidance in the recruitment process when working with students, noting that considering age, gender and peer relationships of great importance, with ideally the participants being friends. Cohen et al (2011) offers another consideration—that the participants must have something to say. It was using these criteria, from the pool of participants who had self-nominated to potentially be part of a focus group, the focus group participants were chosen.

For this project, a third-party moderator was chosen in order to ensure student confidentiality. Menter et al (2016), Cohen et al (2011) and Waldegrave (2003) all note the importance of a skilled moderator in order for focus groups to run smoothly and produce good data. This was kept at the forefront of the researcher's mind when recruiting a moderator for the focus group. Menter et al (2016) offers additional guidance in conducting focus groups with students, stating that extra time is needed to set up ground rules and to clarify the purpose of the research. In addition to this, a kaumatua from our community advised that for our Māori students the opportunity to have an initial meeting to get to know the moderator first, or the opportunity for a mihi whakatau (or an opportunity to meet each other and establish connections), before the focus group took place was important. With this in mind, students met, at a location of their own choosing, with the moderator for a mihi whakatau before a second occasion where the focus group discussion took place.

Data analysis

The techniques required for data analysis will vary according to both the method employed and as to whether the data is qualitative or quantitative (Menter et al, 2016). In this study some initial quantitative data was gathered from an electronic questionnaire, which was in turn used to give some baseline insight for the qualitative data that followed. In small-scale research such as this study there is not usually a need to go beyond having data presented as percentages in tables or graphs, provided the limitations of the data are acknowledged (Menter et al, 2016), and this is how the electronic questionnaire data will be presented.

There is no one single or correct way to approach data analysis in qualitative studies (Cohen, 2011), although Creswell (2014) offers that the analysis process can be viewed like peeling back layers of an onion, taking the data apart layer by layer before putting it back together. The first step taken in data analysis in qualitative studies is generally that of coding the data (Bryman 2011; Creswell, 2014) and in this study data was coded as it became available (rather than waiting for all data to come in)—an approach that is common in qualitative studies, but not quantitative where all data is gathered first before analysis begins (Bryman 2011; Creswell, 2014).

When coding data, it is common for the researcher in qualitative studies to allow the coding categories to emerge (rather than working with a preset list of codes) whilst all the data is read through (Bryman 2011; Creswell 2014). The researcher may then proceed to refine these codes, removing ones that overlap and looking for connections between codes (Bryman 2011; Burton and Bartlett, 2005; Menter et al, 2016) which was the approach taken in this study.

Once the data in this study was coded, these codes where used to identify the key themes that the data was revealing. Bryman (2011) notes that 'thematic analysis' may mean many different things to researchers—to some researchers a theme may equate to a code, whereas to others a theme will transcend several codes. A central issue with qualitative studies like this one is that they produce huge amounts of data and whilst this affords the opportunity for rich description, it also poses problems in finding manageable ways to undertake effective data analysis (Bryman, 2011). For this reason, Creswell (2014) suggests that the researcher may need to identify the most pertinent themes that relate to the literature and discard others, with the aim of working with a manageable five to seven themes. In order to identify the most salient themes, Bryman (2011) offers a useful definition for a theme (as has been adopted in this study): it is a category identified by the researcher that relates to their central focus and has the potential to build on and contribute to the literature around this focus.

Once the key themes were revealed, the next step in the analysis was to interconnect them in order to create a narrative. A narrative approach is one that is often taken in qualitative studies (Menter et al, 2016), with Bryman (2011) suggesting that using a narrative approach can shift the focus from that of 'what happened?' to

‘how do people make sense of what happened?’, where stories of the participants are most important. Given one of the key research questions in this study is to understand students’ perspectives of how using an online CoP has impacted their learning, this approach was seen as a pertinent way forward.

Validity and reliability

Given the criticisms of practitioner research outlined above in the methodology section, it is pertinent to consider the issue of insuring validity within this study. Cohen et al (2011) note that validity is the key to effective research, stating that without validity the research can be of no value. Within qualitative research, there are various approaches to validity and reliability. Some seek to take the concept of validity from quantitative research and apply it directly to qualitative research, whilst others, noting the presupposition of quantitative standards is that an absolute account of social reality can be given, suggest that validity and reliability should be measured with quite different criteria. Several authors offer possible alternative criteria that might be used in qualitative research. Both Creswell (2014) and Bryman (2011) note that the terms trustworthiness and authenticity are becoming more widespread as an alternative to validity and reliability in qualitative research, whilst Cohen et al (2011) reference Maxwell’s model of ‘understanding’.

Regardless if we use the terms validity and reliability, or other alternatives, there are several recommendations from the literature that emerge as the key to ensuring these in qualitative research and these have been adopted in this research project. Firstly, the richness of the data is of paramount importance, where richness can be described as a thorough or ‘thick’ description (Cohen, 2011, Creswell, 2014). This ‘thick’ description can be facilitated by both spending prolonged time in the field to gain understanding and the use of data collection methods that seek to understand people’s stories (Creswell, 2014). Given the research has taken place in my own classroom, I have been afforded plenty of time in ‘the field’. In conjunction with this, the methods chosen afford a rich description of that environment. In order for this ‘rich’ or ‘thick’ description to be valid, however, the researcher has to acknowledge their own personal biases, which might be sorted and clarified by self-reflection (Cohen, 2011; Creswell, 2014; Bryman, 2011). Whilst I have addressed these issues above when discussing my ontological and epistemological stances, I have also

made sure that these were at the forefront of my mind when the research was carried out and when the data was analysed. As a further check and balance to ensure personal biases do not colour the data, the researcher can use respondent validation (Creswell, 2014). Within this research all focus group members were provided with transcripts to read and approve before the data was analysed as a method of respondent validation. Asides from rich and thick description, triangulation can also be used to ensure the validity of a qualitative study (Cohen, 2011; Creswell, 2014) and within this study, three methods of data gathering were chosen to allow for this to take place during data analysis.

Issues of reliability have been addressed by the careful checking of transcripts and making sure data coding is consistent throughout the data analysis, as offered by Creswell (2014).

Ethics

As a practitioner researcher undertaking research with my own students, I had free access to the research site. However, Menter et al (2016), note that this is not sufficient and that a more formalised agreement is required. Thus a formalised agreement to conduct research at my school was obtained from the principal and approved by the board of trustees.

The research participants in this study were my own students, and this presented several ethical challenges that needed addressing. All participants were required to give voluntary informed consent (or assent with parental consent for those under 16) to be a part of the research process. Informed consent itself is not an absolute term and in particular young people may not truly be in a position to understand exactly what the context and purpose of a research project is, thus making truly ‘informed’ consent difficult (Menter et al, 2016; Pritchard, 2002). Thus, it is up to the researcher to take time to explain the research in the clearest manner possible whilst also encouraging participants to think carefully as to whether they wish to be involved (Menter et al, 2016). To address this, potential participants were provided with a complete overview of my research topic, including methods of data collection and how I plan to disseminate the results and conclusions. It was also made clear to

students that whilst participants will not be identified in my thesis, the preservation of anonymity cannot be totally assured in practitioner research (Pritchard, 2002).

The teacher researcher is also in a position of power when asking for consent, thus coercion, be it direct or indirect, is of concern when seeking research participants (Herr and Anderson, 2005; Pritchard, 2002). Herr and Anderson (2005) offer having another party, removed from the teacher, to be responsible for seeking the consent of participants and this was the approach taken—an office administrator who does not teach the students made the initial approach to potential participants. This power imbalance also makes the focus group method ethically problematic. To navigate this, neutral third parties were used to conduct and transcribe the focus group rather than myself. The focus group moderator was from outside of school and had no direct connection to the students and was required to sign a confidentiality agreement. In order to protect the identity of the students, the third-party transcriber coded participant names before I receive the data in order that the participants' individual responses remain anonymous. This third-party transcriber was also required to sign a confidentiality agreement.

Menter el al (2016) also note the importance of considering researcher bias when addressing ethical issues. Whilst researchers should aim to make their work unbiased, Menter et al (2016) note that educational research cannot be 'value-free'. Thus, the values of the researcher will always affect judgements made in the course of the research. It is therefore the researcher's responsibility to bring these to the surface (Menter et al, 2016) so that the research participants and the eventual readers of the work understand where you are coming from. This has been at the forefront of my mind during the research process.

Conclusion

As outlined in this chapter, my ontological and epistemological positions of constructionism and interpretivism have led to a methodology for this study that is informed by practitioner research and Kaupapa Māori research. An examination of the methods used by other educational researchers who have examined online music CoP has led to the selection of electronic questionnaires, observation and focus groups as the data collection methods for this research project. The ethical

issues presented here (along with my proposed solutions) were detailed in an ethical approval which sought and granted from the Unitec Research Ethics Committee (UREC).

CHAPTER FOUR: FINDINGS

Introduction

This chapter presents the findings of the data generated during the research project. Several major themes from the data have been summarised and are presented below in order to shed light on the research questions that have guided this project. Student names have been encoded to pseudonyms to protect their identity.

Pedagogical change and building community participation through teacher modelling

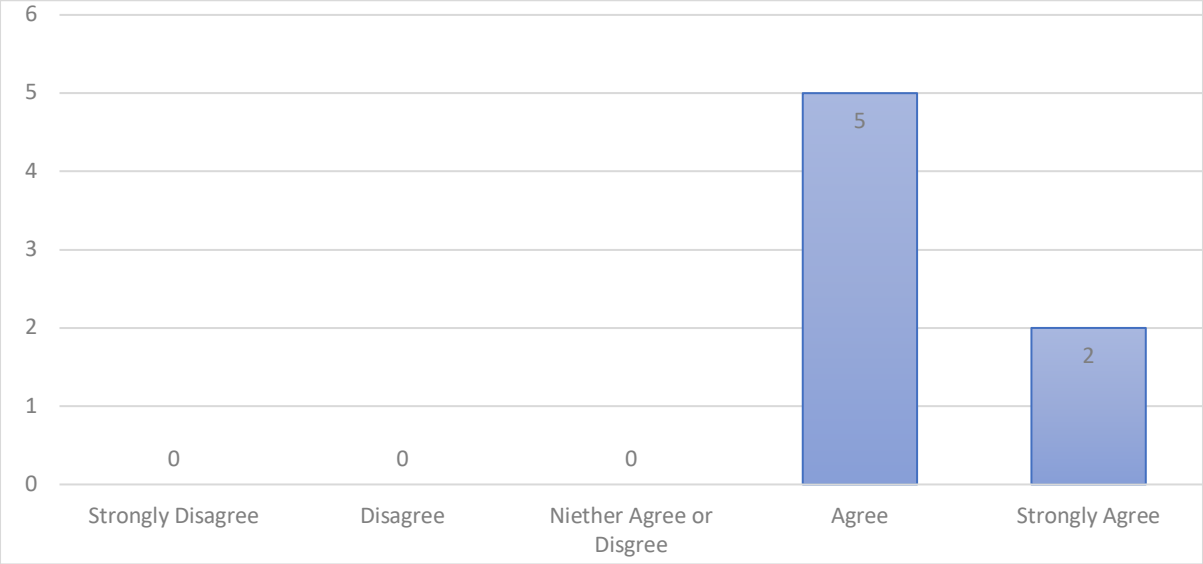
Within the literature review chapter, it was seen that in order to move away from a master and apprentice approach (in music education) to one of peer to peer learning and collaboration a shift in the role of the teacher, and the associated pedagogy, is needed (Deng and Tavares, 2013; Hanken, 2016; Valle et al, 2016). To explore this pedagogical shift, my class used the social media site Google Plus to create an online CoP.

During the course of the research project, I observed a significant pedagogical change in my classroom whilst exploring the online CoP model. I found myself spending large amounts of time in class teaching things that were extra musical (ie. not concerned specifically with 'music') rather than teaching the specific music curriculum. The time spent on the 'extra-musical', that would've normally been spent instructing the music curriculum in a master and apprentice type model, was instead dedicated to building the students capacity to take control of their own learning via participation in the online CoP. This capacity was built by discussion of, and, active modelling of, community membership. This modelling included regularly (and timely) commenting on posts from students by myself. Along with the simple act of engagement with a post, my comments also modelled the use of feedback/feedforward and used leading questions so the students could see how commenting could be used as a vehicle for constructive peer to peer learning and collaboration. Time was also spent in class discussing these models and how students might use them in their own posts and comments.

Along with commenting on student posts, I also regularly created posts that were not specific to class tasks, but rather explored aspects of my own musical interests (for example things I'd been working on in my own practice, or videos I'd found of interest etc). The idea behind this was to show students that the online CoP could be taken in directions set by them and their interests, rather than being dictated to them by me. This approach was also discussed and explained in class.

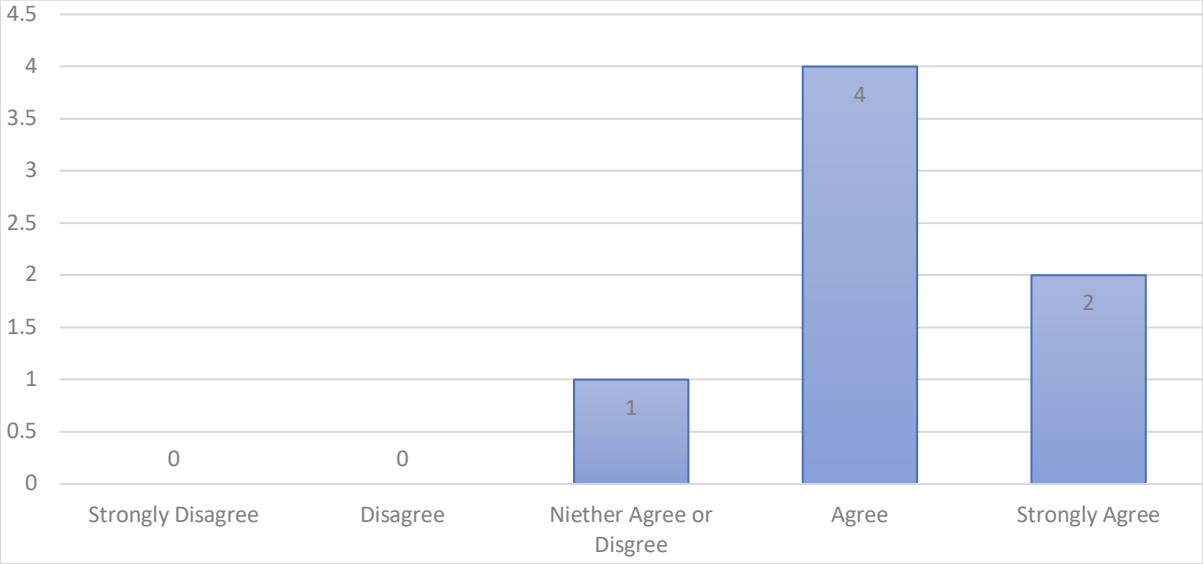
Several questions in the electronic questionnaire were used to gauge student perception around how well these strategies (and the associated pedagogical change) had modelled the use of the online CoP. As a starting point, the students were surveyed with the question "my teacher has successfully explained the purpose of using our online community to me" to which five agreed and two strongly agreed, offering sound evidence that the students were aware of the learning goals associated with the community (see Figure 4.1)

Figure 4.1: My teacher has successfully explained the purpose of using our online community to me



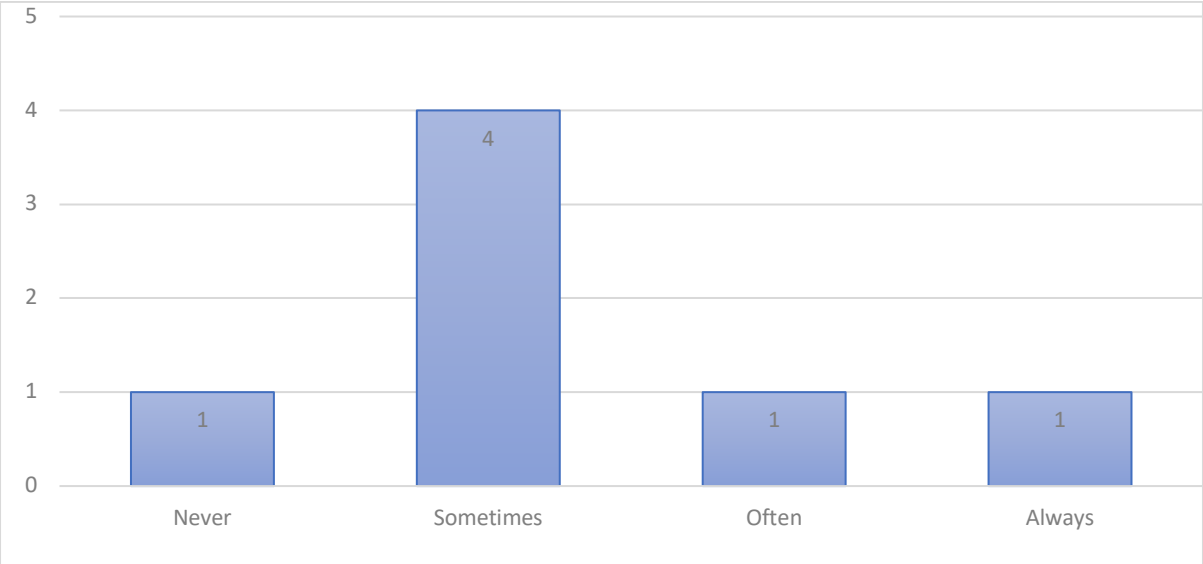
When asked "my teacher has successfully modelled ways to use our online community by posting and commenting themselves", two strongly agreed, four agreed and one neither agreed nor disagreed (see Figure 4.2)

Figure 4.2: My teacher has successfully modelled ways to use our online community by posting and commenting themselves



However, when asked “when my teacher adds to our community (as a new post), I read that material”, four students reported that they only do sometimes, and one never (see Figure 4.3).

Figure 4.3: When my teacher adds to our community (as a new post), I read that material



Initially the results in Figure 4.3 seem to be in contradiction with Figure 4.2—if only one student always viewed my new posts and one often, how could the other five

students know I had modelled the online CoP successfully? The observational evidence sheds some light on this question. It was observed that students were seen to be using my comments as models for their own, which offers some evidence that this type of modelling was successful. However, the question in Figure 4.3 refers to creation of new posts, or in other words the posts that I created about my own interests. These were to model how the online CoP might be used outside of class tasks and encourage students to share their own interests and thus make the CoP more student driven. There was little evidence that this modelling had any effect, with nearly all observed postings by students being related to the completion of class tasks only.

When discussing the role of the teacher in the focus group session, this conclusion seemed to bear out. Students generally nominated that the teacher's comments on their own posts as examples of successful modelling of the online CoP but did not make mention of the teacher's posts that explored their own interests (or how that might have encouraged them to do the same). An example of discussion around how the teacher's comments modelled the online CoP successfully was offered by Student D:

> "He comments on everything that we do and then if we comment on someone else's post he asks further questions relating to our one so it can help get out the finer details."

Here, Student D also alludes to how the shift in pedagogy towards modelling community membership through online interactions and comments had started to aid in the development of critical thinking skills ("…so it can help get out finer details."). Student F also offered a similar observation when talking about teacher modelling, noting the effectiveness of teacher comments: "…if we make a post he will often comment on the post asking us further questions and also encourage everyone else to post a comment as well."

Frequency of use

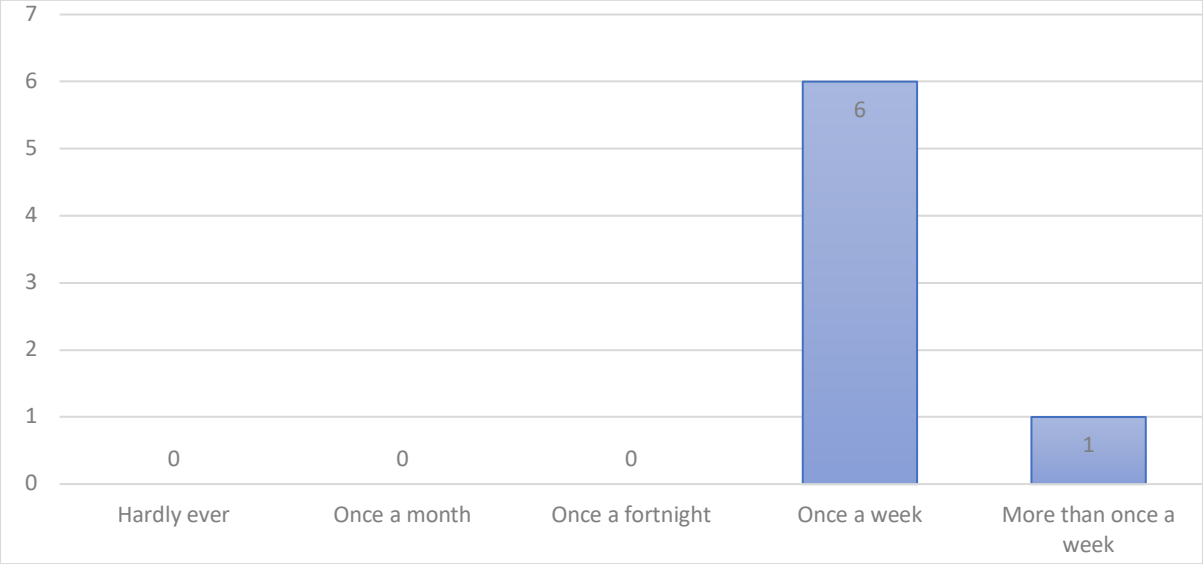
Before examining the results of being involved with an online CoP, we shall first examine how often the students used the online CoP over the course of the research in order to gain some much-needed context. Students were observed to be using the online CoP at least once a week during class time, with an average of at least thirty minutes of time in those classes dedicated to using the online CoP. The bulk of this time was spent on completing in-class tasks (of which some will be presented in greater detail below). This class time, however, didn't equate to a constant stream of new comments or posts. Rather, students often took quite a deal of time reviewing each other's work and taking time to consider how they would approach giving feedback to others. Thus, whilst students were accessing the online CoP a reasonable amount, they weren't always creating new content in a proportional manner (i.e. one comment or post per visit).

Exploring this further, an examination of student posting and commenting history during the course of the research project (over the course of twelve weeks), revealed on average a student posted a new topic two to three times and made four to five comments on other posts. All of the student's output were close to these averages. The largest number of posts created by an individual student was four and the largest number of comments by an individual student was six. The least number of new posts created by a student was two and the smallest number of comments three. These average figures equate roughly to one student posting every four to six weeks and one comment roughly every three weeks. If students were using the online CoP once a week, this would mean that their output on average would be a new comment every third session and a new post every fourth to sixth session.

Generally, it was observed that students made these contributions to the online CoP predominantly during class time and not outside of it. However, whilst students rarely posted or commented outside of class time, observation couldn't reveal how often students viewed or read posts/comments on the community outside of class time. Unfortunately, Google Plus offered limited statistics in this area for the owners of Google Plus communities.

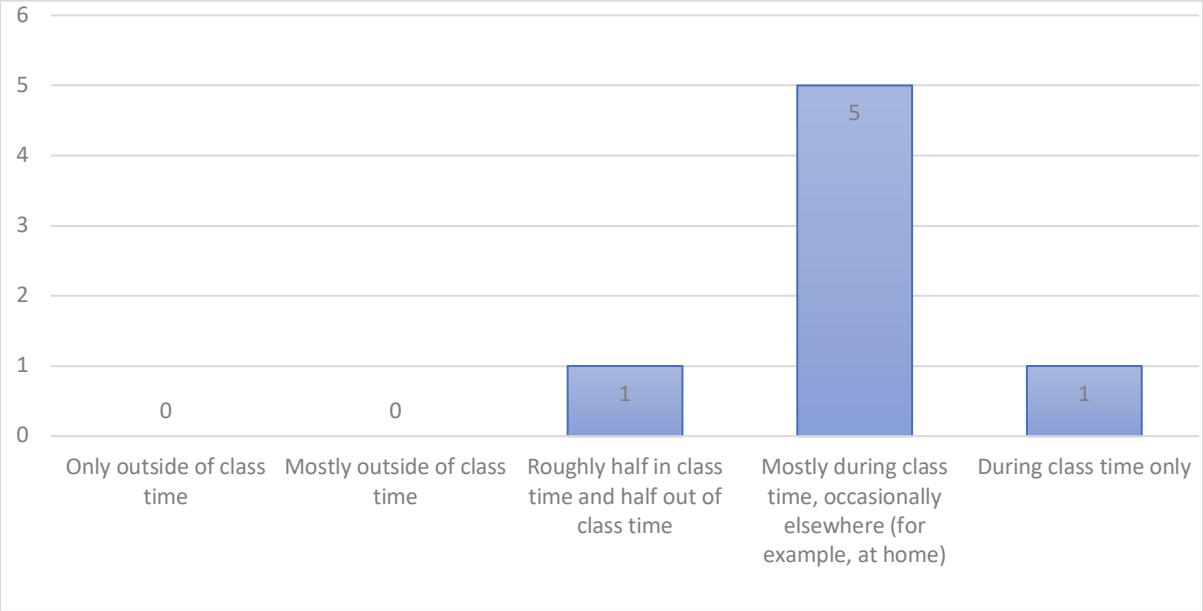
Therefore, to further understand students' usage of the online CoP, several questions in the electronic questionnaire addressed how and when they used the online CoP. The survey confirmed that all students viewed the online CoP (where viewing didn't involve posting or commenting but might include reading or watching posted videos) at least once a week (see Figure 4.10)

Figure 4.10: On average, I view our online community of practice (viewing does not have to involve posting or commenting, but might involve reading other's comments and posts or watching videos)



When asked where they view the online CoP, the majority nominated it was either only during class time, or mostly during class time (see Figure 4.11)

Figure 4.11: I view our community of practice



This provides some evidence that students are accessing the online CoP outside of class time, but not all that often, which is an indication that students are most likely accessing the online CoP when directed to by the teacher for in-class tasks rather than via their own volition in their own time.

Students were also asked to nominate how often they add a new post to the online CoP and how often they comment (see Figures 4.12 and 4.13)

Figure 4.12: On average, I post a new topic to our online community of practice

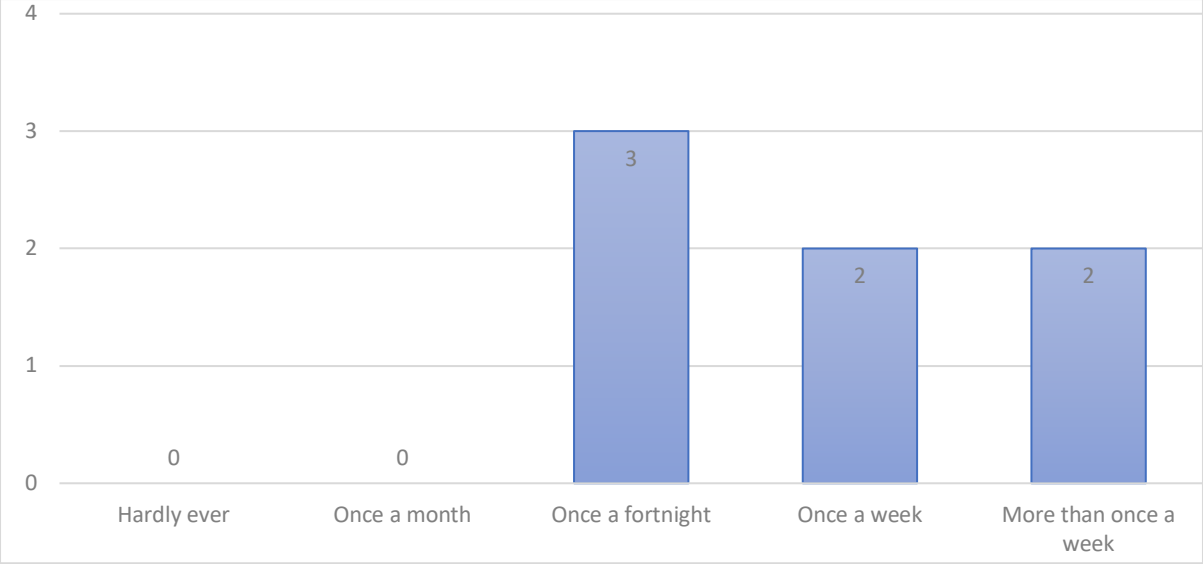
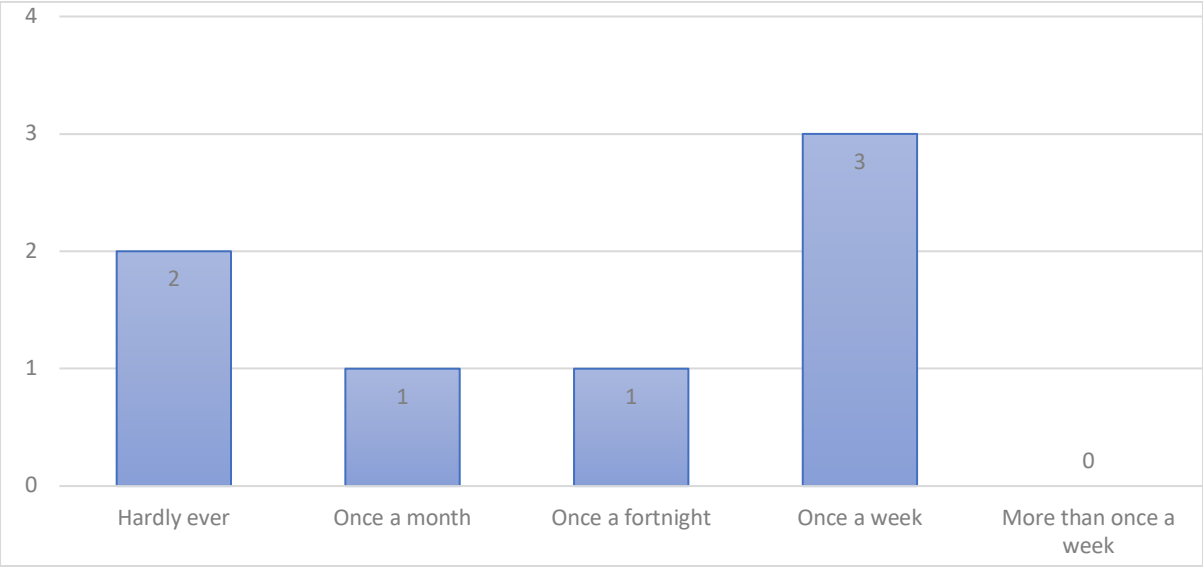


Figure 4.13: On average, I comment on a topic on our online community of practice



Interestingly, students by and large, tended to overestimate how often they post new topics—even at once a fortnight they would have averaged six posts across the twelve-week research period, significantly more than the observed average of two to three which is closer to the once a month option (although some students may have considered once every six weeks as being hardly ever).

A large portion of students have also overestimated how often they comment. The average student was observed to comment four to five times, so the three who

suggested they commented once a week would've needed to have commented at more than twice this rate over the research period.

When discussing usage in the focus group, it became clear that using the online CoP didn't always have to mean commenting or posting. Students also used the online CoP as a repository that they could return to reread material and clarify information at their leisure. Student D commented that "… if I get stuck I can always go back to Google Plus, I can read the comments again and work on there and it's helped improve my singing heaps throughout this year". Student E offered a similar observation: "…I think it's much better on Google Plus as well because you can go back and read it again, what is it that the last comment has said". This gives some insight into how the students are using the online CoP—not all visits to it need to be about creating new content but rather there is value for the students in returning to existing content in order to further build understanding around certain topics.

Opportunities for peer to peer learning and collaboration

Throughout the course of the research project, there were several tasks given to students that were designed to allow them to experience greater opportunities for peer to peer learning and collaboration. These tasks were also designed to build students' capacity to be active participants in the online CoP via scaffolding them in the engagement of peer to peer feedback and collaboration. This, along with the modelling discussed earlier in this chapter, was a significant pedagogical shift for me. These tasks included posting introductory videos, filming and sharing practice sessions and practice performances and collaborating on written analysis. Observational data was collected around two of those tasks, with one (the first described below) showing clear evidence of peer to peer learning and collaboration taking place, whilst the second wasn't as successful, with little peer learning observed.

The first task was designed to aid students to engage in peer to peer learning in preparation for a solo performance. Initially, students were asked to analyse two contrasting performances of a piece they were learning and then compose a post in the online CoP where they discussed how these different interpretations might shape

their performance and what technical difficulties they needed to overcome. They were then required to review each other's posts and offer comments and advice to each other on how they would go about tackling the technical difficulties and interpretive challenges nominated. Finally, each student was then to create a video of themselves performing sections of the work with discussion around how they'd incorporated peer feedback and what they'd learnt.

An example of the outcome of this process is presented below in the posts and comments of students in their online CoP. The comments offer evidence of peer to peer learning opportunities afforded by both the task and the use of the online CoP. Student B's initial post discussed the technical and interpretive challenges (with reference to two performances) of their chosen work:

> "https://www.youtube.com/watch?v=lAnY0f4_QAU
> 1. My technical challenges in this piece are: There was one part in the song where it was hard to get the pitching right. I should also try to act it out a bit or make it sound lullaby. How do I act it, how do I sing it musically?
> 2. https://www.youtube.com/watch?v=Wp6G-w-87rI This is a different recording. This performer in the verse is spiting the phrase into two [phrases] (compared to the first version) to keep it more conversational in the first recording he acts it out a bit more it is also slower
> 3. Summary: I need to figure out how I am going to sing it."

The comments, provided by other students, detail possible approaches or solutions to the problems posed. For example, Student A offered advice on how the phrasing in the piece might be interpreted and how this would affect technical difficulties:

> "If you sing the first bit conversationally it could potentially help you put more power behind your voice because you'll have more breath. And if there are any long passages it can help you maintain [your] breath without compromising balanced breathing patterns."

In response to Student A's suggestion of singing more conversationally, Student D offered that the original poster might consider using a mix of both conversational and more traditional phrasing:

> "+[Student A] well what if he could include the best of both? you could also look at the lyrics and look at the [different] emotions displayed in the lyrics and [incorporate] that with the song and make sure to specify each [character]"

The mention of specifying 'each character' by Student D is in reference to the song is originally a duet from a musical (although Student B planned to perform it not as a duet but as solo, singing both parts). To pick up on the musical implications of this, I asked the following follow up question of Student D:

> "+[Student D] If [Student B] is to approach this as a musical theatre piece, how might he go about it? How would you approach learning a song that is sung by a 'character'? What questions do you need to ask as a performer? To what extent do you need to understand the character to perform the song?"

The last comment in this example was offered by the original poster, Student B, where they offered "this is my video of singing the two different visions of the song. I prefer the version where I don't pause because I think it is easier to sing". This comment included a video of them performing the song in two different ways, along with a brief discussion of what they had learnt from trying the different approaches suggested by their peers, demonstrating what they had learnt from the peer learning process in this task.

In addition to the task described above, observational data was collected around a second task that focused around students developing a research topic for an internally assessed standard at level two NCEA. The initial task was detailed in a Google Plus post, where I posted:

> "In-class activity - NZ Music (Level 2):
>
> Below, post at least one topic that interests you (in the context of NZ music).

For the topic(s) you've posted, also include three questions you'd like to answer about that topic.

For example, if I choose the topic 'Rock in the 1980s, in New Zealand' my questions might be:
-Who were the famous NZ rock bands in the 1980s?
-What were the stylistic features of rock music in the 1980s in NZ?
-How similar (or different) was New Zealand's popular rock music in the 1980s when compared to music in other markets (for example the USA)?

We will use this to start refining your research process for this standard. You should also read what everyone else is interested in, and what questions they've asked around that topic."

Students responded well to the initial task, and all posted their possible research areas as comments. These comments were then followed up with comments by the teacher. For example, Student D's initial comment around a possible research area is present below:

"The use of Te Reo in New Zealand pop music.
-Should they use more Te Reo in New Zealand pop music/why?
-Why don't people use Te Reo in pop music more/at all?
-What songs can be named that do use Te Reo?"

To which I offered in reply:

"+[Student D] Well done, this is quite a fascinating topic. It has the potential to be difficult to answer in some ways, as the roots of the issue are, I would propose (remembering I'm far from an expert on this topic), extramusical. ie the answer probably lies in the issues of biculturalism and how well NZ as a country is living up to its obligations on the Treaty of Waitangi. Having said that, it is certainly doable. It will just require some careful thought around structuring your investigation. As a starting point, look for someone else who

has tackled that question (googling 'why is there no Te Reo in NZ popular music' throws up some good starting points).”

Student E also posted possible research areas, with the following comment:

> “New Zealand Female artist in the international industry
> -How have New Zealand female artists impacted international music?
> -What female have artists made it into international music?
> -What is the success rate of a female artist making it big compared to a [male] artists in New Zealand? “

To which I then replied with the following feedback:

> “+[Student E] Another great topic which is a quite an interesting and complex one. It is similar in some manner to [Student D’s] questions, although I think females have probably made a little more inroads when compared to Te Reo in popular music. A good start might be compiling a list of NZ artists who've had success in the last 10-20 years and then look at whether they are male or female. This might give a good starting point. The difficulty to some extent is defining 'impact' and 'success', as both these terms can mean many things. You might have to think about how you define them. For example, is success records sold/downloaded (commercial) or is it in terms of artistic success (good reviews, awards won)? These are not always the same thing.”

Once the initial task of posting some possible research areas was completed, students were then asked to read each other’s research ideas (along with my feedback) and provide comments on each other’s plans in the form of follow up questions—thus turning the task into one that was based in peer learning and collaboration. To guide this, students were asked to look for something that interested them in each other’s research areas, or to look for areas of overlap or commonality. The second option afforded the goal of being able to share research resources or techniques.

Unlike the first task, described above, students didn't actively engage in the peer learning and collaboration aspect of this task. Student D was the only student to add another comment to this discussion (despite all students being encouraged several times in class). They noted some similarities with another student's research area (Student E):

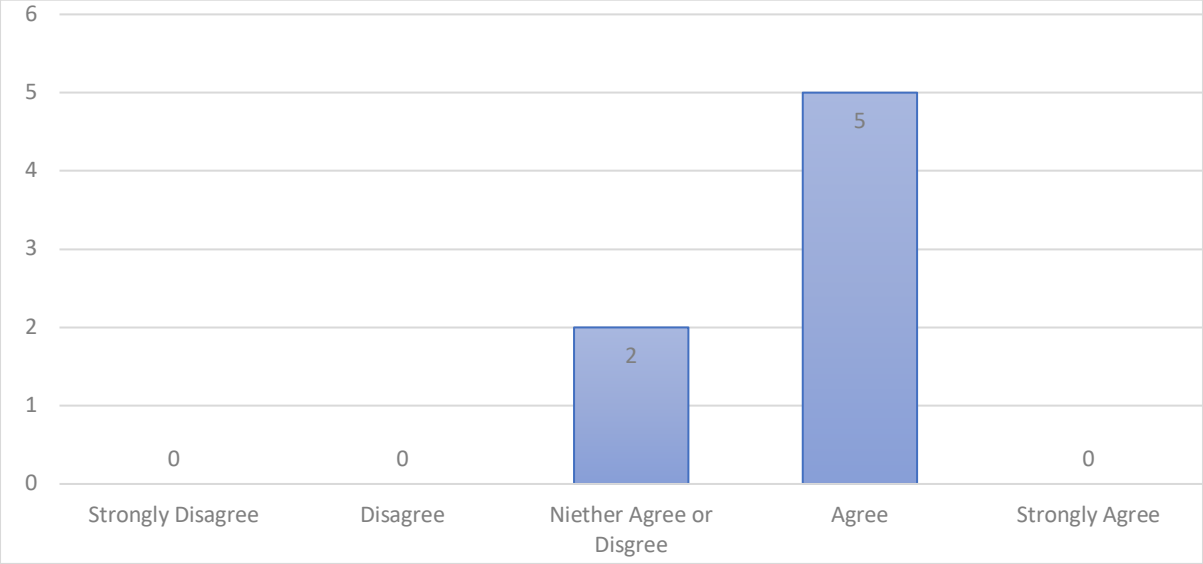
> "+[Student E] similar to mine in the sense that you're focusing on how women have been displayed in NZ music where I'm focusing on why Te Reo isn't in NZ music as much as [English]."

Student E didn't respond to this comment or engage with it further, and this is where any opportunity for collaboration or peer learning to take place ended. Thus, of the two tasks presented here, it was seen that students more readily engaged in peer to peer learning and collaboration in the one that focused on their practical work, whilst the research-based task was much less successful.

The survey and focus group data sheds further light by offering student perception around whether they have experienced greater peer to peer learning and collaboration opportunities through the use of an online CoP. This includes their perception around the above described tasks as well as several others where observational data wasn't collected—thus it reflects a wider experience than that contained in the two tasks described alone.

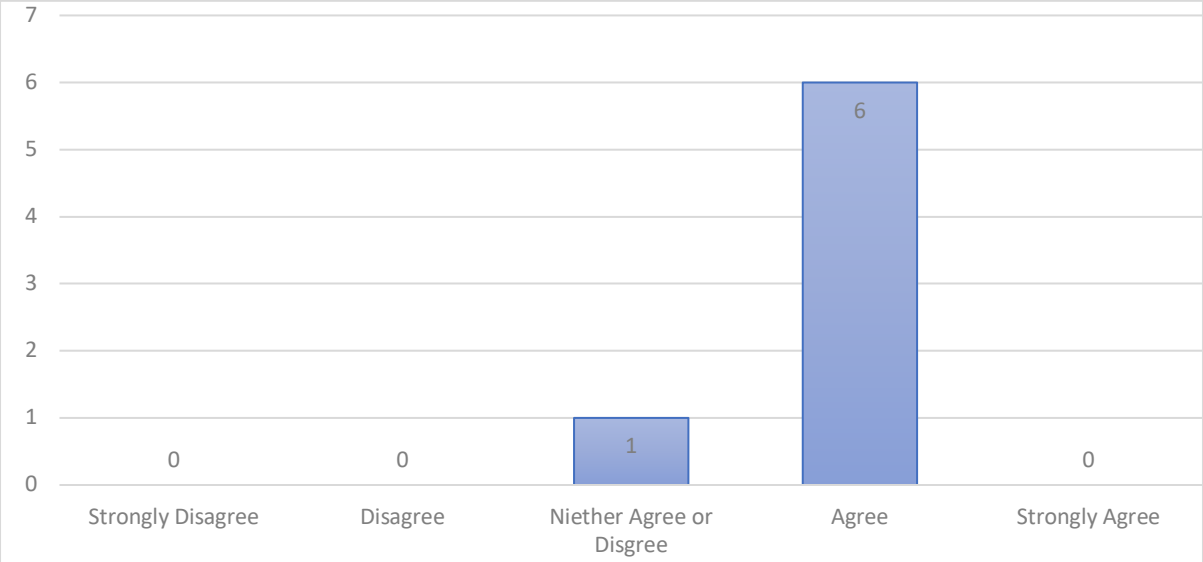
When posed the question: "I have had greater opportunities to learn from other class members by using our online community?", five respondents agreed and two respondents neither agreed nor disagreed (See Figure 4.4).

Figure 4.4: I have had greater opportunities to learn from other class members by using our online community



When asked specifically about collaboration, six respondents agreed and one neither agreed or disagreed (see Figure 4.5).

Figure 4.5: I have had greater opportunities to collaborate with other class members by using our online community



Whilst initially this might seem that the students felt there was more opportunity specifically for collaboration than peer to peer learning to occur, the difference in responses between the two questions is relatively statistically insignificant (given

only one more respondent agreed in the question around collaboration). It is clear, however, that the bulk of respondents at least agreed that there was increased opportunity for both peer to peer learning and collaboration when using an online CoP. It is also worth noting that no students felt strongly enough about either of these questions to 'strongly agree', which may be an indication that they felt opportunities were increased, but perhaps not as significantly as they might have been.

The value of these opportunities were clearly identified by students in the focus group discussion. In fact, the students' perception of lack of previous opportunity for peer to peer learning and collaboration largely mirrored my own (as outlined in the Introduction Chapter) with Student D noting that "…when we're working, normally we don't really talk to each other as much as we probably would, so going online does help that a lot." Student A concurred with this, offering "because before I don't like to talk to other people about what they're doing…".

The data collected in the focus group discussion also confirmed that students did perceive that there was an increase in peer to peer learning and collaborative opportunities. When asked about these opportunities, Student A nominated that: "There's problems you face and it helps everybody just to having a platform to communicate with each other about their technical challenges and stuff" whilst Student C offered "Well, I think yes because it's just another way to communicate to the whole class. You've posted and then everyone can view it and comment on it and stuff. So it's pretty handy".

The above comments from students largely focuses on the implications of peer to peer learning on practical work, which is in line with the relative success observed with the task around preparing solo performance presented above. Interestingly, whilst the second task (around researching New Zealand music) did not obviously result in a collaborative student effort, Student F offered:

> "Yes, I would say it's helped us collaborate more because not just with the performance assessments, but with other assessments. He gives us tasks to do on there where he asks us to answer some questions to get us started on

the assessment and then we can see other people's and reply to that. Where we probably normally wouldn't look at each other's work and give comments, we can do that online."

This indicates that whilst there was no significant evidence of peer to peer learning or collaboration observed in the online CoP in the second task described above, the task may still have had some value to students.

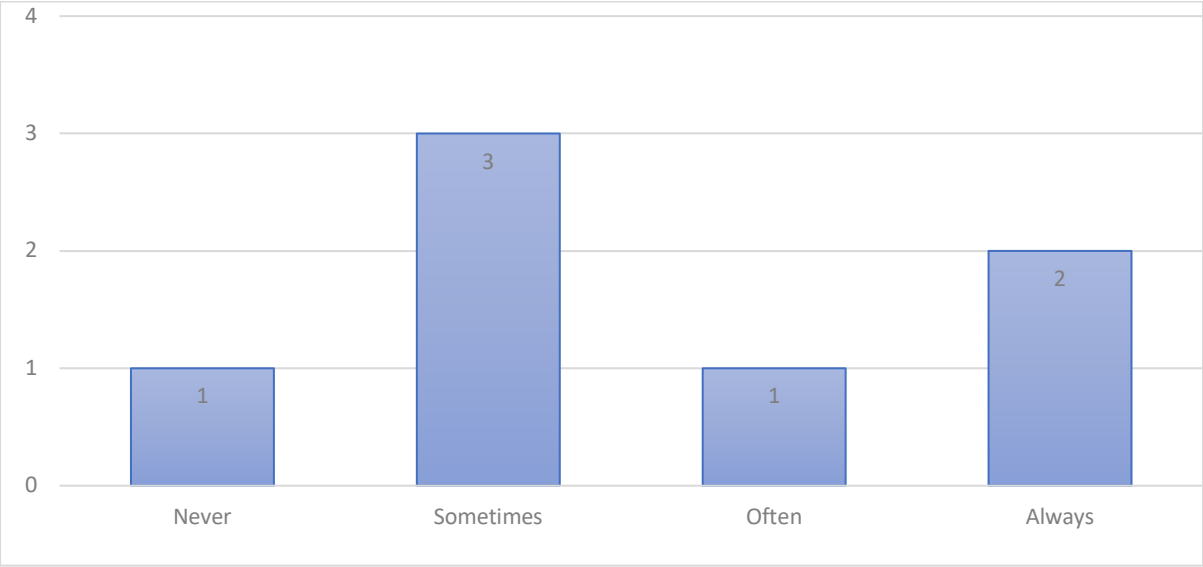
Outcomes of increased opportunities for peer to peer learning and collaboration

One significant outcome observed from the increased opportunities for peer to peer learning and collaboration is that students are more aware of the work their classmates are doing during class. As nominated by students above, many of them didn't talk to each other about their own music as much as one might expect given they share a common interest. By making their learning visible to each other through the online CoP, each student now has a greater understanding and awareness of what other students are doing. This was clear in my observations when talking to students—the number of times that students would display knowledge of what others were up to in the class (for example, knowing what repertoire others are working on) has clearly increased since the introduction of the online CoP.

Peer to peer learning and collaboration has led to students using other students as sources of information when it comes to solving problems on their instruments. It was clear that students are incorporating the ideas offered by other students and this was evident in several conversations I had with students about the progress they were making on their performances. In these conversations students would regularly mention the advice given by others in the class and how they were using that to inform their next learning steps.

Whilst observationally I saw there was evidence that students were valuing and incorporating the feedback of others, when surveyed with the question 'when someone comments on my post, I read it', student responses were quite varied as seen in Figure 4.6.

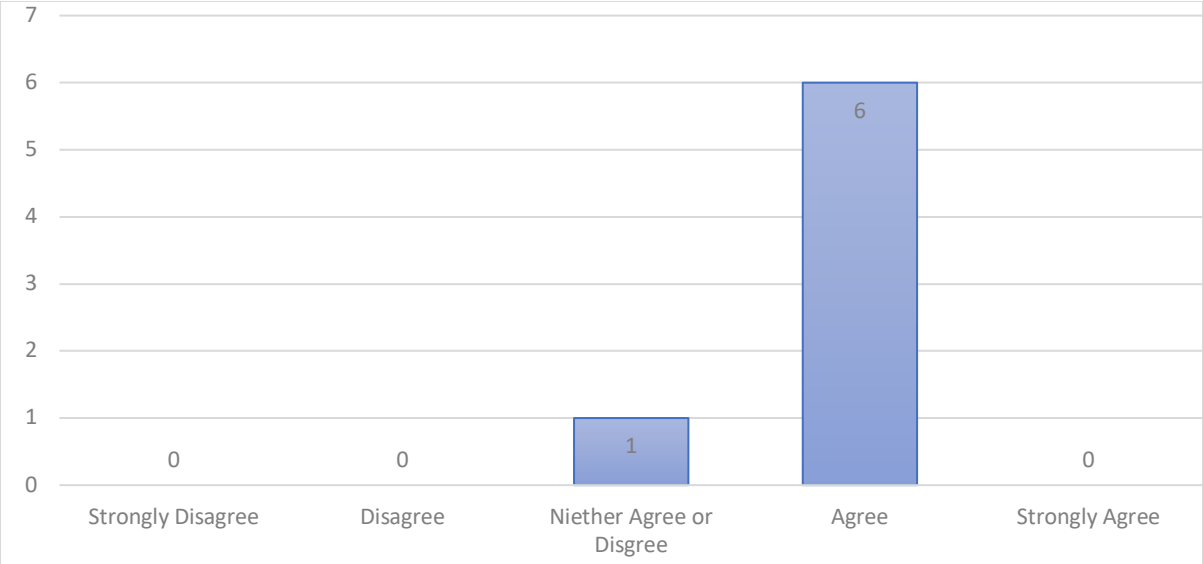
Figure 4.6: When someone comments on my post, I read it



The bulk of responses (three students) nominated that they read other's comments on their own post only sometimes. The next highest group were those who always read those responses (two students). Perhaps surprisingly, one student said they never read other comments.

Despite the seemingly less than optimal engagement from some students with reading comments left for them, when students were posed the question 'comments by other members on my posts have aided my learning' six agreed, with only one neither agreeing nor disagreeing (see Figure 4.7)

Figure 4.7: Comments by other members on my posts have aided my learning



Thus, students have nominated they value the comments made by other members, even if they don't always read them.

The focus group discussion added some illumination to some of the issues explored above. Firstly, there was agreement that by using the online CoP, the students have a greater knowledge of each other's musical activities and this has facilitated building links between students in the class. Student E offered the following:

> "I think Google Plus has helped me a lot with communication because if there is feedback or something that somebody's given me and I need to just expand on that, I can go see them…. So if this person is good at that, you would go to them, that person that and then you go to them"

Students also consistently nominated that their own practice had improved through the incorporation of the feedback of others, reinforcing the value nominated in the survey result. Student A noted that:

> "When people posted feedback, I actually took it into consideration…it was something I could constantly review and I could actually think about it and revise it when I was practicing the piece I was doing."

Whilst Student D offered:

> "It's like when I ran through the song that everyone reviewed and it helped figure out the technical challenges and how I can build on that, it was really useful."

Student E expanded more on this, offering greater detail about how the peer to peer learning opportunities had helped them overcome specific technical difficulties and also nominated the role of the teacher in the discussion as being important as well:

> "…when I posted my technical difficulties I didn't know how to get round them, but just somebody commenting, why don't you try a couple head voice, a couple in chest voice to get around your verses. And then with the bridge in one of the songs that I was singing it's very, the note change is very [sudden] and just getting advice on how to fix that. And then as well as the teacher coming in and really elaborating on it, on what people say. It's improved me as a singer on how to go get past those technical difficulties."

These experiences do offer a reasonably clear reinforcement of the value of peer to peer feedback, but do not offer a clear explanation as to why students don't always read the feedback they are given.

Level and quality of discourse

Making valued judgements about the quality of discourse is difficult, particularly as each student will experience learning differently in an online CoP (Wenger, White, and Smith, 2009). However, it is still possible to present some basic observation around how 'deep' discussion went within the online CoP in order to shed further light on what the students experienced.

As nominated in the findings around teacher modelling, students were often seen to be using my comments as models for 'good commenting'. A key component of these comments were the use of follow-up questions that were designed to challenge the original poster's understanding, and this approach was often taking by students in

their comments as well. It was observed, however, that often these follow-up questions (be they from me, or from other students) went unanswered (at least in a visible way on the online CoP). Examples of this can be seen in the first task around solo performance that was discussed above. Here, I provided the following comment to Student D:

> "+[Student D] If [Student B] is to approach this as a musical theatre piece, how might he go about it? How would you approach learning a song that is sung by a 'character'? What questions do you need to ask as a performer? To what extent do you need to understand the character to perform the song?"

This was a typical example of the type of follow-up questions I asked on the online CoP in an effort to encourage students to think more critically. This follow-up question, however, was not addressed by Student D (or at least in the form of a comment/reply in the online CoP). As mentioned above, the task concluded with the original poster, Student B, posting a comment along with a video that summarised where they got to with their learning. It is worth noting, however, that this is where the conversation on this topic ended. Further engagement from Student B's peers (in the form of comments/feedback on the video and its content) would most likely have had continued benefit for all and allowed students to further develop their critical thinking skills.

This lack of a deeper level of discourse was relatively typical of the 'quality' of posts and comments observed in the CoP. The discussions in most posts didn't proceed past a handful of comments and there was a distinct lack of 'back and forth' which is a cornerstone for a freer exchange of ideas. This is supported by the survey data above (see Figure 4.6)—clearly the first step in engaging in an open discourse is reading comments that are left for you.

The focus group data does, however, offer that whilst the students generally didn't reply to questions left by others, these questions were still of value to them. This was affirmed by Student D comment that "… if I get stuck I can always go back to Google Plus, I can read the comments again" and Student E's offered a similar observation: "…I think it's much better on Google Plus as well because you can go back and read

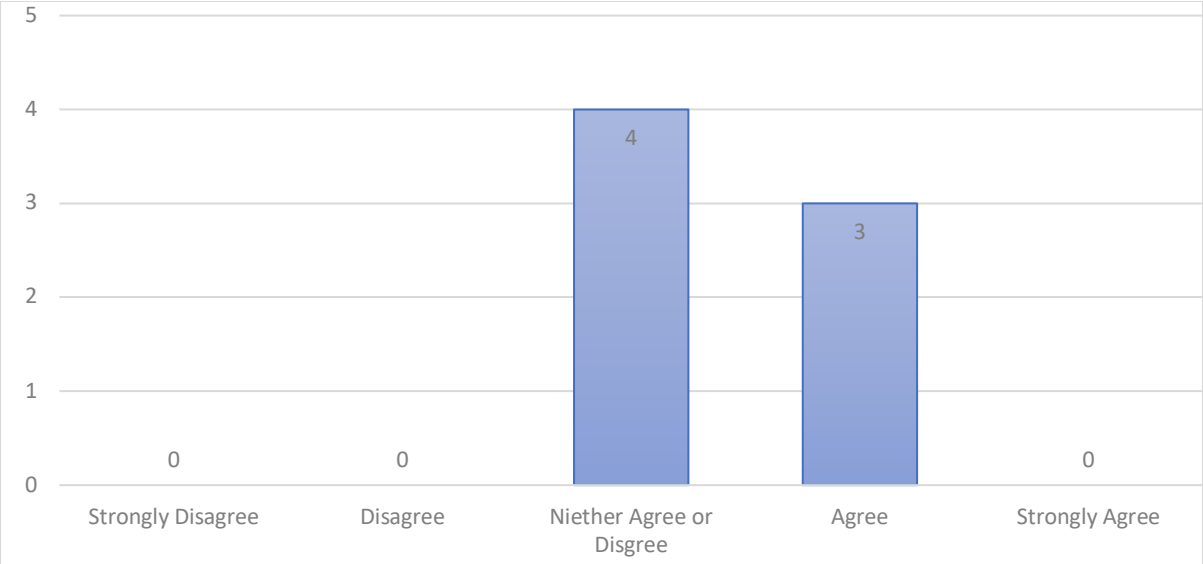
it again, what is it that the last comment has said". Both give an indication that the students are taking on board what is being offered to them through the online CoP, even if they didn't share their further thinking through the action of replying to comments left for them.

Students as 'experts'

If students are to be confident in both their ability to give feedback, and, to value the feedback of others, they must be willing to make the move to being 'experts' or 'teachers' in the classroom. It was clear that this is an area that students felt particularly uncomfortable with and may offer one possible insight into why they may not always seek out the comments offered to them—if they are not confident being 'experts', they might also not be confident in other students being 'experts' so then the motivation to seek their feedback may not be high. Whilst students have nominated that the feedback they are receiving is of value, this perception around being the 'expert' may be a barrier to them always seeking out that feedback.

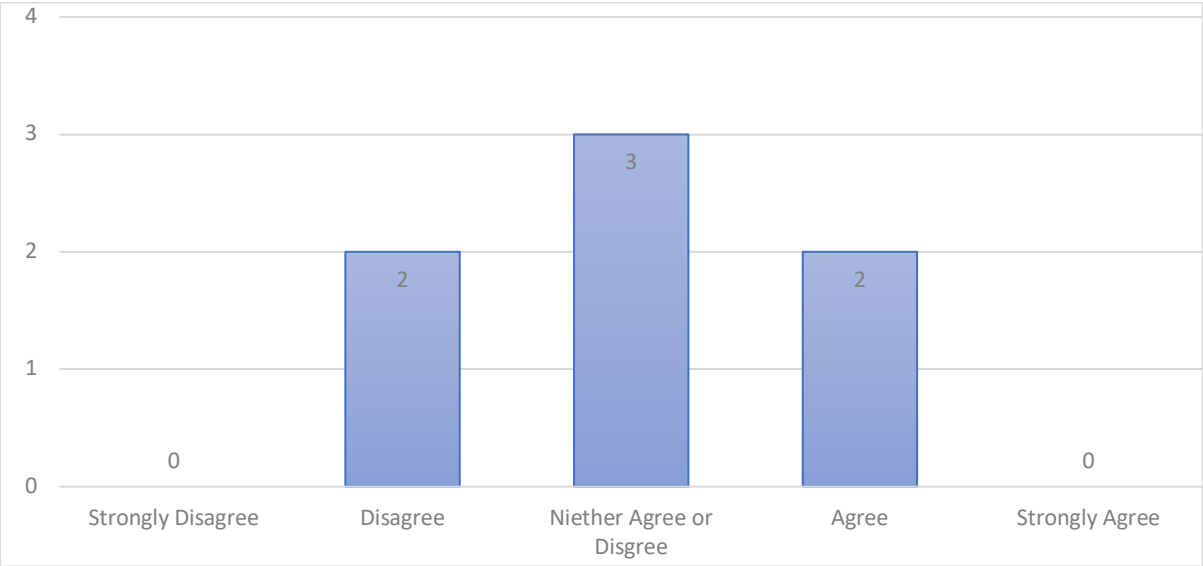
When observing student interactions online, it was clear that there was a range of ability to provide constructive and useful feedback for each other. Whilst time was spent modelling how to provide useful feedback/feedforward in class, and students were seen to be using this modelling, it was still an area that students were developing their confidence in. Perhaps symptomatic of this developing confidence was the fact that a fairly large percentage of students were not acutely aware of the learning benefit of providing peer feedback, as when they were asked if "commenting on other's posts has aided my own learning as well" (in that taking on the role of giving others feedback had aided their own learning), four neither agreed nor disagreed, and three agreed (see Figure 4.8)

Figure 4.8: Commenting on other's posts has aided my own learning as well



When students were asked "I'm confident in providing constructive feedback to others through comments", two disagreed, and three neither agreed nor disagreed (see Figure 4.9), giving an indication that this was also an area where some students were still developing.

Figure 4.9: I'm confident in providing constructive feedback to others through comments



This lack of confidence in the ability to take on the 'expert' role was evident in the focus group discussion. Student F, for example, felt out of their comfort zone when trying to give feedback to students who played different instruments:

> "Well, when I gave feedback then I didn't feel like I was being very helpful because, again, the difference with instruments. They know more about what they are doing than I know what they are doing. So, yes."

Some students, although professing a lack of confidence at the start of the process, nominated that they felt they had made inroads into becoming the 'expert'. For example, Student E offered the following:

> "So being a student, giving advice and all that and trying to help others, like teach them, really scared me because I was like, what if I give them the wrong information? What if what I'm saying is too harsh? What if people are just going to take that really offensively and then be really critical towards mine? But then with the group of people that we have I realised that it's more, it might be a little harsh but they'll look at it and they'll improve it and that's what really helps you through it. That's what I was thinking of before but didn't come out."

In a similar vein, Student D, when asked about offering advice to others noted:

> "…we're still in that learning phase of wholly calling ourselves proper musicians. So I do think we are still student to student… I think we're all learning how we can advance and hearing from other people who do what we do can help that a lot"

Here, Student D initially nominates that they are not a proper 'musician' and that all interactions in the CoP they had were 'student to student' (as opposed to 'musician to musician'). The implication here being that without being a 'musician' they cannot be the expert and that the 'student to student' is perhaps perceived as less valuable. However, they also then go on to note that they can still learn from other students. Later in the focus group, Student D reaffirmed this with "and I think everyone here,

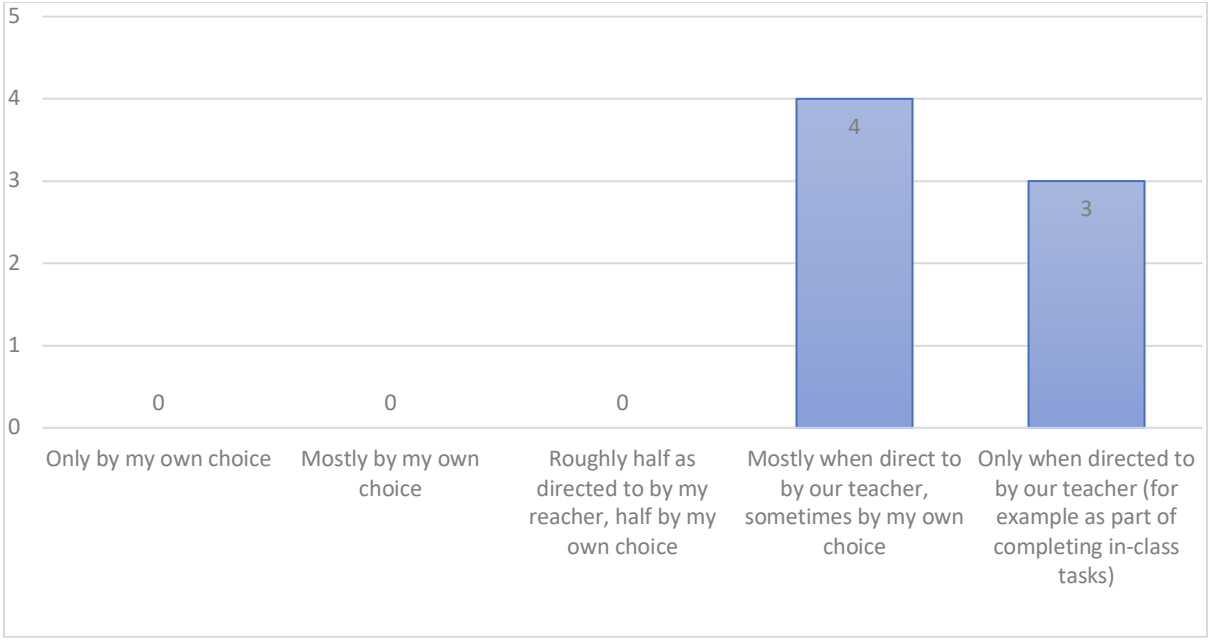
whether they think they have or not, has helped in some way or another at some point", thus clearly espousing the importance of the role that every student has the capability of assisting others.

Student ownership and the need for a larger community

In order for students to continue to grow their confidence in using an online CoP to facilitate greater peer to peer learning and collaboration opportunities, a shift from the teacher driving the online CoP to the students driving the online CoP needs to take place. As discussed under 'building community participation through teacher modelling' there was little evidence that my attempts to model behaviour that would shift the online CoP to a student-driven one was effective.

Survey information confirmed that students were still allowing the teacher to largely drive the online CoP. When asked about when they view and use the online CoP, all nominated that the teacher was largely the driving factor (see Figure 4.14). In a thriving online CoP that was owned and driven by the students, one would expect to see more students answering 'roughly half as directed…' or 'mostly by my own choice'.

Figure 4.14: I view or use our online community of practice (where using involves posting content or commenting)



During the focus group discussion, students were quick to nominate that the addition of more members from other schools would be beneficial in growing the online CoP and creating greater opportunity for more diverse knowledge to be shared and created. Student C commented to this effect:

> "I think it'd be better on a wider range of people. Like not just our school, maybe people from outside of the school… I think it would be really nice if we had more people on it because I think it would make for a better, you get more feedback, more options. Not options, opinions. And I think more is better in this case."

Student D made a similar observation, stating that:

> "It would just be useful to have other people. Because even if it is similar feedback, it's someone else's feedback that we don't know and we're not in the classroom with them every day, so it would always be interesting to see what they say…"

Google Plus: a suitable social media forum for an online community of practice?

The main strengths of Google Plus that were observed during the research project were the ability for students to easily upload videos and comment on each other's work in a closed group. The use of notifications (email and mobile) allowed both students and myself to stay abreast of developments in the online CoP in real time. All of these are hallmarks of most social media platforms of course and not specific to Google Plus. Google Plus, however, did in the context of this research project offer a distinct advantage: ease of access. Our school uses Google Apps for education and all students are provided with Google logins. Whilst many other social networks are blocked on our school network, Google Plus is accessible to students and thus in many ways it represented the option with the least amount of logistical problems to implement.

When considering the weaknesses of Google Plus as a platform for an online CoP, the most obvious, at least from my perspective, is the lack of available usage data and statistics. It is not possible to see more than basic usage data over a thirty-day period (numbers of posts, comments and +1's). Of greater use would be to track who has visited the site and how often, and how many posts/comments individual users have made (in order to generate the usage statistics previously cited, I had to individually count every post and comment in the online CoP—not a sustainable long-term approach). Also, from a teacher's perspective, of real utility would be the ability to track who has seen individual posts.

When surveyed, students largely agreed (four respondents) or strongly agreed (two respondents) that Google Plus was a suitable forum for the online CoP (see Figure 4.15). They also nominated, in the same percentages, that platform was easily used (see Figure 4.16)

Figure 4.15: Google Plus is a suitable forum for our online community

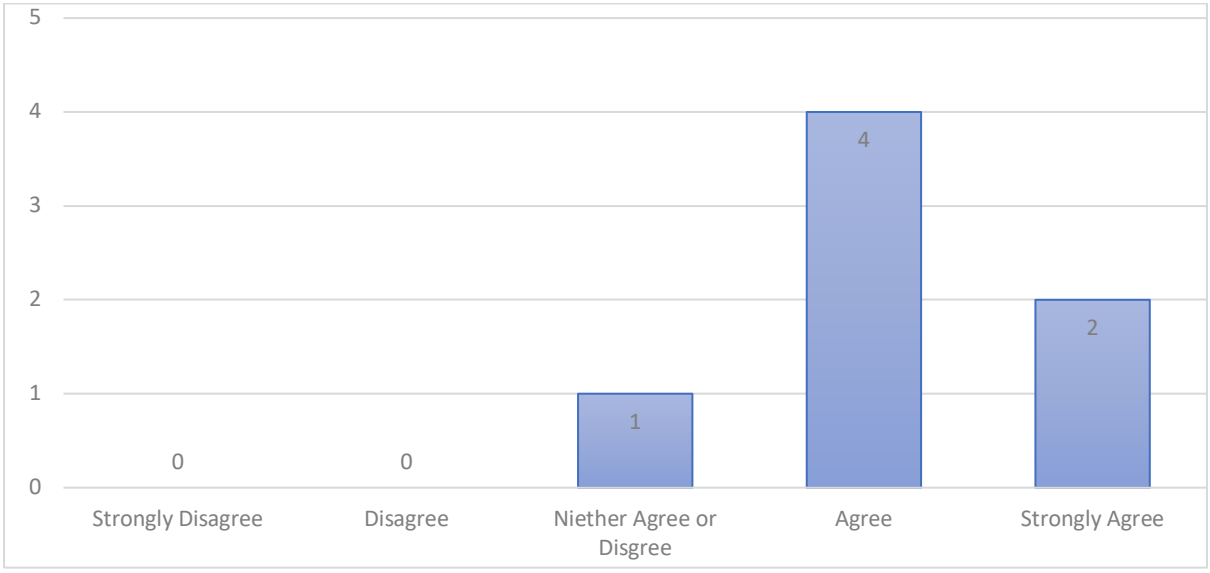
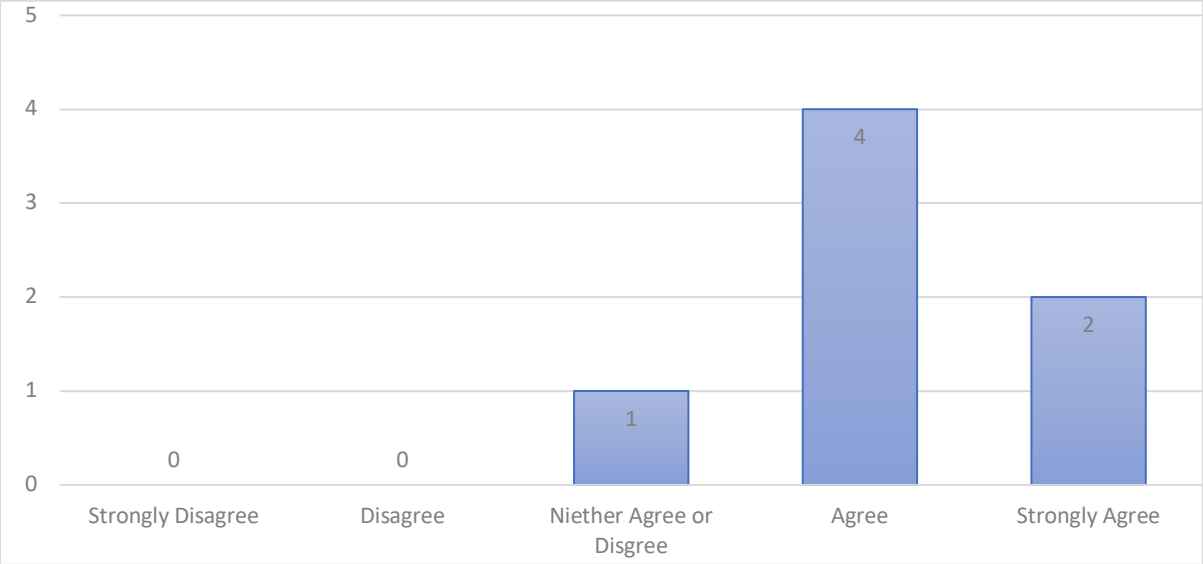


Figure 4.16: I find Google Plus easy to use



These results married with my observations that the functionality offered, at least from a student perspective, was appropriate and useful for the purpose of hosting an online CoP. Students were also surveyed to see if they had set up notifications for new posts, both via email and via mobile notification (see Figures 4.17 and 4.18) and six respondents answered yes for both, indicating that students were using these features to stay connected in real-time to the happenings on the forum.

Figure 4.17: I have Google notifications set up so that I receive an email when new posts are added to our online community

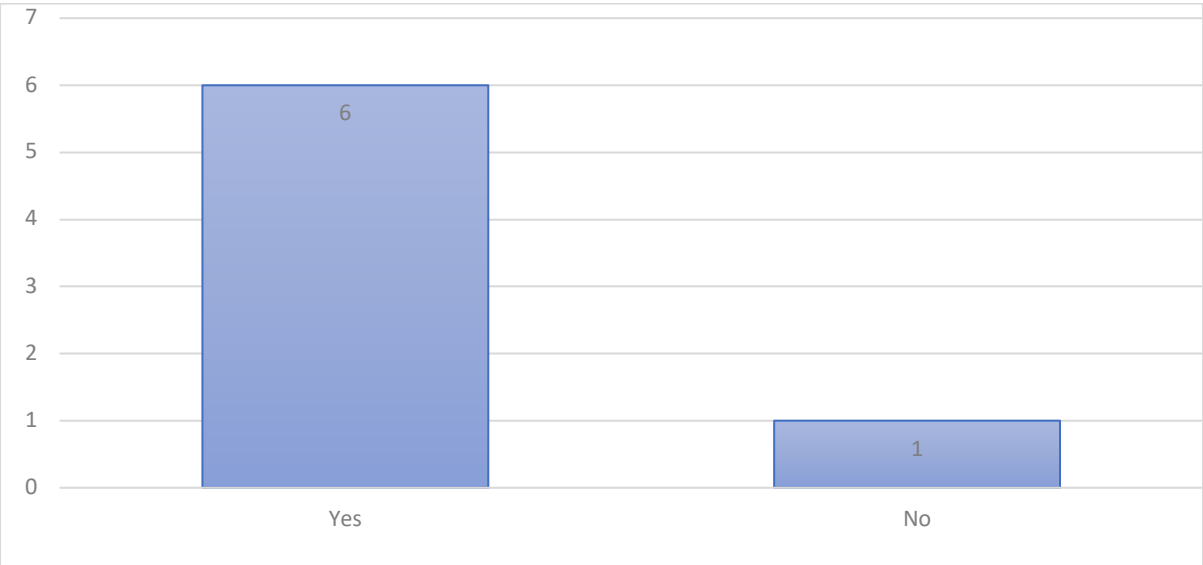
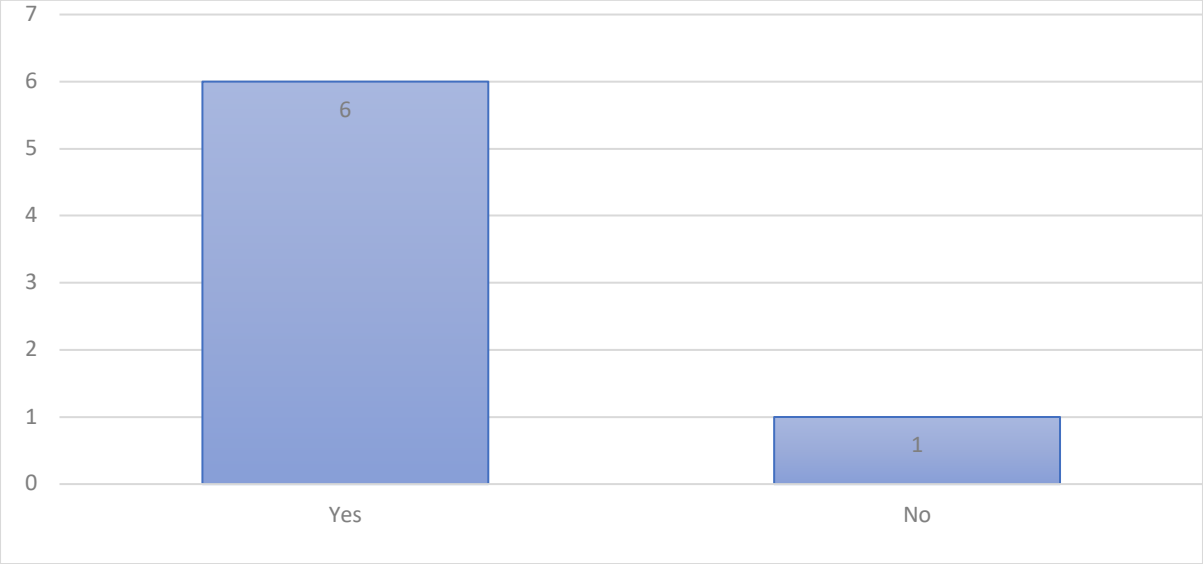


Figure 4.18: I have Google mobile notifications set up so that I receive an alert on my phone when new posts are added to our community



The initial discussion around the strengths of Goolge Plus in the focus group were largely in line with what I had observed: the ability to post videos, comment, and receive instant notifications all being major strengths. For example, Student A noted that:

> "I guess, like instant access, instant posting and you get notifications when stuff goes up so you can see feedback straight away and you can impart on your next practice and whatnot. So those are the strengths."

Student F, also pointed out that "I would say some strengths are everything that we write or comment is stored, so you can go back and look at it again, which is useful."

Interestingly, and somewhat in opposition to the survey results and the strengths they initially identified, students then went on to make a reasonably strong case for Google Plus not being the best social media platform for an online CoP. When discussing the weaknesses of Google Plus, however, the students did not nominate features that were missing or needed, but rather focused on their negative perception of Google Plus' rating as a social media platform (comparatively to others). For example, student A made the comment that "Google Plus isn't a very good social media platform because it's, if you look at the statistics you can see that Google Plus is definitely at the bottom of all social media." Affirming this was a

comment made by Student E who noted that “it is not a platform that we would go onto our phones and maybe like, oh, there’s Google Plus, let’s go onto there”, with the implication seemingly being that student wouldn’t consider it a normal social media platform for them to engage with. Student D offered a possible alternative, noting that “So I think if it was something like we had a Facebook page, we’d interact more maybe”.

Summary

The findings presented above identified several key themes. Firstly, making a pedagogical shift to focus on building student capacity to participate in an online CoP through teacher modelling of being an active community member and offering regular comments and feedback to students was shown to be effective. However, modelling ways in which students might take ownership of the online CoP was much less effective and the CoP was seen to remain largely teacher-driven throughout the course of the research.

That data has shown that the use of an online CoP has created an increase in the number of peer to peer learning and collaborative opportunities for the students in my class. An examination attempting to quantify that increase reveals that students have been consistently using the online CoP for these purposes throughout the course of the research. However, the amount of content in the way of posts and comments produced was not as high as one might assume for the time they have spent in the online CoP. Nonetheless, the students have nominated that peer feedback and collaboration has improved areas of their musical practice, particularly in the practical area. That being said, the quality of discourse found within the online CoP reveals that students are still in the initial stages of developing their skills to collaborate, with there being a distinct lack of back and forth between students where knowledge is built at a deeper level (and in a way that is visible in the CoP).

It is clear that the students are still somewhat uncomfortable with the idea of being a source of knowledge or expert in the classroom. Whilst some have noted that they feel their confidence has grown in that area, it would seem that this issue is one hurdle that still must be overcome if the online CoP is to become more student-

driven. It is also clear that a more diverse membership base (including participants from other schools) is desired by my students.

Students were generally at home with the functionality of Google Plus as a forum for the online CoP, however, they were not as comfortable with it as a social media platform. The distinction here is that the ‘social’ aspect is clearly important for them—Google Plus lacks social media credibility the way the likes of Instagram and Snap Chat do with my students and therefore there was an observed bias against using it as a main platform. From a teacher perspective, functionality was found to be sufficient, but the lack of detailed usage statistics hampered the ability to clearly track student engagement with the online CoP in an easy fashion.

The main themes in this chapter will now be considered in the next chapter where they will be discussed with reference to the relevant literature. This discussion will form the basis of the recommendations offered.

CHAPTER FIVE: DISCUSSION

Introduction

In this chapter, the key themes that were identified in Chapter Four will be discussed in relation to the relevant academic literature. This discussion will be used to inform a list of recommendations that will be presented. The limitations of this research will also be addressed before a conclusion will offer answers to the research questions posed at the outset of this thesis.

Within the Findings Chapter the following key themes were identified:

- Pedagogical change and building community participation through teacher modelling
- Opportunities for peer to peer learning and collaboration
- Frequency of use
- Outcomes of increased opportunities for peer to peer learning and collaboration
- Level and quality of discourse
- Students as 'experts'
- Student ownership and the need for a larger community
- Google Plus: a suitable social media forum for an online community of practice?

In order to aid discussion, the themes of 'opportunities for peer to peer learning and collaboration' and 'outcomes of increased opportunities for peer to peer learning and collaboration' shall be discussed in relation to the relevant literature together. The same is true for the themes of 'engagement with and frequency of use' and 'student ownership and the need for a larger community', which will also be discussed concurrently whilst addressing the relevant literature.

Pedagogical change and building community participation through teacher modelling

Valle et al (2016) note the importance of several specific skills that need to be built if students are to be successful peer to peer learners and collaborators: critical thinking, the ability to critique each other's work, and the ability to make improvement

based on feedback. Valle et al (2016) also propose that the teacher's role shifts from one of instruction to one of building student capacity to be critical thinkers, able to critique their own and others work along with the ability to make improvements based on peer feedback. Throughout the course of the research project, the teacher modelled the first two of these skills through commenting on student posts. The findings suggested that the modelling of critical thinking and critique of other's work via comments in the online CoP was successful in starting to build this student capacity, with students acknowledging the usefulness of these comments from the teacher both for their own learning and as examples from which they could model their own comments/feedback from. This affirms the notion that the receiving of instruction around and observing of meaningful feedback is a key component of students being able to be comfortable in their ability to contribute to online discussions as nominated by Ertmer et al (2010).

Another aspect of the teacher modelling observed in this study was to encourage students to move beyond the tasks given to them by the teacher, and instead to create their own direction and content. The findings suggest that these efforts were, however, of minimal effectiveness during the course of the study. Olofsson, Lindberg and Hauge (2011) note that collaborative process can be on a spectrum from teacher-driven scenarios to ones where the students set their own context and develop their own understanding of how the collaborative work will be carried out. In hindsight, it is relatively clear the spectrum that Olofsson, Lindberg and Hauge (2011) discuss will take time to traverse. This being the case, it is not unsurprising that students didn't show signs of taking control of their collaboration and the CoP at large as they were still building the base skills needed to function at the teacher-driven end of the spectrum.

Boud and Cohen (2013) note the importance of clearly articulating the educational reasoning for peer to peer learning to students before implementing a program. The findings suggested that the educational benefits were clearly understood by the students, however, (and again in hindsight) explaining both the benefits of peer to peer learning and collaboration in an online CoP along with also espousing the benefits of having it student-driven, most likely resulted in information overload for the students. So, whilst moving towards a student-driven CoP is clearly important

(and this will be picked up on later in this chapter), greater time might need to be spent establishing the students at the teacher-driven end of the collaboration spectrum first.

This 'information overload' is perhaps symptomatic of the significant pedagogical change I was attempting in this research project—one that aimed to move from teacher-centred instruction to student-led collaborative learning. Building student capacity to be active engagers in peer to peer learning and collaboration is key for its success in a formal education setting (Lebler, 2007; 2008; Hanken, 2016; Boud and Cohen, 2013; Valle et al, 2016; and Cremata and Powell, 2017) and a large part of being successful in this endeavour hinges on pedagogical design (Deng and Taveres, 2013). Indeed, if the implementation of peer to peer learning and collaboration is not planned carefully (and the appropriate skills built within the students), the effect on learning may be negative with some learners possibly missing out completely on learning opportunities (Boud and Cohen, 2013). The findings don't suggest that students have missed out on learning, thus offering evidence that implementation was at least partially successful, however, they also clearly suggest there is still work to be done in the area of building student capacity to be active participants in peer to peer learning and collaboration.

Opportunities for peer to peer learning and collaboration and the benefits

As detailed in the Introduction Chapter, opportunities for peer to peer learning and collaboration within my classroom before this research project were not common and the findings confirmed that this view was also held by the students. Waldron (2013) offers that when students post videos of their own work, other's may more easily understand their musical intent, which in turn encourages them to become involved in an open discourse centred on their learning needs. The findings of this study showed the beginnings of this effect—as the students engaged in the online CoP their understanding of what other class member's musical background and expertise was grew, which in turn encouraged greater discourse both in the online space and in the classroom. Whether or not there were examples of truly 'open discourse' is, however, debatable and this will be discussed in due course.

Participating in an online CoP, along with uploading videos of one's own work, also affords music students several other opportunities: the ability to comment on others work, discussing and recommending music, and engaging in joint projects. All of these allow greater opportunity for peer to peer learning and collaboration (Salavuo, 2008; Waldron 2009; 2012; 2013; Partti and Sidsel 2010; Kenny 2013). The findings of this study have largely confirmed this to be the case in my classroom. Kenny (2013) also notes that one of the key advantages of learning through an online space over a traditional one is that the learning pace can be dictated by the learners, with the ability for learners to return and review content as needed. Students in this study affirmed this, identifying the ability to return and review videos and content on the online CoP as a key advantage over traditional classroom instruction.

The outcome of engaging in the activities associated with online music CoP (such as posting, commenting etc) can facilitate the shift to student-led learning which in turn fosters an increase in student agency (Salavuo, 2008; Waldron, 2009; 2012; 2013; Partti and Sidsel, 2010; Kenny 2013; Ruokonen and Ruismäki, 2016). This increase in student-led learning, and by extension, student agency was observed during the course of this study. It is worth while noting here, however, that whilst there was an increase in student-led learning, this learning was still within a framework and context provided by the teacher rather than being largely student-driven, thus existing at the 'lower' end of the collaboration spectrum described by Olofsson, Lindberg and Hauge (2011).

Another finding, however, was that whilst students nominated the benefits of engaging in the peer to peer learning process (and thus experienced greater student agency), survey data suggested that they didn't always take this opportunity (as evidenced by the fact that they didn't always read comments that were left for them). The ability to make improvements based on this peer feedback is a key skill that students need to have if they are to reap the benefits of peer to peer learning (Valle et al, 2016). The findings suggest that the students clearly felt that their own practice had been improved by the feedback of others. This being the case, it asks the question why students didn't always take the opportunity to read comments left for them in the online CoP. There are multiple possible explanations for this. Some may

relate to the functionality of the community or access to it (for example students may not have had immediate access to view comments on their post when they received notification that a comment had been made and then forget to check it later). Another possible explanation is that students are still learning the value of others' comments. Whilst the value of peer learning had been explained to them, perhaps there is an element of the 'proof is in the pudding'. As students experience benefits from peer to peer learning it would seem logical that they would then more actively seek to involve themselves in the process.

Another finding was that the increase in peer to peer learning and collaboration was largely observed to take place specifically in the realm of practical work, and less so in written work that was based in analysis and musicology. However, there was evidence in the findings that whilst students hadn't obviously collaborated extensively on written work such as the research task described in the Findings Chapter, they did see the value of being able to see what each other were doing in non-practical work contexts. Waldron (2013) noted that people who engage with informal online CoP did not undertake all their learning within that CoP and that they still engaged in offline learning activities. Whilst in the case Waldron (2013) was studying, most of the online CoP were geographically separated (unlike the online CoP based in my classroom), there were still times that they would arrange 'meetups' offline in order to play music and interact in the 'real world'. The same effect, all be it in a more localised setting, was observed in my classroom in that greater offline interactions took place because of the online interactions students were engaging in. Whilst Waldron's (2013) observations around 'offline' interactions largely address practical music making, the same premise perhaps may apply to other musical discussions. Thus, it may be the case that whilst no obvious collaboration took place online in the CoP around non-practical music work, the initial online discussion may have facilitated greater discussion around these matters in an offline setting, and the findings (in particularly, student comment from the focus group) support this as being the case.

Level and quality of discourse

It was found during the course of this study that whilst students experienced greater opportunities for peer to peer learning and collaboration via the engagement with an online CoP, the discourse observed in that CoP didn't tend to feature a lot of 'back and forth' or in depth exchanging of ideas. Waldon (2013) notes that this discourse when occurring in a CoP can become centred around students learning needs. This discourse has the power to foster a situation that Boud and Cohen (2013) describe: that peer learning is at its most useful when knowledge, ideas, and experience are shared between participants, with these participants becoming interdependent on each other and engage in mutual learning. Whilst I believe that all students have learnt something from each other by engaging in peer to peer learning, it is difficult to point to examples of truly, interdependent learning that have resulted from this study.

In the findings it was presented that students don't always read the comments that are left for them by others. As discussed above, somewhat paradoxically, they do see the value of these comments when they do read them. Wenger, White, and Smith (2009) note that participants will experience learning through a CoP in different ways, and one way nominated by the students was in the ability to return to the CoP at will and reread content. It is therefore possible that whilst students may not have replied to comments and questions, if they had indeed read them, they may have still been of value to that learner (and possibly other learners in the community too). Indeed, the fact the students nominated the ability to return to the community and reread content would suggest that some of the unanswered questions were effective in challenging their thinking. However, without this being documented as a 'back and forth' discussion between learners within the CoP (via students replying to comments and explaining their thinking when challenged), the knowledge built becomes localised to the individual students only and not the whole community.

This lack of documenting deeper student thinking inhibited the possibility of the discourse becoming more robust. Such robust discourse may in fact lead to disagreements between members. Wenger, White, and Smith (2009) offer that as well as a challenge such disagreements may also be a resource for the community. This is because the potential to learn from such disagreements is high, however, for

this to happen a “subtle, paradoxical dance” (p.58) must be undertaken. Indeed, such disagreements might be considered (providing the discussion remains focused and objective) good indicators of the quality and depth of discussion that takes place within a community (and hence the quality of learning that within the community). The findings found little evidence of such depth and quality of discussion within the community studied, however, this is most likely symptomatic of the community still being in its infancy and still be largely teacher-driven.

Students as ‘experts’

Reid and Duke (2015) note that through engaging with peer to peer learning, learners can become "expert students". Within this study, a key finding was that the students struggled with the idea that their knowledge was legitimate and that they could truly be ‘expert students’. Whilst Lebler (2007, 2008) and Reid and Duke (2015) have observed the potential for students to become effective peer learners, Searby and Ewers (1997) in their study of peer learning in a tertiary music course found a similar problem as I observed during this study with secondary students—that students did not feel ‘qualified’ to assess their peers work. As discussed above, and as nominated by Ertmer et al (2010), teacher modelling of commenting may provide one path forward here and it was found in this study that as students practiced ‘good’ commenting their confidence in providing feedback grew.

Waldron (2013) does note that there can be problems with the idea that any one piece of advice is as legitimate as any other, which is at the heart of the concerns raised by the students: what happens if their is advice is considered as being ‘correct’ by the recipient even when it is ‘wrong’. Waldron (2013) does note that offline activities and interactions with teachers and experts often give students the additional context needed to make valued judgements about the quality of advice they are given online.

The observed lack of confidence in providing feedback is perhaps one reason that students also failed to recognise the learning undertaken by offering feedback to others (or, the learning they undertook by taking on the ‘expert’ role). Ertmer (2007) notes that one of the key benefits in peer to peer learning is not the receiving of

feedback, but the giving of feedback. Chong (2011) found that music students who actively engaged in commenting on others work were forced to engage in critical thinking and analysis. In the findings it was suggested that the student perception was that the teacher had clearly explained the various ways that they might learn whilst using the CoP. This included the teacher detailing how they might learn by offering others feedback. However, the students consistently nominated the learning that was facilitated by others as their main method of learning within the CoP. Thus, it is clear that the teacher needs to ensure that keeping the value of providing feedback prominent in students minds if they are to start to recognise the value of the learning that occurs through that mechanism as well. This also has the added benefit of encouraging greater contribution and hopefully more of the 'back and forth' as discussed above in 'level and quality of discourse'.

Of course, the lack of confidence evident of students in some of the areas presented above is perhaps symptomatic of students starting down a path towards being 'expert students' rather than being at the destination. When students take time to reflect on the fact that many acknowledged the value in the peer learning they undertook when another student was instructing them, perhaps their own confidence in offering feedback and engaging in discussion around that feedback will grow. This may then lead to more robust, in-depth discussions where true interdependent learning takes place, and a more significant shift in student agency will be experienced. Developing students understanding of ako might also offer a meaningful path forward in this area—if they recognise that at one time, they can be both the student and the teacher, and that both roles bring relevant knowledge to the table, they will start to see growth in the area of being 'expert students'.

Engagement with the community and frequency of use, student ownership and the need for a larger community

As presented in the findings, students visited the online CoP relatively regularly (all nominating at least once a week), however, they also significantly overestimated how often they posted and commented. The overestimation of how many times content was created via the way of a new post or a comment may be down to a simple miscalculation on the students' part—given that students where observed to

be using the community in class time at least once a week, it is possible they have mistaken the amount of content they have generated, despite the amount of time they may have spent reading content by others. Regardless, during the course of the research period, the creation of ‘artefacts’ as described by Wenger, McDermott and Snyder, (2002) in the form of videos and discussion threads, was observed and are indication that the community, all be in its infancy, is showing some promise (even if the rate at which these ‘artefacts’ were being created was relatively slow.)

Thus, the question of how to keep the online CoP growing becomes very important and must be carefully considered when planning for its future. Wenger, McDermott and Snyder (2002) note that cultivating a successful CoP is never easy and is in fact a complex achievement with many barriers to be overcome, something that is both apparent in the findings of this study and also an important consideration moving forward. What level of engagement and participation is required for the online CoP studied in this research to sustain itself is at this stage an open question. It was clear in the findings that pedagogical design played a large part in driving students to use the community (as evidenced by students’ acknowledgment that they would most often use the community in in-class tasks and when directed to by the teacher). However, it is my view that the community would best thrive (and thus sustain itself) if the students were to take full ownership of it, setting the direction of discussion themselves. It was discussed under ‘pedagogical change and building community participation through teacher modelling’ that attempts to model this were ineffective and that this was perhaps due to trying to move the community too far down the student-driven spectrum too quickly. Regardless, moving forward, it is worth asking the question of how this move towards the student-driven end of the continuum (from teacher-driven to student-driven) might take place.

Malinen (2015) notes that encouraging a level of participation that will produce a thriving community with varied content is a challenge many communities face, and without sufficient participation and engagement in the community, the community fails. Thus, it would seem foolhardy to simply throw the community over to the students without some stewardship or other interventions. Lebler (2007) affirms this, proposing that that the role of the teacher in peer to peer learning is not reduced, but

the focus must shift to one of providing governance and maintenance of the community as well as being a broader, active member of the community.

One possible intervention is to consider the issue of creating more varied content in order to engage students across a wider range of topics. Creating such varied content relies on the distributed knowledge, expertise, and cognitive diversity (Salavuo 2008). Of the studies on online music CoP referenced in the literature review in this study, all focused on communities that were significantly bigger than the one presented in this study (some by the order of 100 if not 1000 in magnitude). Thus, by extension, a larger cognitive diversity must be available to those communities than the one in my classroom. Building an online CoP of that size that still remains centred in the context of senior music classes in the New Zealand secondary school is unlikely. Still, the question of how many more members might generate a 'large enough' cognitive diversity that would allow the community to thrive by itself and become driven by students is one worth exploring. As presented in the findings, the students themselves were quick to nominate in the focus group discussion how useful it would be to have other schools involved—a relatively obvious path to increasing the cognitive diversity of the community.

Simply adding new members to a community does not, however, ensure active participation from those members. Student motivation to be active participants in CoP is largely affected by their own knowledge of the content being discussed—with greater familiarity came greater willingness to participate (Deng et al, 2013). This was not a significant factor during this study as the majority of students shared similar knowledge and the context of learning in the popular genre of music. One student (Student F), however, who came from a classical background did nominate in the focus group that they felt more uneasy about offering feedback as they were unfamiliar with the style and instruments of the popular musicians, confirming Deng et al's (2013) premise. It would be logical that an increase in member numbers would also mean a greater diversity of knowledge brought of a range of areas. The on-flow effect of this would likely be a greater breadth of content being discussed, allowing all members to find discussions that they felt they could contribute to.

Research also suggests the role of interpersonal relations needs to be considered carefully when seeking increased contribution to online communities, particularly in the early stage of the community, where relationships must be nurtured (Wenger, McDermott and Snyder, 2002). Deng et al (2013) observed that the personal relationships between students was a prime motivator in contribution in CoP whilst Ma and Yuen (2011) concluded that forming and maintenance of social bonds between students is an important component in building online knowledge sharing behaviour. Whilst I would suggest that the interpersonal relationships were strong with the online CoP in this study (largely due to the strength of the positive offline relationships these students had), it may have also been a stumbling block. When students took on the role of 'experts', asides from worrying about whether they could provide sound advice, they were also concerned about giving feedback that was harsh or negative. Here, one might conclude that there was concern that by giving criticism they may in fact damage the interpersonal relationships that they had. One might also argue, however, that a strong relationship should sustain constructive criticism. Indeed, some students (particularly those who nominated they grew in confidence being the 'expert' during the research period) most likely found that to be the case. All of these issues relating to relationships will need to be addressed again if the community is to expand and include new members from other schools, thus careful monitoring of these matters will be needed if that path is taken.

Google Plus: a suitable social media forum for an online community of practice?

Albert (2015) offers that "a community of practice constitutes a type of learning community to which social media is particularly conducive." (p.31). This view has been affirmed by Salavuo (2008) who offers that social networking platforms have become a place where musicians can learn reciprocally. Within this study, from the teacher's perspective, Google Plus was largely a successful host for an online CoP, with the ability to successfully host videos, display discussion threads and allow students instant access along with the conveniences offered by social media such as mobile notifications. Wenger, White and Smith (2009) note that choosing the correct 'digital habitat' is of particular importance for growing a successful CoP, and in many ways, Google Plus met the terms of an appropriate and functional 'digital habitat'.

Students indicated in the questionnaire that they were using Google Plus' social media functions such as notifications and also nominated the same strengths that I observed—the ability to post videos and create discussion threads in a private community were all noted as being strengths of the digital habitat they found themselves in. Students, however, nominated that Google Plus was not a popular social media platform, and thus they also had negative views about using it as the habitat for the online CoP. One student indicated that they thought a Facebook group would be a better alternative, as most students were active on Facebook.

Manca and Ranieri (2013) noted that some students do not feel comfortable with Facebook as a learning tool, as they consider it to be informal and not a tool designed for teaching. This did not seem to be the case for my students, and indeed other research around Facebook as an educational tool does show that many students are engaging with it for this purpose as part of their educational experience (Aaen, 2016; Deng & Tavares 2013, Deng & Tavares, 2015). However, Fewkes and McCabe (2012) found that a prime challenge with Facebook usage in a secondary education setting was that students could easily be distracted by its social functions. The fact that students would more likely be active on Facebook as a social media site than Google Plus may make this a problem if the CoP was moved from Google Plus to Facebook. However, one might consider that if the aim is to have a student-driven CoP, the students having positive engagement with the platform is essential.

Albert (2015) noted that teachers have various barriers that have stopped them from employing social media in the classroom, many of which centre around concerns relating to privacy, inappropriate usage, and cyberbullying. Potentially these issues may be more of an issue for teachers who look to use Facebook as their platform, as teachers are probably more likely to maintain an active personal Facebook account (where active includes regular posting) than an active personal Google Plus account. Thus, the concern may be that if teachers set up a Facebook group, issues with how they manage the group and the potential overlap with their personal account may be at the forefront of their mind. However, one could argue that these concerns could be addressed by the appropriate privacy settings on their personal accounts and making it clear that they will not accept 'friend requests' or 'private messages' from students and all communication must be done publicly through the Facebook group

page. From a perspective of practicality, using Facebook may be difficult for some schools—in the school I work at it is blocked on student accounts whilst Google Plus is accessible which made Google Plus an easier logistical choice. This was also coupled with the fact that all students had Google accounts, and thus could easily activate a Google Plus account with that login. Facebook may have required some students creating Facebook accounts if they didn't already have one, which may have also been a logistical hurdle to overcome. Regardless, whilst Google Plus in many ways has been successful in fostering opportunities for peer to peer learning and collaboration, Facebook is likely to be of equal utility (providing any limitations around access could be solved), and in this study it would seem the students would have preferred that option.

Limitations

There are several limitations that were inherit in the findings presented in this study. Firstly, this research project was conducted at a small school, with a small number of research participants. The result of this is that the findings presented in this study are uniquely specific both to the small school and the small number of students, making it impossible to generalise the findings in a way that might make them specifically applicable to other teachers in different contexts.

A second limitation encountered in this study was it was conducted when the online CoP being studied was in its infancy. This means that whilst this study provides useful commentary on how students in this study experienced the implementation and first stages of participation in this CoP, it didn't allow the study of an established, thriving community. The gains observed in the areas of peer to peer learning and collaboration experience in this study, whilst apparent, might be best viewed as incremental. It would have been interesting to see the results of a study on a community that had been established for a longer period of time in order to see what gains might be made in these areas over a longer period.

A third limitation is that several potential participants left during the course of the year. Whilst the remaining students in the class all enrolled as participants, it would've been useful to have the voice of those students who left. Whilst those

students left school for a variety of reasons, of which it is not for me to speculate on, it is possible some left because of a disengagement with schooling—thus their voice and perception around this project would've been particularly valuable.

Another possible limitation encountered in this study was the closeness of the researcher to the participants. Whilst every effort was made to allow students to give their opinions freely and confidentially, it is difficult to say what effect the pre-existing relationship with the teacher may have had on how candid they were in the focus group discussions and the electronic questionnaire.

Recommendations

The recommendations presented here are derived from the knowledge built from the study of small school with a limited number of research participants. Regardless, they may be of interest to other music teachers in New Zealand secondary schools who wish to explore a similar model to the one researched in this study. The recommendations have been broken into two categories. The first addresses future directions for myself as the practitioner. However, these recommendations may be applicable to others who have already started experimenting with the online CoP model and are asking 'where to next?' The second set of recommendations are for the music teacher who wishes to start their journey of employing this model within their own classroom.

Recommendations for the practitioner

1. Continue fostering the community of practice into the future. This study has revealed that there is clear potential in the online CoP model to increase peer to peer learning and collaboration within my classroom. This potential, however, is only in the beginning stages of being realised. If the goal of such CoP is to allow students to experience true agency where they can construct knowledge together around their own nominated interests, students have only taken a few steps down what may prove to be a long path. It is, therefore, imperative that the gains identified in this study are built on through further exploration of the model so that the students can continue along this journey. Thus, for myself as a practitioner, the onus is on myself to continue this

research process, all be it informally, as I move into next year and beyond in order to grow the community towards one that is truly student-driven.

2. Involve a wider range of participants, such as students from other schools. One such way that the community may be built towards this goal is by the incorporation of other schools to diversify the user base and thus the amount of expertise available. Originally, it was a goal to involve other schools in this project from the outset, however, it proved to be particularly difficult. Despite approaching several schools that were located closely geographically, only one of those schools enrolled students in the community. Unfortunately, those students remained inactive participants in the community. The net was cast wider, with the community and the research advertised on several New Zealand music teacher mailing lists. This did generate some small interest from teachers around New Zealand, however, none followed through with joining their class with the community. It is hoped moving forward that this research, and the lessons learned, might form the basis of a coherent argument as to the values of participations in such communities. In addition to this, the work I have done as part of this study around building student capacity to participate in such communities has resulted in the generation of unit plans (of which have been tweaked after considering the lesson learnt). The sharing of these unit plans, along with the evidence around the potential for such a community might make it a more ‘saleable’ proposition for other teachers and be a catalyst for them taking the step of joining our community.

3. Provide and discuss this thesis to the board of trustees and members of the local iwi. As discussed in the introduction, there exists an opportunity for a true bi-cultural approach in high level strategic planning. The outcomes of this research suggest that there are clear gains to be made in peer to peer learning and collaboration via the approaches of online community of practice in a music context. Iwi and the board of trustees may therefore look to come together collaboratively and think about how this might inform future strategic directions.

Recommendations for teachers looking to explore the CoP in their own settings

1. Consider the platform you use carefully and make an informed choice. If teachers are looking to experiment with the online CoP model in their own classrooms, time must be taken to carefully weigh what platform will be an appropriate forum for that online CoP. In many ways, this is perhaps the most crucial step as if a mistake is made here it may be very difficult to amend. This study revealed that it was not only functionality of potential platforms but also the students' perception of the social 'value' of that platform affected their ability to engage with it. Google Plus and Facebook provide two possibilities (amongst several) that may be worth exploring. Of these two, students indicated that Facebook may have been a more popular choice. Having made that observation, students are probably more active on other social media such as Instagram and Snap Chat than on Facebook, but neither of the aforementioned platforms are likely to offer enough of the functionality required to sustain an online music CoP.

   Whilst considering students views on what social media platform is the most familiar, it also poses a problem—that social media usage trends can change rapidly. If we are constantly looking to appease students by working with the latest social media trend, it will mean constantly migrating and reinventing CoP into new platforms, which is unlikely to be successful. The rate of change of social media is also likely to drive the concerns that Albert (2015) nominates as being barriers to music teachers employing it into their classrooms. Teachers need time to absorb and review the learning potential of each social media site and gauge the likelihood for experiencing the issues outlined by Albert. Ultimately, teachers will want to 'know' and feel comfortable with the platform before employing it in class and if the rate of change in social media is faster than the speed of which teachers can build this level of comfort, then it is unlikely they will invest the time investigating the potential of social media at all. Thus, I'd argue that it is pertinent that teachers, if they wish to employ social media in music education (in order to reap some

of the benefits outlined), need to make a (careful and informed) decision about the platform and then stick to it.

2. The move to a collaborative student-centred model of learning requires a significant pedagogical change. Thus, consideration must be given to students' prior knowledge and experiences of collaboration and peer to peer learning. Most students will need to be scaffolded into these models with a range of tasks that might build their ability to participate. If students are asked to engage with peer to peer learning and collaboration without the pre-requisite skills needed, students are not likely to experience the benefits in learning that are offered by these models.

3. Teachers need to carefully consider how they will introduce the community to their class and what tasks they will use in this introduction. Simply creating a platform and inviting students to 'use' it is not likely to end in success—rather, teachers will need meticulously designed tasks to engage students into the community and build their capacity to participate in it.

4. Consider the issue of diversity of knowledge and expertise. Teachers need to consider whether the diversity of these aspects found within their classroom will be enough to sustain and grow a CoP. Schools with large music departments may be able to effectively cultivate a CoP entirely from their own student base, whereas smaller schools will most likely experience more benefits if they look to involve several other schools.

Conclusion

This study set out to understand how the community of practice model might be employed in the senior music class of a small, rurally located school, and how the use of this model might affect student learning. To guide this study, the following three research questions were employed:

1. How might participating in an online community of practice encourage collaboration and peer to peer learning for secondary school music students in remotely located secondary schools?
2. What are students' perceptions of the implications on their learning in using a community of practice model?
3. How might I build my students' capacity to participate in online communities of practice as part of their music education experience?

We shall now consider how this study has shed light on the issues raised by these questions and offer summarised answers.

How might participating in an online community of practice encourage collaboration and peer to peer learning for secondary school music students in remotely located secondary schools?

The literature presented in the literature review suggested that peer to peer learning and collaboration were effective tools for musicians, and that there are plenty of examples of this model being employed successfully in informal music education settings, particularly those based in online CoP, but few within a formal music setting. As outlined in the Introduction Chapter, one challenge that I have faced is students in my class often silo themselves off from each other and do not engage in peer to peer learning or collaboration and have little knowledge of each other as musicians. The implementation of an online CoP was a possible solution to this challenge that was explored within this study. It was found that implementation of an online CoP within my classroom created greater opportunities for peer to peer learning and collaboration to take place. This was affirmed by observational evidence, questionnaire data and student voice collected via a focus group. A direct result of this was that the walls of these silos were broken down, with students becoming much more aware of what each other's musical interests and strengths were.

The opportunities created for peer to peer learning and collaboration via the online CoP were largely generated by the teacher via teacher-driven tasks and contexts. These opportunities included peer to peer learning via feedback and critique on each other's practical work, and the opportunity to collaborate on music analysis and

research tasks. It was observed that students took the opportunities centred around practical work more readily than those centred around analysis or research.

Usage statistics gathered in the questionnaire indicated that students were visiting the community regularly, however, it was more likely to occur when they were directed to by the teacher during class than in the students' own time. Over the course of the research project, students consistently generated new content in the CoP, via creating posts and commenting on each other works, creating digital 'artefacts' representing their shared knowledge. It was observed, however, that the rate of generation of this content would have appeared to be at a pace that was perhaps slower than might be expected. The students themselves didn't seem to recognise this, with questionnaire data indicating that they clearly overestimated the amount of content they had generated during the research period. It may be the case that when asked to reflect on this, students may have concluded that they spent a lot of time participating in the online CoP (all participants nominated there were on the community once a week or more) therefore they must have created a lot of content (without taking the time to actually carefully quantify what content they had created). The time spent online in the CoP without creating new content very well may still have resulted in meaningful learning for the students. Indeed, some noted in the focus group discussions that the ability to return and re-read comments to clarify their understanding was a particular advantage.

What are students' perceptions of the implications on their learning in using a community of practice model?

One theme present in the literature review was that students may experience an increase in agency by gaining greater control over the direction of their own learning through participation in an online CoP (Kenny 2013; Partti and Sidsel 2010; Ruokonen and Ruismäki, 2016; Salavuo, 2008; Waldron, 2009; 2012; 2013). Within this study, an increase in agency was observed in that students took on the role of leading their learning via peer to peer learning and collaboration. However, this student-led learning remained within the context of teacher assigned tasks. This being said, students nominated both in questionnaire data and in the focus group that engaging in peer to peer learning had helped their own learning and made them better musicians.

Students, whilst acknowledging that peer feedback had directly influenced and aided their own practice, were not always willing to actively seek out that feedback (as evidenced by questionnaire results). There were several possible reasons for this. The first may be one simply built out of time—students may receive a notification that someone has provided feedback on their work but if they didn't have the time to check the comment, it may have then been forgotten. Questionnaire data did indicate that students were using mobile notifications to receive updates on the forum, but it would often take them sometime to follow up on these notifications.

The other issue that was revealed was that students were generally uncomfortable in being seen as 'experts' in the classroom. Many feared that the advice they would give others might be misconstrued as a personal attack or being too harsh, or, that they simply would give the wrong advice and thus do the other student a disservice. Whilst it was not directly explored in the course of the research, and thus there is no hard evidence, it is possible that these feelings of distrust in their own ability may have led students to also distrust others feedback. This may also offer another explanation as to why they didn't always read comments left on their own work.

This lack of confidence in their own ability to be 'experts' may also explain why many students failed to recognise the learning that took place by becoming the 'expert'. When asked if providing feedback to other students had aided their own learning, the majority neither agreed nor disagreed. In order for students to move beyond a simple peer feedback model into one where a more open discourse takes place, which would lead to a greater standard of collaboration, students need to give themselves and their opinions more readily. The confidence to do this is the key element in this, but the understanding that learning is taking place by engaging in the process may be the catalyst to build that confidence. Indeed, it was observed that some students did grow in confidence in this area throughout the research process, and this was affirmed by participants in the focus group who noted that the more they engaged in the process the more their confidence grew. An exploration of the concept of ako may prove beneficial with the students here—within the concept of ako students bring their own relevant knowledge that positions them both as a learner and a teacher.

How might I build my students' capacity to participate in online communities of practice as part of their music education experience?

Within this research project, several methods were implemented to build student capacity to participate within an online CoP. Questionnaire data indicated that participants in the majority agreed or strongly agreed that the teacher had clearly explained the purpose of engaging in an online CoP to them—a suitable starting point to build from.

Participants indicated that, in general, I was successful in modelling ways to successfully engage in active participation within the community. This was most evident in students acknowledging that by commenting on all discussion and modelling good feedback I had provided an example of both active participation and also ways that the students approach offering feedback themselves.

Of less success were attempts to model behaviour that might lead to the CoP becoming more student-driven. In an attempt to show students that creating content in the community did not have to be limited to in-class tasks, I created several posts that explored either their own musical interest or things that they had found musically interesting or that they felt was worth sharing. The desire here was to encourage students to do the same—to post about what was going on in their musical lives in a more organic fashion outside the realm of teacher-driven tasks. The findings suggested that there was an increase in student agency experienced via the peer to peer learning opportunities offered by engaging with the online CoP. However, this increase may be considered incremental and in order for students to experience the more radical increase in agency described in some of the literature (Kenny 2013; Partti and Sidsel 2010; Ruokonen and Ruismäki, 2016; Salavuo, 2008; Waldron, 2009; 2012; 2013), they needed to drive the community and its direction themselves. In hindsight, attempting to push the community to be more student-driven one may have been too optimistic given that the community was in its infancy and students were still coming to grips with the peer to peer and collaboration models within a teacher-driven context—simply focusing on involving students in the peer to peer and collaboration model through scaffolding and tasks proved to be a more realistic achievement.

Still, the move to a student-driven peer to peer learning culture might be considered the aspirational next step, but it is not one that can be taken without careful consideration of where the path may lead. The balance between teacher led learning and student-driven peer to peer learning is a complex one that requires the consideration of many social and ethical issues (Partti and Sidsel, 2010). One such issue is the importance of weighing the advantages of peer directed learning against the disadvantages of the teacher 'standing back' (Partti and Sidsel, 2010), and this balance will need to be carefully considered and monitored.

Closing Remarks

This research project was borne out of the desire to explore a challenge area within my own practice—the perception that my students do not spend enough time working with each other collaboratively to grow themselves as musicians. The research process has been one that has confirmed some of my hunches but also challenged many of my preconceived notions as well. Ultimately, the desire has been to achieve better outcomes for the students in my class and I feel that the journey I have been on through the course of this research study has set me on a pathway to achieving that outcome. Whilst I am happy to continue walking this path alone, I feel that the greatest benefit will come if others were willing to walk this path with me. If you would like more information on how participating in an online community of practice might benefit your students, be it one that you are looking to setup yourself, or if you'd like to join with my students in our existing one, you are welcome to email me on timshawcross@westlandhigh.school.nz

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APPENDIX A

Participant Information (over 16 years of age)

Information for participants

Research Project Title

Online communities of practice in the secondary music classroom: A tool for increased collaboration and peer to peer learning?

What I'm doing

I'm undertaking a research project that will look at how using an online community might make it possible for you to have greater opportunities to collaborate and learn more from each other. The main purpose of this project is to look at how this approach might be used in our classroom, and what effects it has on your learning.

What it will mean for you

You will be invited to fill in an anonymous online questionnaire using Google Forms. By completing this questionnaire you are giving the researcher consent for the information provided to be used in the research project. Any information given in the questionnaire that could identify you will be removed by the researcher.

You may also volunteer to be part of a focus group where you will explore your experiences using an online community as part of your music class. If you volunteer, you will be contacted in person at school or via email to arrange a suitable time for participation in this focus group. The focus group will last between 30 and 40 minutes and will be conducted by a third party (other than the researcher) in order to ensure your confidentiality. These focus groups will be recorded (audio only) by that third party and you will be provided with a written record of what was said to approve or amend. All identifying information will be removed from this written record and your identity will not be shared with anyone. This includes the researcher—your identity will be hidden from them by encoding (for example, your name might be changed to 'Student A') before the written records are made available to the researcher.

You may also volunteer to be observed as part of the research. In this case, the researcher will observe how you respond and engage with specific class tasks involving the use of the class' online community, along with analysing interactions (such as forum posts and comments) that occur within that community. Any material collected during observations will be encoded in a way to ensure that your identity is kept hidden.

If you agree to be part of a focus group and/or observed, your parent/guardian will be asked to sign a consent form if you are under 16 and you will be asked to sign an assent form. If you are over 16, you will be asked to sign a consent form. If you or your parent wish to withdraw from this project, you can. However, because of our schedule, any withdrawals must be done within 2 weeks after you have participated in the focus group.

Your name and information that may identify you will be kept completely confidential. All information collected from you will be stored on a password protected file and only myself as the researcher will have access to this information.

It is important, however, to understand that ensuring your complete confidentiality as a participant once the thesis is published is not guaranteed. New Zealand is a small country and the field being studied in this project is also relatively specialised. This means a reader of the completed work may be able to deduce participant identities without this being divulged within the thesis.

Please contact me if you need more information about the project: phone 755 6159 or email timshawcross@westlandhigh.school.nz

At any time if you have any concerns about the research project you can contact my supervisor:

My supervisor is Dr Jo Mane, phone 815-4321 ext. 7146 or email jmane@unitec.ac.nz

UREC REGISTRATION NUMBER: 2018-1029
This study has been approved by the UNITEC Research Ethics Committee from 18/7/18 to 18/7/19. If you have any complaints or reservations about the ethical conduct of this research, you may contact the Committee through the UREC Secretary (ph: 09 815-4321 ext 8551). Any issues you raise will be treated in confidence and investigated fully, and you will be informed of the outcome.

Participant Consent Form for Observation (over 16 years of age)

Participant Consent Form (Observation)

Research Project Title:

Online communities of practice in the secondary music classroom: A tool for increased collaboration and peer to peer learning?

I have had the research project explained to me and I have read and understand the information sheet given to me.

I understand that I don't have to be part of this research project. If I do decide to participate in the research, I understand that I may withdraw at any time.

I understand that everything I say or do when I'm observed in class is confidential. Nothing that the researcher writes down in these observations will identify me and they will be the only person who will know what I have said and done. I understand that anything I post online in the class' online community is also confidential. I also understand any information gathered by the researcher in the observation process will be stored securely, with password protection, on the researcher's computer and in the cloud for a period of 5 years.

I understand that I can request a copy of the final research document.

I have had time to consider everything and I give my consent to be a part of this project.

Participant Name: ……..

Participant Signature: …….. Date: ……

Project Researcher: …… Date: ……

UREC REGISTRATION NUMBER: 2018-1029
This study has been approved by the UNITEC Research Ethics Committee from 18/7/18 to 18/7/19. If you have any complaints or reservations about the ethical conduct of this research, you may contact the Committee through the UREC Secretary (ph: 09 815-4321 ext 8551). Any issues you raise will be treated in confidence and investigated fully, and you will be informed of the outcome.

Participant Consent Form for Focus Group (over 16 years of age)

Participant Consent Form (Focus Group)

Research Project Title:

Online communities of practice in the secondary music classroom: A tool for increased collaboration and peer to peer learning?

I have had the research project explained to me and I have read and understand the information sheet given to me.

I understand that I don't have to be part of this research project. If I do decide to participate in the research, I understand that I may withdraw at any time.

I understand that everything I say in the focus group is confidential and none of the information I give will identify me. The only person who will know what I have said will be the person who runs the focus group and the person who writes down what was said during the focus group discussion. The researcher will have access to this written record, but my name will be encoded first so that my identity is hidden. I also understand that all the information that I give will be stored securely, with password protection, on the researcher's computer and in the cloud for a period of 5 years.

I agree that the discussion that takes place in the focus group will be recorded (audio only).

I understand that I can request a copy of the final research document.

I have had time to consider everything and I give my consent to be a part of this project.

Participant Name: ……..

Participant Signature: …….. Date: ……

Project Researcher: …… Date: ……

UREC REGISTRATION NUMBER: 2018-1029
This study has been approved by the UNITEC Research Ethics Committee from 18/7/18 to 18/7/19. If you have any complaints or reservations about the ethical conduct of this research, you may contact the Committee through the UREC Secretary (ph: 09 815-4321 ext 8551). Any issues you raise will be treated in confidence and investigated fully, and you will be informed of the outcome.
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Participant Information and Consent/Assent Form (under 16 years of age)

Unitec Research Ethics Committee (UREC) Assent/Permission Form for Children Under the Age of 16

Project Title:
Online communities of practice in the secondary music classroom: A tool for increased collaboration and peer to peer learning?

Primary Investigator: Timothy Shawcross

I am doing a research study about how using online communities might aid learning in our senior music classroom. A research study is a way to learn more about people. If you decide that you want to be part of this study, you will be asked to complete and online questionnaire, be observed during class time and be part of a focus group.

There are some things about this study you should know. When you complete the questionnaire online, your responses will be anonymous, meaning the researcher will not know who has said what in their responses. When you are observed in class, the researcher will be looking at how you engage with tasks that require you to use our online community. The researcher will also look at the posts and comments you make in our online community. The researcher will not mention your name when using data created during these observations. You will also have the option of being part of a focus group. This focus group will be conducted by someone other than the researcher. What you say in this focus group will be written down. Before this information is passed to the researcher, your name will be removed so that your responses are anonymous.
I am doing this study because I think you may benefit from it. A benefit means that something good happens to you. I think these benefits might be that you might have more opportunities to collaborate and learn from other members of our class using an online community model.

When I'm finished with this study, I will write a report about what was learned. This report will not include your name or that you were in the study. You do not have to be in this study if you do not want to be. If you decide to stop after we begin, that's okay too.

Please circle if you would like to take part in this study

Yes

Please circle if you do not want to do this

No

Thank you for completing this form – please ask you parent/caregiver to sign below to show they feel that you understand what the research project is about and give this form back to your teacher at the centre tomorrow please:

……
(Signature of parent/caregiver)

……..
(Date)

(Participant to complete if able to do so)
Thank you for completing this form – Please sign below to show you feel that you understand what the research project is about and give this form back to your teacher at your centre/school tomorrow please:

……
(Signature of participant)
(Date)

Researcher Name: *(Please print)*

……

UREC REGISTRATION NUMBER: 2018-1029
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APPENDIX B

Electronic Questionnaire

Questionnaire: Our Online Music Community of Practice

* Required

Completion of this online survey indicates your consent for the researcher to combine this data with other respondents into a spreadsheet for analysis.

1. **On average, I view our online community of practice (viewing does not have to involve posting or commenting, but might involve reading others comments and posts or watching videos posted)** *

Mark only one oval.

- ◯ More than once a week
- ◯ Once a week
- ◯ Once a fortnight
- ◯ Once a month
- ◯ Hardly ever

2. **I view our community of practice** *

Mark only one oval.

- ◯ During class time only
- ◯ Mostly during class time, occasionally elsewhere (for example at home)
- ◯ Roughly half in class time and half out of class time
- ◯ Mostly outside of class time
- ◯ Only outside of class time

3. **I view or use our online community of practice (where using involves posting content or commenting)** *

Mark only one oval.

- ◯ Only when directed to by our teacher (for example as part of completing in-class tasks)
- ◯ Mostly when directed to by our teacher, sometimes by my own choice
- ◯ Roughly half as directed to by my teacher, half by my own choice
- ◯ Mostly by my own choice
- ◯ Only by my own choie

4. **On average, I post a new topic to our online community of practice** *

Mark only one oval.

- ◯ More than once a week
- ◯ Once a week
- ◯ Once a fortnight
- ◯ Once a month
- ◯ Hardly ever

5. **On average, I comment on a topic on our online community of practice** *
Mark only one oval.

- ◯ More than once a week
- ◯ Once a week
- ◯ Once a fortnight
- ◯ Once a month
- ◯ Hardly ever

6. **When my teacher adds to our community (as a new post), I read that material** *
Mark only one oval.

- ◯ Never
- ◯ Rarely
- ◯ Sometimes
- ◯ Often
- ◯ Always

7. **When someone comments on my post, I read it**
Mark only one oval.

- ◯ Never
- ◯ Rarely
- ◯ Sometimes
- ◯ Often
- ◯ Always

8. **I have Google notifications set up so that I receive an email when new posts are added to our online community** *
Mark only one oval.

- ◯ Yes
- ◯ No

9. **I have Google mobile notifications set up so that I receive an alert on my phone when new posts are added to our community** *
Mark only one oval.

- ◯ Yes
- ◯ No

10. **If you do receive notifications of new posts, you go to Google Plus to view the post**
Mark only one oval.

- ◯ Always
- ◯ Sometime
- ◯ Never

11. **If you often go to view a post after receiving a notification, you would (on average) view the post**
Mark only one oval.

- Within an hour of the notification
- Within a day of the notification
- Within a week of the notification

12. **Select on a scale of strongly disagree to strongly agree** *
Mark only one oval per row.

	Strongly Disagree	Disagree	Neither Agree or Disagree	Agree	Strongly Agree
My teacher has successfully explained the purpose of using our online community to me					
My teacher has clearly explained the ways in which I can use our online community to aid my learning					
Google Plus is a suitable forum for our online community					
I find Google Plus easy to use					
My teacher has successfully modeled ways to use our online community by posting and commenting themselves					
I'm confident in providing constructive feedback to others through comments					
I can use our online community confidently to aid my own learning					
I have had greater opportunities to collaborate with other class members by using our online community					
I have had greater opportunities to learn from other class members by using our online community					
Comments by other members on my posts have aided my learning					
Commenting on others posts has aided my own learning as well					

Focus Group Schedule

Focus Group Schedule

(The moderator will use this schedule as a guide but may choose to further explore certain areas with other follow-up questions and prompts in order to gain understanding of the participants experiences and viewpoints.)

1. Do you think your teacher has built your capacity to be an active member of the class' online community? If so, can you describe an example of how?

2. Can you describe an instance when your teacher has modelled active participation in the online community? Did this modelling aid you in becoming a more active participant?

3. Has using the class' online community allowed you to learn more from your classmates (peer learning) than what you have previously experienced in formal music education? How have you reached this conclusion?

4. Can you describe a time where you've provided feedback or taken the role as the 'teacher' to another classmate whilst using the class' online community?

5. How did taking on the role of the 'expert' or the 'teacher' in this situation change how you think about your own practice (or, how you approach being a musician)?

6. Would you say that the examples of peer learning that you observed in the class' online community fall mostly into a category of a 'teacher' providing feedback to a 'student'? (Where in this case the 'teacher' is another student). Or, can you think of examples where the relationship is a more reciprocal one (where participants are learning equally from each other)?

7. Do you think using the class' online community has had an effect on how often and how well you collaborate with your classmates?

8. Can you describe an example of collaboration that has occurred through the class' online community?

9. What benefits have you seen in your own learning through involvement in this collaboration?

10. How have you found using Google Plus as the forum for our class' online community? What would you consider to be its strengths and weaknesses?

APPENDIX C

Organisational Consent

WESTLAND HIGH SCHOOL
Te Kura Tuarua o Hokitika
EXPERIENCE SUCCESS TOGETHER
PIKI KOTAHI KI TE TAUMATA

Mr. Iain Murray **Principal, Westland High School**

To:
Tim Shawcross
12 Alpine View
Hokitika
7810

Dear Tim Shawcross,

RE: Organisational Consent

I Iain Murray, principal of Westland High School, acknowledge that Tim Shawcross sort and was given approval by myself and the Board of Trustees to undertake research at Westland High School as discussed with the researcher.

Ngā mihi nui,

Mr Iain Murray

Principal
Westland High School

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www.westlandhigh.school.nz | +64 3 755 6169 | 140 Hampden St, Hokitika 7810 1

APPENDIX D

Focus Group Moderator Confidentiality Form

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Institute of Technology
TE WHARE WĀNANGA O WAIRAKA

Confidentiality Agreement: Focus Group Moderator

Research Title:

Online communities of practice in the secondary music classroom: A tool for increased collaboration and peer to peer learning?

Researcher/s Name: Timothy Shawcross

Address:
12 Alpine View
Hokitika
7810

Phone number:
03 755 6470

Email:
timshawcross@westlandhigh.school.nz

I Madeline Campbell (full name - please print)
agree to treat in absolute confidence all information that I become aware of in the course of moderating focus groups with participants about the above research topic. I agree to respect the privacy of the focus group participants. I will not pass on in any form information regarding those focus groups to any person or institution. I will not retain or copy the audio file of the focus group session, or, any information involving the above project.

I am aware that I can be held legally liable for any breach of this confidentiality agreement, and for any harm incurred by individuals if I disclose identifiable information about the interviews that I have conducted.

Signature: ..... Date: 02 / 11 / 2018

UREC REGISTRATION NUMBER: 2018-1029
This study has been approved by the UNITEC Research Ethics Committee from (18/7/18) to (18/7/19). If you have any complaints or reservations about the ethical conduct of this research, you may contact the Committee through the UREC Secretary (ph: 09 815-4321 ext 8551). Any issues you raise will be treated in confidence and investigated fully, and you will be informed of the outcome.

26

Transcriber Non-Disclosure Agreement

Non-disclosure Agreement

By and between

Tim Shawcross ["Disclosing Party"]

and

Way With Words Limited ["Receiving Party"]

Whereas the Disclosing Party possesses valuable information and data of a secret and confidential nature and is willing to disclose the said information to the Receiving Party subject to certain conditions related to confidentiality, it is hereby agreed between the parties as follows:

1. In consideration for the disclosure by the Disclosing Party to the Receiving Party of any or all of the information as defined below in clause 2 ["Proprietary Information"], the Receiving Party hereby undertakes to treat such Proprietary Information as strictly confidential and not to disclose it, either in whole or in part to any third party, subject to the provisions of clauses 3 and 4 herein.

2. Proprietary Information means all content, data and information collected in interviews and contained in audio files which the Disclosing Party possesses.

3. The undertaking, as set out in clause 1, shall not apply to any of the Proprietary Information which:

   3.1 at the time of disclosure is published or otherwise generally available to the public;
   3.2 after disclosure by the Disclosing Party, is published, or becomes generally available to the public, otherwise than through any act or omission on the part of the Receiving Party;
   3.3 the Receiving Party can show was in its possession at the time of disclosure and was not acquired directly from the Disclosing Party;
   3.4 is rightfully acquired from others who did not obtain it under any pledge of secrecy to the Disclosing Party;
   3.5 is disclosed pursuant to a requirement by operation of law, regulation or court order.

4. The Receiving Party shall be entitled to disclose any or all of the Proprietary Information to such of its employees, agents and/or subcontractors as it, in its sole discretion, deems necessary, provided that the Receiving Party shall take all reasonable steps to ensure that such employees, agents and/or subcontractors treat the Proprietary Information as strictly confidential.

5. Immediately upon written request by the Disclosing Party at any time, the Receiving Party shall return to the Disclosing Party the Proprietary Information and any and all extracts thereof, save that where such Proprietary Information, or any part thereof, is in a form incapable of return or has been copied or transcribed into another document, it shall be destroyed or erased, as directed by the Disclosing Party.

1

6. This agreement commences on date of signature hereof and shall be binding upon the parties, their assigns and/or successors in title and remains in effect unless terminated under clause 8 hereunder or by agreement by the parties. Any termination by agreement shall be reduced to writing and signed by both parties.

7. This agreement shall not be construed in any manner to be an obligation to enter into any further contract between the parties.

8. In the event of the Receiving Party committing a breach of any of the terms of this agreement then the Disclosing Party shall be entitled, at its sole discretion, and without prejudice to any of its other rights, whether in terms of this agreement or in law, either to immediately terminate this agreement or to claim specific performance of the terms hereof.

9. This agreement constitutes the whole of the agreement between the parties relating to the matters dealt with herein. Save to the extent otherwise provided herein, no undertaking, representation, term or condition relating to the subject matter of this agreement and not incorporated in this agreement shall be binding on either of the parties.

10. No addition to or variation, deletion or agreed cancellation of all or any of the clauses or provisions of this agreement will be of any force or effect unless in writing and signed by the parties.

11. No waiver of any of the terms and conditions of this agreement will be binding or of any effect for any purpose unless in writing and signed by the party giving the same. Any such waiver will be effective only in the specific instance and for the purpose given.

12. This agreement shall be governed by the laws of England and Wales and is subject to the exclusive jurisdiction of the courts of England and Wales.

13. The persons signing this agreement in a representative capacity warrant their authority to do so and warrant that all necessary resolutions of the company/corporation to conclude this agreement have been tabled and passed and are binding upon the company/corporation.

Signed at 9.30pm on this 6th day of November 2018

T. Shawcross

For and on behalf of Disclosing Party

as Witness

Signed at Belville on this 6th day of November 2018

Swart

For and on behalf of Receiving Party

as Witness

Full name of author: Timothy Iestyn Michael Shawcross

ORCID number (Optional):

Full title of thesis/dissertation/research project ('the work'):

Online communities of practice in the secondary music classroom: A tool for increased collaboration and peer to peer learning?

Practice Pathway: CISC 9090

Degree: Masters of Applied Practice

Year of presentation: 2019

Principal Supervisor: Jo Mane

Associate Supervisor: Hayo Reinders

Permission to make open access
I agree to a digital copy of my final thesis/work being uploaded to the Unitec institutional repository and being made viewable worldwide.

Signature of author: 

Date: 26/2/19

Declaration

Name of candidate: Timothy Iestyn Michael Shawcross

This Thesis/Dissertation/Research Project **entitled:**
Online communities of practice in the secondary music classroom: A tool for increased collaboration and peer to peer learning?
is submitted in partial fulfillment for the requirements for the Unitec degree of

Masters of Applied Practice

Principal Supervisor: Jo Mane

Associate Supervisor/s: Hayo Reinders

CANDIDATE'S DECLARATION

I confirm that:

- This Thesis/Dissertation/Research Project represents my own work;
- The contribution of supervisors and others to this work was consistent with the Unitec Regulations and Policies.
- Research for this work has been conducted in accordance with the Unitec Research Ethics Committee Policy and Procedures, and has fulfilled any requirements set for this project by the Unitec Research Ethics Committee.
  Research Ethics Committee Approval Number: 2018-1029

Candidate Signature: T. Shawcross Date: 26/2/19

Student number: 1491180