

Chapter Ten

Conclusions and Implications

This chapter makes conclusions about the two research aims. These conclusions are drawn from the compositions submitted and commonalities and uniquenesses in teachers' engagements with the project material. They also consider the history and paths of individual teachers. Some conclusions are based on the written responses of teachers through the study's questionnaires while others are from my interpretation of their responses and the literature review chapters. Implications, drawn from the conclusions, are intended to provide information and heighten the resourcefulness of teachers of composition. Some may be self-evident and involve activities and strategies, 'tricks of the trade'¹, which teachers undertake frequently in their teaching while others may be new or need reconsideration by teachers in the contemporary classroom. These implications are also relevant for the education of primary and secondary teachers and in-service training. Implications are also made about using resources in, and designing resources for, the classroom. The final part of the chapter identifies issues for further research.

The reader is reminded that while conclusions are drawn from participating teachers whose number varies from one age group to another and at times is small, these teachers represent a nucleus drawn from a larger population who were offered, and expressed interest in, the material but who did not, for many different reasons, engage their students with the projects during the time period of the study. Where relevant, responses of these teachers have been included in the discussion (see Appendix 5B).

¹ Trick - "a clever or adroit expedient, device, or contrivance ... The novelist...knows the tricks of his trade" (1896) (Little, Fowler and Coulson 1973:2361)

10.1 Conclusions and implications for teachers

10.1.1 The first research aim

The first research aim, outlined in Chapter One, focused on the compositions submitted for the study. It sought development and expansion of concepts introduced in the projects of *The Pulse Music Album* on historical, educational and social grounds. What constitutes development and expansion of concepts for the purposes of this study is described in Chapter One.

Across the 9, 12, 15 and 18 year age groups some teachers, expanders, facilitated expansion and development of concepts presented in the album projects in some, occasionally all, compositions by their students and by themselves submitted for the study. Other teachers, developers, facilitated development but not expansion of concepts in submitted compositions (see Appendix 10 - Table 1.10 Compositions submitted by participating teachers). No teachers submitted compositions by students in the 6 year age group and conclusions drawn from this response are discussed later in the chapter.

Four compositions submitted by two teachers in the 9 year age group working with Phase Shifting, expanded structural aspects and were composed by the class with the teachers involved in the composing process. Expansion of construction, aural effect, metre, tempo, instrumentation and text and context also occurred. All teachers in the 9 year age group submitted compositions, a total of twenty, which developed construction (including process), pitch set, structure, harmony, intervals, rhythm, text and context and dynamics, the first two being most frequently developed. Four compositions recycled material. Pastiche development of a limited range of parameters was often found within compositions submitted by individual teachers. The range appeared to be determined by parameters within the project. The two expanders submitted compositions which represented the gamut of compositional stages, pastiche, development and expansion,

working with two or more projects. The two developers submitted compositions which pastiched and developed aspects of the Phase Shifting models.

From the compositions submitted from the 9 year age group I concluded that class composition with the teacher involved in the composing process produced expansion of the model material, especially of structural aspects; that individual teachers often enabled students to develop a limited range of aspects of the project models in their compositions rather than a wide range; and that expanders enabled their students to develop and expand aspects of the project models while developers enabled their students to write pastiche works or to develop some aspects of the project models but not expand any.

Six of the seven compositions submitted by four expanders with the 12 year age group expanded aspects of structure and one, construction through phrasing. Aspects of pitch through bitonality, timbre, time, instrumentation and dynamics were also expanded. Construction, rhythm and text were the most frequently developed parameters in the fifteen compositions submitted by all teachers except the composer-in-schools. Structure, harmony, pitch set, intervals, instrumentation, metre, pulse and rhythmic symmetry were also developed. Again these developments were often limited in range within the compositions submitted by individual teachers. In a similar pattern to that noted with teachers of the 9 year age group, compositions submitted by developers ranged from pastiche to development, or simplification to development.

From the compositions submitted by the 12 year age group I concluded that expanders with professional composing experience were able to facilitate holistic approaches to composition in a shorter period of time than those without this experience; that teachers often enabled students to develop a limited range of aspects of the project models in their compositions rather than a wide range; and that expanders enabled their students to develop and expand aspects of the project models while developers enabled their students to write pastiche works or to develop some aspects of the project models but not expand any, a pattern similar to that found with the younger age group.

Twenty-four compositions submitted by the 15 year age group expanded a wide range of parameters including structure (twelve compositions), construction (three), aspects of style and feel (eight), plus minimalist effect, harmonic parameters, melody, intervals, rhythmic layers, rhythm, tempi and pulse, dynamics, textural considerations, context and one recycled material. All teachers except two expanders submitted compositions which developed aspects of construction, metre, structure and rhythm, the most frequently developed parameters in the thirty-nine compositions, plus harmony, melody, mode and pitch set, instrumentation, tempo, pulse, context, dynamics, register and articulation. As with the two younger age groups, these developments were often limited in range within works submitted by individual teachers. Three teachers submitted compositions which represented pastiche writing, writing which developed, and writing which expanded, aspects of the project models. Compositions submitted by teachers personally experienced with composing were not represented by pastiche writing but expanded and/or developed aspects of the project models. This reflected the pattern of expansion and development of the 9 year age group.

From the compositions submitted from the 15 year age group I concluded that expanders enabled the expansion of aspects of the project models through a wider range of musical parameters than developers and all participating teachers with the younger age groups; that less successful teachers often enabled students to develop a limited range of aspects of the project models in their compositions rather than a wide range; and that the majority of expanders submitted compositions which represented the gamut of compositional outcomes – pastiche, development and expansion, while those personally experienced with composing submitted compositions which expanded and/or developed but did not closely pastiche the project models.

Of the sixty-six compositions submitted by the 18 year age group, nine expanded aspects of the project models including structure, construction, context, effect and tempo. All teachers, with one exception, submitted compositions which developed aspects of the

project models. Despite the large number of compositions submitted by four teachers, few parameters were developed, the most common being instrumentation and timbre, pitch set, mode, metre and rhythm with intervals, ostinato as pulse and dynamics and movement. A number of pieces recycled material and one simplified construction. The pattern established in the younger age groups was especially prominent in this age group with teachers submitting compositions which expanded and/or developed a limited range of parameters. Only those submitted by one expander, teaching at final year secondary level, developed a wider range of parameters. Two expanders, one working with primary teacher trainees, one at secondary level, submitted compositions which represented the full gamut of composition experience.

I concluded that teachers with the 18 year age group enabled students to expand a wider range of parameters, including structure, construction and effect, than expanders working with the younger age groups; that teachers enabled students to develop fewer parameters than was represented by the younger age groups and, as with the younger age groups, some expanders enabled their students to produce compositions which represented the full gamut of compositional outcomes.

Expanders engaging students from more than one study age group consistently enabled some students in all groups to expand aspects of the project models. One developer working with 9 and 12 year age groups enabled students in both groups to develop aspects of the project models. From this I concluded that teachers adopted a similar teaching role and approach with different age groups, reinforcing Hogg's (1994) finding discussed in Chapter Four.

Responding to the first research question, therefore, several compositions submitted for the study could be viewed as reflecting the historical expansion of compositional concepts and ideas in minimal music. This view is argued because the compositions were well-structured and well-constructed. They expanded and moved beyond ideas presented in the project models, were evaluated and presented holistically, being

performed and recorded with accuracy and strong aural effect. These pieces were drawn from all age groups.

Educationally, compositions which expanded and/or developed aspects of the project models represented evidence of a facility with, and exploration of, musical elements, some of which were new to students (and some teachers), some familiar. Fewer compositions which expanded aspects of the project models were submitted than those which only developed aspects. This supported the findings of Tichavsky (1989) and Burnard (1995b), discussed in Chapter Four, that a prescriptive task design produces compositions of overall similarity with isolated instances of divergence. However, the findings of my study did not support Tichavsky's statement that this approach to composition represented an adult experience which did not correspond with the child's mentality. Instead it found that whether teachers and their students were able to develop or expand aspects of the project models depended on many factors discussed in the next section of this chapter. It can also be argued that, educationally, different types of learning were taking place. Pastiche composition with little, or no, development and compositions which expanded musical parameters presented in the project models could be viewed as representing whether the student engaged in "surface [or] deep learning". This is "concerned with whether the student is searching for meaning or not when engaging with a learning task" (Ramsden 1992:42) and whether he/she is focused on, and concerned with, "the significance of the task...[and] what the task is about" (43).

Swanwick and Tillman (1986) have suggested that we all move through the stages of a spiral of musical development from "sensory response to sound materials" (317) leading to the vernacular "a community of musical commonplaces" (322), onto meta-cognition which is "self-awareness of the processes of thought and feeling in response to music" (330) and ultimately to a "commitment to systematic engagement" (331). One defining characteristic of much minimal music is a 'systematic engagement' with processes involving construction and structure and this distorts the spiral. Swanwick and Tillman noted that students began to focus on matters of form and structure at the Speculative

stage (324). This point was challenged by a number of researchers in Chapter Two and by the large body of compositions across all age levels submitted for this study which expanded and/or developed aspects of structure and construction in relation to the project models. The compositional focus on structure and construction reflected findings made by Barrett (1996b) for whom it was evidence of students “making musical and aesthetic decisions” (58). Yet compositions which expanded, let alone the larger body which developed, beyond the parameters of the project models, explored a variety of musical and related aspects beyond structure and construction, all of which could be viewed as aesthetic decision-making on the part of the student composers and evidence of their musical discourse.

Socially, a number of compositions responded in several ways through the inclusion, by student composers, of aspects of their society. Topics of interest to, and often chosen by, students, included pollution, the zoo, a train, which served as a powerful programmatic impetus to, and focus for, composing activities; inclusion of student humour in titles and musical content; use of instruments – piano, electric keyboard, recorder, strings – on which students could be expected to have some expertise; use of musical characteristics of popular music idioms; evidence of personal journeys of musical exploration; and drawing on the sounds and structures of non-Western musics, for example, gamelan sounds, African musics, at times changing the context to suit the environment of the school.

Implications for teachers are that they should become familiar with the historical development and context of styles of music new to them, viewing the music holistically. This knowledge, without becoming a restriction, should enable teachers to suggest and encourage student exploration through the composing process. Teachers should be aware of the educational implications when introducing composing activities with a prescriptive task design based around one or more model compositions. These are that, firstly, student compositions will represent the gamut of possible compositional outcomes, depending on the musical and conceptual experiences and capabilities of each student and

teachers should encourage students to strive for expansion of musical parameters; secondly, that teachers should encourage students to undertake structural exploration and expansion as this immediately moves a composition beyond the model, gives the student composer a sense of ownership and therefore empowers him/her; and thirdly, closely related to the second, is that teachers should actively encourage students to explore and expand all musical and related parameters when composing. There were strong indications that teachers need to encourage student composers to consider aspects of their society – for example, topics of interest, humour, musical idioms - as part of the composing process and include them into their compositions, a potentially empowering activity which should develop a strong sense of compositional ownership. One further implication is that teachers should not rely on the written word for information about expected patterns of student behaviour in composing activities. Rather, they should be aware of commonalities in the approaches of student composers and watch for, and encourage, the unexpected, taking on, themselves, the role of teacher as researcher.

The teachers' roles and approaches, the focus of the second research aim, were examined in relation to whether the compositional outcomes they submitted expanded and developed or only developed aspects of the project material.

10.1.2 Second research aim

The second research aim, outlined in Chapter One, presumed that some network-selected teachers would facilitate minimalist composing activities based on projects from *The Pulse Music Album*. It then focused on how they undertook this facilitation, for example, the roles and teaching approaches adopted and why the compositions submitted by some teachers expanded and developed, and others developed but did not expand, aspects of the given material.

The network-selected teachers

The presumption that teachers would facilitate minimalist composing activities was accurate. However, out of a network-selected population of 155 only 19 teachers participated fully in the study, engaging their students through composing activities and submitting responses and compositions. The network-selected teachers were part of a continuum of interest, moving from invitation, acceptance, response, interest, submitting responses (some incomplete or not focused on composing activities), to those who submitted responses to composing activities with students in one or more of the study age groups (Table 5.5). The participating teachers who actually engaged their students with the project material through composing activities were often risk-takers and pioneers, with minimalism being encountered as an entirely new aesthetic to students and teacher (Appendix 5B Table 5ix - Teachers who submitted material to the study). The requirements of the study participants were often onerous. However, at all teaching levels, I concluded that despite a keen interest in resource material focused on contemporary art music aesthetics, only a small proportion of teachers were actually engaging their students with this material through composing activities in the classroom. Teachers were unwilling to take part in studies which required time and effort beyond their teaching requirements. This has implications for future research, discussed later in this chapter.

A considerably larger number of teachers at primary level across the 6, 9 and 12 year age groups had expressed an interest in, and received a copy of, *The Pulse Music Kit* than finally engaged with the material and submitted information for the study. Only one music specialist teacher, working in New Zealand, actually engaged students in the 6 year age group with the project material through performing and moving rather than composing activities. Occasional comments from teachers using the material with older age groups questioned how one would approach the 6 year age group and reinforced the perceived difficulties of introducing this material to the youngest age level. These concerns could be seen to reflect Kratus's (1989) finding that students aged 7 years spent

most time exploring musical ideas and a small amount of time modifying (development) and reviewing (repetition) material (17), both characteristics of minimal music. Several primary teachers who responded to a follow-up letter from the study cited lack of musical training on the part of the teacher, lack of student music skills and knowledge, lack of interest or lack of time or room in the music programme as reasons for not engaging primary level students with the project material.

Similarly, a larger number of teachers at secondary and tertiary level had expressed an interest in, and received a copy of, *The Pulse Music Kit* than finally engaged with the material and submitted information for the study. Several stated lack of time or no room in the music programme with three working at private institutions. Two teachers who focused on classical music performance appeared unwilling to engage their students with creative composing activities because their students preferred playing Baroque and Classical trios.

From the responses of all teachers who expressed an interest in *The Pulse Music Kit* I have concluded that while the material suited the age level, musical experience and curriculum requirements of the 15 and 18 year secondary school age group, it was also well within the range of musical skills and knowledge of the 9 and 12 year age groups. I have also concluded that few teachers at all levels, while interested in the material, were willing or able to adapt the material to the level of their students. Instead they were seeking material tailor-made to the skills and knowledge of their age group and to their own level of knowledge of contemporary art music and experience with contemporary performing and composing activities. The project material required an understanding of notation, knowledge primary students in the 9 year age group and above are developmentally capable of acquiring, and an ability to play fast and accurately at a steady pulse, a skill few students at primary level are developmentally capable of acquiring. However, there were strong indications that the material was beyond the musical knowledge and skills of general primary teachers working within public

education systems which do not value music sufficiently to engage music specialists with notation knowledge and musical adaptability in public schools at primary level.

I have concluded, therefore, that teachers required an advanced level of formal musical knowledge in order to fully understand *The Pulse Music Album* and use it successfully as a teaching resource leading to composing activities. At secondary level where teachers' knowledge and experience should have been sufficient to engage with the resource material, I concluded that there was a need for music teachers to retain flexible music programmes and not be reluctant, particularly in private schools, to introduce interesting and relevant resource material when it comes to hand. For tertiary level student teachers in the 18 year age group, I concluded that the project material offered a relevant contemporary music resource, the concepts of which could be grasped quickly but which required time for exploration through composing activities and accurate playing in order to achieve a satisfying outcome. Student teachers need to understand that time is required in order to achieve this holistic outcome and to enable satisfying composing activities in their future teaching.

Several implications for teachers and education systems can be drawn from these conclusions. There is a need for teachers at all levels to develop an interest in, to keep up to date and engage students with, contemporary music, the music of contemporary society. Upon discovering contemporary music which interests them, they need to, firstly, be able to adapt material to the level of their students and, secondly, ensure that their music programme remains flexible to embrace new and interesting material when it becomes available. The study indicated that this latter point is especially valid for teachers in the private school system. Government education bodies need to value music as a subject area at primary level and place qualified specialist music teachers into public primary schools so that music education can become a relevant and empowering subject area. Teachers at tertiary level need to encourage their student teachers in training to develop an interest, and find relevance, in contemporary music and also learn to adapt

material, so that they are empowered to introduce contemporary ideas and aesthetics through their own teaching at a suitable level, to future students.

The majority of participating teachers exhibited a number of commonalities across all areas of enquiry of their work with *The Pulse Music Album*. They were generally musically qualified, experienced specialist teachers with a preference for twentieth century art music who composed and arranged outside the school environment. Teaching largely in public institutions, they had previously introduced their students to non-Western musics and were confident the project material would fit into their music programmes. Most introduced their students to the Phase Shifting project, the first in the album, they noted common ground with previously held knowledge, adopted a strategy sequence and a prescriptive task design and offered students keyed percussion to write for. Several recycled material, some integrated composing with other subject areas and the majority valued recording student compositions as an opportunity for self-evaluation and an holistic view of the works. They were largely student-centred in their approach and some teachers adopted the role of teacher as student. The majority of teachers were positive about all or some of their engagement with the project material and expressed an interest in using some of the material in the future.

Several of these findings led me to conclude that teachers based their choice of teaching material and their approaches and strategies on previous experience and previously held knowledge, a conclusion noted by Brady (1985:3), Bunting (1988:269) and Green (1988:56) and discussed in Chapter Four. However, there were a number of clearly defined differences between the expanders and the developers which had an impact on the compositional outcomes.

Education, preferences and experience

All but two of the participating teachers were experienced with teaching their study age group(s) and had taught for seven to twenty years. The two exceptions, a composer in

schools and an experienced primary teacher new to tertiary teaching, both had practical and theoretical knowledge about disciplines within the contemporary arts. I concluded that engaging students with composing activities drawn from *The Pulse Music Album* required an interest in, and curiosity about, the contemporary arts, in particular twentieth century music. Teachers needed to be experienced with teaching or have the confidence and competence with issues and/or practicalities of the contemporary arts in order to empower student compositional engagement with a contemporary music. Implications are that there is a need for teachers of music to have, or develop an interest and confidence in, contemporary music, preferably backed by practical engagement with the contemporary arts, either professionally such as with the composers in schools or through intensive education.

All expanders and the majority of developers had previously introduced students to music of non-Western cultures and student engagement with twentieth century art music deepened considerably as they left primary school and worked towards late secondary school level although this was not always through composing activities. The majority of expanders noted eclectic listening preferences (eclectic defined here as classical, popular plus one other style of music, for example, folk or world music) while in each age group, one or two developers did not demonstrate eclectic musical preferences or did not address the question. The majority of teachers noted an interest in twentieth century Western art music which was reflected in the 'art music' approach of most teachers. Secondary music syllabuses of New Zealand and NSW also focused on aspects of twentieth century music, on the music of contemporary local composers and musics outside the Western art music tradition. The majority of teachers expressed interest in popular musics. Three conclusions were drawn from these findings. Firstly, governmental music curriculum documents were important and influential, having an impact on individual school syllabuses and teacher-designed music programmes, a conclusion supporting the findings of Temmerman (1991), discussed in Chapter Four, who noted that the approach of curriculum documents affected how teachers approached the subject of music education

through the objectives, content, learning activities, teaching strategies, evaluation and so on, they adopted (157). Secondly, the teachers who chose to engage their students with *The Pulse Music Album* were eclectic in their listening preferences and already explorative in their choice of musics used in the classroom. Thirdly, that while teachers transferred their interest in twentieth century Western art music across to the classroom, few teachers used their popular musical interests to advantage. Implications for teachers therefore, are a need to listen to, appreciate and value a wide range of musical styles and aesthetics from Western and non-Western cultures beyond their 'favourites'. This will serve as a basis of understanding for adaptation of resource material which does not distort or destroy the original aesthetic. There is a need for teachers to bring aspects of their listening repertoire and knowledge into their teaching, crossing boundaries and introducing students to a similarly wide repertoire. At the same time they need to draw on the students' musical preferences and encourage them to bring aspects of these into their compositions thereby making the composing process relevant to the student composers and the society to which they belong.

The majority of teachers wrote that they engaged with composing and arranging as a personal activity. However, while taking part in the study, five expanders and one developer noted that they worked with the project material through composition prior to introducing it to their students; three expanders, two with the youngest age group, and one developer noted that they composed with the students in the classroom; and across the age groups, eight expanders worked as teacher as composer while three developers working with the 12 and 15 year age groups adopted this role. Over half of the expanders, through simplification, arranging and modularizing, adapted project material according to the students' developmental levels while the majority of developers used material directly from the project. Drawing on the conclusion that expanders were able to draw on their arranging and composing experience in and out of the classroom in order to adapt material to suit students' needs, the implication for teachers is that personal experience with composition and experience teaching composing activities over a long

period of time allows them to choose material which is of interest and to adapt it for classroom use.

The high proportion of expanders who engaged in the composition process themselves before, during or outside the classroom composing activities, and who arranged and adapted project material for the students, led me to conclude that teachers who composed and arranged, and particularly those who engaged with the contemporary music, minimalism, were, through their prior and continuing engagement with minimalist composition techniques, more successful at enabling expansion of the project material in the submitted compositions. It also led me to conclude that while the majority of teachers noted that they composed and arranged outside of school time, few of the developers used this facility in their work with the project material. The implication for teachers engaged in facilitating composing activities with their students at all ages is straightforward – learn to compose and arrange and become confident with the manipulation of compositional techniques. There is a need for teachers to develop a knowledge of, and facility with, composing and be able to explore new musical aesthetics, styles and genres, themselves, through composition.

Teaching environment

Several teachers across the age groups wrote of interruptions to their teaching concentration (concerts, musicals, educational changes, complaining science staff) but despite disruptive environments engaged with the material, often over long periods of time. While location of teaching institutions was not found to influence whether compositions expanded and/or developed aspects of the project models, the majority of teachers worked in schools they considered to be moderate to well-resourced. A school population drawn from low or low to middle socio-economic status did not prevent some teachers from encouraging students to expand aspects of the project models in their compositions. However, teachers who noted that their institution's interest in music was not strong, often coupled with negative student attitude to music, found success with the

project more difficult to achieve. I concluded therefore, that while location, a disruptive teaching environment, resources/venues and socio-economic status of school population were not factors which determined whether a teacher led students to compositional expansion of a given resource, teachers not working in a supportive and positive teaching environment were less able to lead students to this compositional outcome. The implication for teachers working in more negative teaching environments is, therefore, a need to take this factor into consideration when introducing students to a contemporary art music new to them, weighing up issues of time, student developmental and musical level, resources and student interest keenly in the planning equation. These teachers also need to be especially aware of different teaching strategies with which they might engage students to retain student interest. These strategies or 'tricks of the trade', including recycling material, modularizing material through games, composing with the students, contextualising material, are discussed later in this chapter.

Teachers working with students in the 9 year age group noted that their students were of mixed musical ability, that most had undertaken a music programme previously at the school and none had elected to study music. With the exception of the class taught by the composer in schools, students in the 12 year age group, also, had not elected to study music while students in the 15 year age group and the majority of the 18 year age group had chosen to do so. Students in the three older age groups, taught by expanders, were all considered to be of higher musical ability, have a stronger musical knowledge and possess a less diverse range of abilities and knowledge than the students working with developers. I concluded, therefore, that while educational systems largely determined whether students had elected, or not elected, to study music at particular stages of their school life, this factor had little, if any, effect on whether teachers were able to facilitate expansion and/or development of given project material through composing activities. The musical ability and previous musical knowledge of students, however, and the consistency of this ability and knowledge across a class, had an impact on the compositional outcomes submitted for the study. There is a strong indication that

teachers need to be aware of the musical ability and previous musical knowledge of their students, noting whether there is a wide range of abilities and held knowledge or whether students are all at a similar level. They also need to realize that this information will impact more strongly on their teaching outcomes than whether students are studying music as a compulsory or chosen subject area.

Expanders working with the 9 and 12 year age groups focused their aims for the project material on skills and concepts while the developers focused on empowerment, improvisation and performance. For the two older age groups these focuses were reversed with the expanders aiming for empowerment, organizing sound through composition and performance plus some skills knowledge and the developers focused on skills, notation, culture and some composition. My evaluation of their teaching noted, however, that the majority of expanders focused their teaching on composition while the majority of developers focused on other music activities including performance, notation, computer software, culture and improvisation. Half or more of the expanders across the age groups ranked composing and creative activities highest while half or more of the developers ranked singing/performing highest. From these findings I have concluded that in practice the majority of expanders remained focused on composition while the majority of developers were distracted by activities other than composition. I also concluded that this focus, by expanders, on composition was related to their high ranking of composing activities and the tendency of developers to be distracted by other activities was related to their high ranking of music activities other than composition. There are strong indications, therefore, that when teachers engage their students with contemporary composition techniques they need to value composition highly as a curriculum activity, outline balanced aims which empower students while teaching them skills and, at the same time, remain focused on the composing process.

Teaching perspective

Teachers who outlined their own music education perspective or philosophy focused on fun, enjoyment, striving, links with the community, the love of music and holistic creative outcomes. This reflected a similar need beyond music education, in business for example, where others have asked, “if you haven’t got a philosophy about life, how can you manage people?...You’re managing lives; you’ve got to understand what people are about, what they need, what motivates them” (Ferguson cited by Moodie 2001:43). The majority of expanders outlined an empowering, holistic music philosophy. They worked on project material for a long time seeking results which provided satisfying musical outcomes for students and teacher. A study of this size required a large time commitment on the part of participating teachers and questions could have been missed for a number of reasons. However, one or more developers in each age group did not address the question. From this I have concluded that those with a strongly stated music education vision of why they were teaching music to (often reluctant) students had a sense of direction which, despite, at times, lack of experience with, and knowledge of, composition teaching and twentieth century music, led to achievement of satisfying compositional outcomes for teacher and students. The implication for teachers is that a teaching philosophy or perspective is not just words on paper, but does provide an opportunity for self-reflection about why they are teaching music.

Approaches and strategies

The majority of participating teachers predicted that the project material would fit in with their current music teaching. From this I concluded they had evaluated the project material and planned to accommodate it in flexible music programmes. Again, the implication for teachers is to design flexibility into the school music programme in order to incorporate new, interesting and relevant material as it comes to hand.

The Pulse Music Album offered eight projects. All but three teachers chose projects largely based on the project order laid out in *The Pulse Music Album* with the first project, Phase Shifting, most frequently introduced to students, usually as their

introduction to minimalism, ‘first page syndrome’. This occurred despite the album introduction encouraging teachers to use the material how they liked. With the exception of one teacher, this group included all of the developers, most of whom worked with Phase Shifting for two to five lessons offering their students single model prescriptive composition task designs. Because of its third place in the album, Add and Subtract was introduced third by four teachers at a time when the students had finished working with two others, usually Phase Shifting and Phase Shifting Melodies, and had tired of minimalism. Because of its place at the back of the book, few teachers worked with the Gamelan project despite several promises to do so. This led me to conclude that the majority of teachers worked from the beginning of the album expecting the material to be appropriate, in the given order, to their student age group and experience level. This has implications for teachers and for writers of music education resource material. Teachers need to understand that using a resource book not designed for sequential use requires a thorough reading and understanding of the material before it is employed in the classroom. For resource writers, instructions on how material can be approached should be written clearly at the beginning of the book.

The majority of teachers noted common ground between the projects and previously held student knowledge, some responding specifically in the questionnaire, others noting it was unfamiliar but describing bridges with earlier work as they outlined their engagement with the material. The common ground could be as general as improvising, composing and performing activities, material for an ‘integrated approach’, harmonic material or as specific as ostinati, pentatonic composition, Reich’s *Clapping Music*, canon and rounds. Either way, I concluded that familiarity through common ground provided an anchor, psychological or practical, for teacher and students from which exploration with new material could be undertaken, leading eventually into other compositional techniques and styles. For teachers, the implication is that deliberately seeking common ground between new material and previously held student knowledge can provide a bridge over which student composers can be led to explore unfamiliar musical sounds and experiences.

The task design is at the heart of classroom composing activities. Choice of task design depended on the composing experience of the students and the confidence of the teacher with different task designs suiting different teaching and learning situations. All teachers adopted a prescriptive task design based on one or more composition(s) as model(s). At least half of the expanders working with the 12, 15 and 18 year age groups, however, offered students a multi-focused or multi-model task design. Teachers who adopted a single model prescriptive composition task design achieved expansion of the project models beyond pastiche in one of three ways - first, by the teacher enabling the student groups or individual student composers to achieve expansion of the project concepts but not actually offering them multi-model combinations as examples; the second, by teachers working as composers with the students through composition by committee, exploring until a satisfying outcome was achieved; and third, by improvising while the students played a pastiche phase shifting piece. The developers with all the age groups retained the prescriptive single model task design, at times employing a template to control early composing activities and this resulted in pastiche compositions. The majority of expanders working with the 9, 12 and 18 year age groups, and developers working with the 15 year age group, submitted compositions with titles.

I have concluded, therefore, that the multi-model task design, by its very nature, encouraged students to immediately move their composing activities beyond pastiche writing through selection, decision-making and therefore exploration of possibilities. Teachers working with younger students who encouraged students to expand beyond the ideas of the project models through a single model task design, adopted the role of explorer with themselves as active enablers, facilitating composition by committee and improvising with the students. There were strong indications that composition topics and/or titles provided a stimulus and focus for compositional outcomes with young or inexperienced students. The implications are a need for teachers to be aware of the usefulness of prescriptive task designs based on a template or model to focus beginner composers at primary, secondary and tertiary levels, through initial pastiche writing on

particular compositional techniques which need to be mastered before a freer task design is offered. They need to be aware that when offering a multi-focused task design, rather than a single model task design, they are immediately giving student composers the opportunity to make decisions and choices and are enabling opportunities for exploration beyond pastiche writing. When material is new, teachers may find a task design which deliberately embraces common ground with previous knowledge provides a bridge and therefore a way of familiarizing and orienting the new material for teacher and students. Familiarity with material, however, can result in revision which negates the impetus to move forward and teachers need to use strategies which lead to exploration. They need to be aware of the use of titles and/or composition topics, preferably drawn from the students' society, as a stimulus and focus for young or inexperienced student composers, a finding noted by Davies (1986) and discussed in Chapter Four. I also suggest that when students adopt titles for their works it indicates they are becoming connected with, and involved in, the composing process, are making the piece relevant to themselves through programmatic connections, exercising their imaginations and are becoming self-motivated with regard to composing activities. As students often respond more positively to, and adopt titles for, compositions with a pitch set and may find writing minimalist processes for untuned percussion too abstract and mechanical; this suggests that teachers should not always begin with rhythm only when introducing students to a new compositional technique but offer a choice of rhythm or rhythm with a pitch set. Teachers, therefore, need to consider the impact of the composition task design on their students' compositional outcomes.

The majority of expanders and developers working with the 15 and 18 year age groups played excerpts of minimalist music to students and contextualised composing activities with the project material by making it relevant to contemporary society or recognized the relevance of introducing students to a contemporary art music. No developers working with the younger age groups played excerpts of minimalist music or contextualised composing activities with the project material. Similarly, the majority of expanders working with all age groups plus developers working with the 15 year age group

discussed aspects of construction and structure with their students while none of the developers working with the two younger age groups did so. From this I concluded that in classroom environments where time was fractured and the limits of students' interests and concentration needed to be taken into consideration, making new material relevant to the contemporary society of the students led more quickly to a deeper understanding of the material and on to a more satisfying and meaningful exploration and expansion of the material. And this engagement with contemporary society both in the classroom and in the larger community presented opportunities for dialogue between student composer and his/her society which resulted in student empowerment. I also concluded that highlighting, through discussion, how compositions are constructed and structured, process being one of the distinguishing characteristics of much minimal music, encouraged students to consider exploration and expansion of these parameters in relation to the model offered as the basis of a compositional task design. The implications are a need for teachers to discuss aspects of construction and structure during student composing activities plus all musical parameters as they arise in the composing process, or target them for discussion as this draws attention to these parameters and marks them worthy of consideration for change and compositional expansion. Engagement with contemporary music, broadly defined, is an engagement with contemporary society and the teacher of composing activities needs to build a circle of interaction between student composer and the classroom, the classroom being a microcosm of society (Paynter 1982:22) or the wider society itself within which this exchange can take place. This contextualisation through various means - introducing students to relevant music, including popular styles, of living composers through recordings, live concerts or the composers themselves, integrating music with other subject areas, exploring resources of contemporary music such as *The Pulse Music Kit*, drawing on aspects of the students' society through text, humour and aspects of popular music, introducing students to relevant prerecorded music and concerts of compositions which place student works into the wider contemporary society and offer opportunities to "disturb habitual ways of feeling and perceiving" (Small 1980:217) - makes the composing process relevant to the

student composer. Teachers also need to be undeterred by initial negative responses from students to music which is new to them and to consider adopting one or more of these ways of contextualising music for students in order to facilitate their engagement as student composers, with contemporary society.

While the majority of expanders worked with the project material over four to 25 lessons, as did one or two developers with the 9, 12 and 15 year age groups, other developers stayed with the material for shorter time periods, those working with the 18 year age group noting that this time period was insufficient. However, of those who addressed the question, the majority of expanders noted that students took shorter time periods to compose ranging from several minutes (instant composition), homework to three lessons, while the developers often wrote of days and weeks. Expanders working with the 9, 12 and 15 year age groups, who addressed the question, noted that students composed from sound to symbol with some working from symbol to sound in the 15 year age group, thereby expressing an expectation, or noting a growing ability, for audiation to occur. Developers with the same three age groups noted that students at all levels composed both ways. From this I concluded that while many expanders with the three younger age groups engaged their students with composition tasks which required a relatively short period of time, they worked with the project material over a longer period of time allowing the students time to work largely from sound to symbol, with a growing ability to compose directly to symbol in the older age groups and allowing time to rehearse towards satisfying, accurate performances of their pieces.

The developers, however, noted that students took a long time to compose yet worked with the material for shorter time periods despite noting that their students were not all composing straight to symbol but requiring time to work from sound to symbol. For teachers, the implication is that younger students need to be set composition tasks which can be achieved satisfactorily in a short period of time within a time frame which allows for more than one task, further exploration and self-evaluation to take place and a

satisfying performance to be achieved. Instant composition can be a useful tool for students at all levels, encouraging a facility with notation skills combined with fast, simple, creative thinking for class composition, introductory pastiche writing and offering more experienced student composers a way of exploring ideas in the preliminary stages of composition. Older students, however, may require a longer time frame within which to engage with sound exploration, empirical composition and/or composing to symbol, building more complex textures. Teachers need to consider these factors in relation to the length and complexity of the composition task which the students are undertaking.

The majority of expanders engaged their students in group and class composing activities resulting in student interaction with others in the classroom and composition by committee. At least half of the expanders in each age group also engaged their students as individual composers. The developers favoured group and class composition with three teachers, working with the two younger age groups, engaging students as individual composers. This led me to conclude that while students could compose as a class, in groups and as individuals at all age levels and levels of composing experience, the most valuable composing environment was for young and/or inexperienced composers to work as a class or in groups, with individual composition exercises being brought into class or group composition. This conclusion differed from the focus of a number of composition studies discussed in Chapter Four which investigated the composing process of individual students at several age levels. For older and/or more experienced student composers, the most valuable composing environment was working as an individual, with group or class composition being used as a workshop impetus to these individual activities. For teachers the implications are that young and/or inexperienced composers may prefer and benefit from composing as a group or class, with short individual composing tasks being included as a change of approach, rather than offered as the only approach. However, more experienced student composers may prefer to work individually, with group or class composing activities taking a less dominant role. This suggests to teachers that with composing confidence comes a desire to create as an individual and older students who

are more intellectually in charge of the composing process can choose to work by themselves, engaging in group or class composition through workshops when new ideas are being explored.

Several teachers across the age groups recycled material from one composition to another. Used, at times, as an intermediary stage between playing the model and commencing original composing activities, the strategy appeared in different formats - rhythmic material from one composition was used as the basis for another piece often through the addition of pitch and one student employed a retrograde version of a pre-existing rhythm from a project model; new texts were written for project models bringing a relevance to the students' context; the composer in schools recycled a visual image from one project to serve as the programmatic inspiration for composing activities with a different project; the opening of a project work was welded with a newly composed or improvised continuation, instrumentation was changed from one performance to the next (voice to instruments, for example) thereby introducing students to new and varied sound colours, and one teacher's worksheets included a number of compositions which were subtly changed versions of the project pieces. These experiences led me to conclude that recycling material was a valuable composition strategy for two reasons: it allowed material familiar to the students to be introduced in a different way, building on obvious common ground; and at the same time, gave students the opportunity to understand that manipulating and transforming musical material is at the heart of the composing process. The implication for teachers is a need to be able to recycle material in different ways, offering students opportunities to rework previously learnt material combined with new parameters and this can be useful as an intermediary stage in the compositional process.

Improvisation was used with increasing frequency from the youngest to oldest student age group by expanders, while four developers working with the three older age groups engaged students with this activity. For many teachers in the study improvisation was at the heart of their composition teaching process, an approach Burnard (2000) found to be

often adopted by student composers. Approaches to improvisation ranged from tightly framed improvisatory activities which were a planned part of the composing process to spontaneous compositional additions by students during performance. This led me to conclude that improvisation is a valuable part of the composing process which is used frequently by teachers working with older students but tends to be overlooked by teachers engaging younger students with composing activities. It also led me to conclude that there are many different ways to improvise and teachers who chose the approach most suited to their students and the composition task enabled some of their student composers to expand aspects of the project models. The implication for teachers is a need to understand and value different approaches to improvisation and use them at different stages of the compositional process. Some primary teachers in the study were used to leading their students into free, creative improvisation with a programmatic stimulus and were unable to adapt their improvisational knowledge to the systems inherent in minimalism. However, others presented several different, effective approaches to improvisation – an improvised ‘gamelan’ piece was inspired by the gamelan excerpt from the kit cassette; students encouraged to adopt an empirical approach to composing with improvisation leading to creative decision-making on paper or tape; improvised clapping over a phase shifted piece from the project; improvised echo or call and response patterns as an intermediary composition/performance stage; students breaking freely into improvised sounds; and recycling the opening of a pre-existing composition and continuing with new improvised material. There is a need for all teachers to understand this range of improvisational approaches and be able to adapt their approach to the different requirements of the composing process and the project material as they arise. As with any musical activity, improvisation needs to be experienced and practised frequently so that teachers leading students into improvising activities can feel confident with the approaches they are adopting.

The participating teachers at primary, secondary and tertiary level who engaged their students with the project material through composing activities adopted different

activities and strategies to accommodate different age levels, previous experiences, objectives, teaching environments and student abilities. However, within the differences, a series of steps emerged with variations in order and options, which were common to all but two teachers. At the core was a strategy sequence (Table 10.1) and I have concluded that this was adopted because the material was new to the students and, for many, new to the teachers as well and because the material was presented in a book of projects. This core strategy sequence was coupled with a wide range of teaching strategies and activities discussed above, referred to earlier as ‘tricks of the trade’, adopted by individual teachers, which saw stages of the strategy sequence being repeated, project material being adapted, contextualised and presented as a composition task in many different ways. Not all teachers adopted all stages of the strategy sequence and each teacher used different ‘tricks of the trade’. Those included in Table 10.1 were used frequently enough by a large number of teachers, to require a place in the strategy sequence.

Table 10.1: Strategy sequence for introducing contemporary music new to students (and new to teachers) through composing activities ²

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| <ol style="list-style-type: none"> 1. (Playing excerpts of prerecorded, relevant music for aural analysis, contextualising) 2. Performing a composition from the project 3. (Recording the performance) 4. Discussion of structure and other compositional concepts 5. (Improvisation and/or composing empirically) 6. Composing activities based on a model - prescriptive task design 7. Playing student compositions 8. Recording the performances 9. (Evaluating the compositions and performances) |
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The implications for teachers are that introducing students to new material may take place through a strategy sequence but also that deviations from this sequence are important. These deviations, adopted by both expanders and developers in the study, include reversing the improvisation to notation paradigm, pastiche composition as a homework task, combining several short student compositions into one larger more complex work and designing worksheets for students.

² bracketed activities were employed by some, but not all, teachers.

The composer in school did not adopt all of the strategy sequence. She did not always engage her students in performing compositions from the projects and instead moved through improvisation and discussion, guiding students as they composed, performed, recorded and evaluated pieces which were performed in a school concert. From her approach I concluded that because of her professional experience as a composer, she was able to absorb the ideas in the projects and communicate them to the students without always leading the students through performance and analysis of project models. The implication for teachers, again, is the need to compose and become comfortable with composing in a range of musical styles.

All teachers submitted one or more recorded performance(s) of student compositions. Tuned percussion, an instrument family frequently used in the classroom and introduced from the Orff Schulwerk approach but almost never formally learnt by students, was offered to students by the majority of teachers, some noting that they highlighted rhythmic imperfections. Orchestral and band instruments and pianos were seldom employed despite being the instruments on which most students would be undertaking formal tuition and have a level of expertise commensurate with their age. Only the two expanders working with students in the 9 year old age group adopted the recorder, an instrument on which the students would have had facility. The majority of expanders across the age groups introduced audible cues to control the pulse, often building it into the compositions. Those working with students in the 12, 15 and 18 year age groups noted that students played from memory and/or ear plus notation, the expanders working with the 9 year age group stating that the students played from notation. The majority of expanders also submitted accurate, often strong and vigorous performances of many of the students' compositions. Few developers built the pulse into the compositions relying instead on visual gestures. The majority of developers noted that their students played from notation and most submitted a small number of largely inaccurate performances. Many teachers across all groups commented on problems associated with performing

minimalist compositions – keeping track of multi-repetition, maintaining a steady pulse and not being confused by other contrapuntal lines.

Remembering that the students of the majority of the expanders were considered to be of high musical ability, with good previous knowledge and represented a reasonably uniform range of abilities, I concluded that students working with expanders who adopted keyed percussion were able to handle the difficulties of playing instruments on which few would have had formal training. I also concluded that making the pulse audible by building it into the composition and/or the performance, and by acknowledging and allowing students to play by ear and memory plus notation, the expanders gave students the environment to produce accurate, often strong and vigorous performances of their compositions. I concluded that when students played instruments on which they had little formal training, when the pulse of the music was silent and visually present through conducting or quiet counting and when students relied on notation then performances were less satisfactory and less satisfying. For teachers, the implications are a need to encourage students to write for, and play, instruments on which they have facility and idiomatic knowledge – piano, instruments of the concert band, rock group and/or orchestral instruments; to allow students to play by ear, by memory, from notation or a combination of all three; to suggest that student composers consider writing audible cues into their compositions; and to deliberately leave time for rehearsing in order to reach a satisfying level of performance without striving for a perfection which may not be achievable. Teachers need also to be able to draw on their out-of-school music activities, adapting and arranging material to the performing level of their students without destroying the original aesthetic. They can take part in playing with the students, acknowledging mistakes when necessary and engaging in a two-way learning rehearsal process. Teachers also need to alert students to unexpected aural outcomes resulting from inaccurate performances of notated scores as these sometimes result in fresh, serendipitous ideas different from those intended by the student composer, which can be explored.

The majority of teachers noted that recording student work was valuable for self-reflection, enjoyment, self-evaluation and discussion of composition and performance and for empowerment with many teachers commenting on the length of time recording and playing back pieces took. From this I concluded that recording student work, despite being time-consuming, was a valuable task which allowed reflection, evaluation and appreciation of one's own achievements and those of others and also offered opportunities to hear and consider pieces holistically. The implications for teachers, therefore, are a need to plan for recording student work, weighing up time spent against the benefits of self-evaluating and discussing student compositions holistically, and the resulting student empowerment. They need to be aware that the self-knowledge obtained from self-evaluation via the recording process has the potential to empower students as composers and also lays the foundation for students to be able to record their work for distribution into the wider community of contemporary society.

The majority of participating teachers were student-centred to varying degrees, allowing students to learn from each other, to lead the pace and direction of composing activities and trusting in their creative decision-making. The majority of expanders were enablers who allowed and encouraged the students to explore as they composed while the majority of developers were largely instructors less able to lead students to compositional exploration. The roles of teacher as composer and teacher as student were adopted by expanders and developers. Developers who worked as teacher as composer did so prior to classroom work and students did not see them in this role. From this role diversity I concluded that teachers adopted a number of different roles according to their confidence with composing activities and with the teaching material. Those who adopted a flexible approach, enabling exploration of the material and with the confidence to work as teacher as composer, achieved expansion and development of given ideas in student composition, at times not deliberately but at other times deliberately in order to negotiate particular challenges. Those less secure adopted a more rigid approach as instructor, unable to

empower their students as they, themselves, adopted the role of teacher as student, achieving compositional outcomes which pastiched the models.

While the teachers whom I designated to be enablers had very different backgrounds and teaching approaches, they all allowed their students to move beyond the ideas presented in the project models and all actively encouraged this exploration. Some were experienced composers or experienced with teaching composition and were able to actively guide their students. Several, in the role of teacher as student, learnt about the project material's potential as they learnt about composing activities. Others adopted a two-way learning approach, using their experience with composition and composing with the students, guiding, exploring and learning from one another. I concluded that teachers who adopt the role of enabler during composing activities created a context within which students could compose and led their students to a deeper engagement with the project material than those who adopted the role of instructor.

Because the material was new to them, some teachers worked quite overtly as teacher as student, learning about the projects as they introduced ideas to their students. While this was a useful role for teachers, it could become self-focused, especially when the learning curve was high and preparatory learning, which should have been undertaken before entering the classroom, took time and focus away from composing activities. This led me to conclude that the role of teacher as student could be a positive impetus for triggering composing activities in the classroom but could also be self-absorbing and therefore less positive for the students. I have also concluded from the approach taken by three teachers in the study, that the role of teacher as researcher gave valuable feedback about student reaction and response to material, feedback which could affect future teaching. This use of action research within the classroom is discussed later in the chapter.

The implications drawn from the conclusions outlined above are that the roles of enabler and teacher as composer, combined, are the most valuable for teachers working with

student composing activities as they allow both students and teacher to reveal their potential. The role of enabler is heightened considerably if teachers have a spirit of creative adventure, are experienced with, and intellectually in charge of, the composing process themselves and can see the potential of compositional material. They, in turn, can communicate this potential to their students and facilitate student exploration of sound and compositional techniques.

Outcomes

Many teachers acknowledged composing to be an empowering activity for their students. However, the majority of expanders and the developers working with the 18 year age group empowered their students and in doing so, empowered themselves as well. At times teachers referred explicitly to this achievement in their responses. At other times I interpreted empowerment from their results, drawing on findings noted in the literature review of Chapter Four - through concerts, humour, practical primary teaching, student topics, professional composers drawing on strong connections with contemporary arts and contemporary society, the pleasure and enjoyment students received from hearing their compositions and achieving a satisfying performance and being 'in charge' of their work. With teachers in both groups, the album material was empowering as it allowed students to achieve through concepts which were simple to perform, offered easy composing opportunities and lit a creative spark because of new ideas and a new aesthetic. The experiences of teachers in the study led me to conclude that while empowerment was achieved through a number of different situations and approaches and was often not specifically planned, it had the capacity to lead teachers and students to a deeper engagement with the composing process with contemporary techniques often resulting in compositions which expanded aspects of the project models. This implies a need for teachers to consider and deliberately adopt composition teaching strategies which empower their students and themselves.

Participating teachers working in the NSW secondary school system demonstrated the strengths and potential imbalances of educational documents which encourage an 'integrated approach'. Strengths saw teachers making the project material relevant to their students by contextualising it in many ways, balancing composing activities with skills and theory learning. However, when musical concepts alone were the teaching focus, the performance and compositional outcomes, drawn from a different musical aesthetic, were seldom realized to their full musical potential. I concluded that because of the potential breadth of the integrated approach teachers needed to choose one primary focus during a teaching module and make that focus relevant to students. This has implications for teachers working in NSW schools where the 'integrated approach' can lead some to view minimalism as just another new musical idea from which elements may be taken.

Integrating project material with other school activities was undertaken through a school topic which permeated all subject areas, through computers, through connections between gamelan music and Indonesian Studies, through minimalist art and through similarities between the phase shifting process and mathematics. These experiences led me to conclude that integrating contemporary art music composing activities with other subject areas was a valuable contextualising strategy. The implications for teachers are: a need to find ways of maximizing these links, to find time to integrate with other subject areas both within and outside the school environment, thereby providing opportunities for enrichment of knowledge of other cultures and deeper learning about existing connections between, for example, mathematics and music.

Evaluating *The Pulse Music Album*

Teachers were asked in a questionnaire to comment on *The Pulse Music Album*, focusing on specific positives and negatives they encountered working with the album. While most teachers voiced some positive comments about the album, criticism of the projects was most strongly and frequently voiced from expanders working with the 12 and 15 year

age groups. From the comments of all teachers I noted that the projects offered sound ideas with potential for skills learning, for listening, creativity, group work, demanded performance control and were useful as intermediary ideas leading to other material. The material was inherently adaptable yet many felt there was a need to provide evidence of this adaptability, to suggest music activities and use simpler directions, examples and language especially for primary level. At secondary level also, several teachers had not found it straightforward to read and understand, wanted texts which matched the interests of teenage students, felt the project material often had unrealistic expectations and needed information about specific recordings by minimalist art and popular music composers which would have begun to contextualise the project material thus helping teachers and students deepen their understanding of the minimalist aesthetic. Two expanders and one developer with the 18 year age group were positive about the material's accessibility. Some teachers felt the projects could be used sequentially if they determined the order and used material judiciously, others argued against this saying that a little goes a long way and a system of composing dampens creativity. I concluded that designing one music resource for a wide range of age groups was not an effective way of encouraging a large number of teachers at primary, secondary and tertiary level to introduce their students to minimal music composing activities.

The implication for designers of teaching resources focused on composing activities is that there is a need to shape material for specific levels of student musical development, to make the material accessible to each level, to be aware of curriculum requirements, to keep language simple and clear and to contextualise material. For teachers training primary teachers, resource designers need to take into consideration the fact that students may have little or no prior musical training and introducing them to composing activities is in some ways, but not all, like working with middle primary students. Tertiary students may be able to grasp concepts and contextualise new ideas more quickly than younger students but like young students they need time to develop performance skills and time to explore and gain a deeper understanding of the composing process and

compositional issues as they will be carrying this musical knowledge on to their future students.

The majority of teachers were positive about all or some of their engagement with the project material and expressed an interest in using some of the material in the future. However, several teachers took the opportunity to reflect on their teaching and wrote critically of their own approach with the material. While future use of *The Pulse Music Album* is outside the focus of this study, I concluded that the material offered potential for long-term teaching engagement. I also concluded that by offering teachers an opportunity to critique the material, I was offering an opportunity for self-evaluation. For teachers self-reflection and evaluation implies a need to act on criticisms they make of their own teaching thereby involving themselves in action research in the classroom, the teacher as researcher.

The majority of students working with expanders registered a positive response to aspects of their engagement with the project material, while students of developers, overall, gave mixed responses to their engagement. From the student responses filtered through the teachers' questionnaires plus the written comments submitted by students working with three teachers, I noted that students commented on the excerpts of prerecorded minimal music (often negative), their work with the projects (positive and negative), working with projects with pitch (positive), working with projects without pitch (often negative) and needing a tune. I concluded that when a response was filtered through teachers it tended to be either positive or negative whereas individual students wrote of both positive and negative aspects to composing activities with the project material. I also concluded that when students engaged with composing activities leading to expansion of compositional concepts presented in the models, they responded more positively to the project material. When working with pitch, students often responded more positively than working with rhythm only, reflecting Fung's (1995) finding. Implications for teachers are a need to be aware of, but not be deterred by, negative student response to excerpts of music new to

them, to realize that many students will find positive and negative aspects to a given composition task and to offer students the opportunity to work with rhythm and/or pitch rather than rhythm only. At the same time, contextualising strategies can often avoid these negative responses, as discussed earlier.

Summary

In summary (Table 10.2), the expanders exhibited attributes, environmental factors and adopted approaches which helped facilitate the expansion of concepts introduced in the project models through composing activities. They worked in supportive school environments generally engaging with students of higher musical ability with less diversity of ability. They outlined empowering, holistic music perspectives, ranked composing activities highest and kept their teaching focused on composition. They introduced students to excerpts of minimalist music, contextualised the minimalist aesthetic making it relevant to the students, discussed construction and structure with students in the older age groups, adapted and arranged material for the student level and often adopted a multi-model task design. Working as enablers and often as teacher as composer, many tried the material first and took time to engage students in groups, as a class and as individuals in short composition tasks, often facilitating student choice of titles for their compositions. Some composed with the students, many improvised and encouraged students to include an audible pulse in their compositions and the majority empowered their students. Playing by ear, memory and from notation, their students submitted a number of strong performances to the study, were allowed time to build an accurate performance and the majority of these students registered a positive response to aspects of their engagement with the project material.

Table 10.2: Summary of approaches, strategies, roles and responses

	Expanders	Developers
Approaches & strategies		
Flexible music programme	Yes	Yes
'First page syndrome'	Yes	Yes
Common ground	Yes	Yes
Contextualising material	Yes (15 and 18 yrs)	Yes (15 and 18 yrs)
Recycling material	Yes	Yes
Recording student work	Yes	Yes
Strategy sequence	Yes	Yes
Improvisation	Yes (older students)	Yes (older students)
Lesson focus	Composition	Other activities (plus composition)
Prescriptive task design	Single model <u>and</u> multi-model/multi-focus	Single model (Template 9 yrs)
Discussion of structure and construction	Yes	15 yrs only
Titles for compositions	9, 12 and 18 yrs	15 yrs only
Time to compose	Long teaching time, short composing time, sound to symbol (instant composition) - (9, 12 and 15 yrs)	Short teaching time, long composing time, sound to symbol
Adapting material	Yes	Seldom
Composing as a class, in groups, as individuals	Class and in groups - younger and/or inexperienced student composers; Individual – older and/or more experienced student composers (group workshops)	Individual – younger students (and some older) Class and in groups – younger students (one teacher); older students
Teacher composing	Yes, usually in the classroom in front of/with the students	Composing undertaken prior to classroom work; material used directly from the projects
Performing	Tuned percussion, audible cues, students playing by ear, memory, notation or combination of all three, time to rehearse = satisfying performance	Tuned percussion, visual conductor, students playing from notation, insufficient time to rehearse = unsatisfying performance

Empowering, holistic music philosophy	Yes	Seldom outlined
	Expanders	Developers
Roles:	Student-centred	Student-centred
	Enabler	Instructor
	Teacher as composer (8)	Teacher as composer (2)
	Two-way learning	
	Teacher as student (some)	Teacher as student (some)
	Teacher as researcher	Teacher as researcher

The majority of developers worked in less supportive school environments, working with students with a diverse range of musical abilities. Few addressed the question of a music philosophy, ranked singing and performing more highly than composition and focused on skills and knowledge plus activities other than composing in their teaching often leaving insufficient time for the composing process to be explored. Relying on material straight from the projects, developers working with the younger age groups did not discuss aspects of construction and structure and did not attempt to contextualise the projects. They engaged their students for short periods of time yet noted that they took a long time to compose. Students worked in groups and as a class or as individuals and those in the 15 year age group often adopted titles. Working largely as instructors, few teachers improvised and noted that the students predominantly played from notation with a visual rather than audible pulse. They who adopted the role of teacher as composer, composed prior to classroom work rather than in front of their student. A small number of compositions with recordings, often revealing inaccurate performances, were submitted for the study.

There were strong indications, therefore, that despite many commonalities between expanders and developers, it was the uniquenesses which distinguished one group from the other. These resulted in compositional outcomes which either expanded and developed aspects of the project models or developed but did not expand aspects of the project models. I concluded that the expanders used time to their advantage in several ways. They engaged students with the project material for a substantial length of time

encouraging compositional expansion and accurate, satisfying performances; many had taken a long period of time learning to compose professionally or developing considerable knowledge about teaching composition; they took time with the project material either prior to, or during, class teaching by adopting the role of teacher as composer in the classroom or exploring the material themselves to write a model composition; and built on the students' previous musical knowledge, that is, maximized the 'time' the students had spent gathering knowledge about music over the previous years, by adapting and arranging material for their level. The developers spent less time with most of these factors outlined above yet while an initial grasp of concepts may take place quickly when teaching concepts and aesthetics new to students of all ages, time was required to pursue "deep learning" (Ramsden 1992) and full exploration. Deep learning occurs when students experience "the learning situation as one that require(s) them to extract personal meaning from the [material being studied]" (42). This time requirement needed to be balanced with the interest span and musical capabilities of different age groups. The findings also led me to conclude that teachers who focused their teaching aims and teaching time on composition, and adopted teaching strategies which explored the composing process while exploring the project material, led their students to the heart of this activity by understanding the need to make contemporary music and the composing process relevant to the students. This relevance was undertaken by contextualising the new material, discussing structure and other musical parameters, adapting material if necessary, enabling students to compose in groups or as individuals working by ear, memory and notation, empowering them to perform, record and evaluate many strong, accurate performances resulting in, generally, a positive response from the students. By working as composing teachers, they empowered students to understand the role of composer as one which connected strongly with contemporary society in the classroom and, for professional composers, outside.

The implications drawn from these conclusions are for teachers to consistently adopt contextualising and empowering approaches, strategies and roles when introducing

contemporary composing techniques and activities, to become confident with, and intellectually in charge of, the composing process encouraging exploring and expansion of musical parameters, and to be aware of, and plan for, time for discussion, composing, performing and evaluating.

10.2 Limitations of the study

While the study reached several conclusions about introducing students to minimal music through composition at primary, secondary and tertiary level, the study had several limitations. The teachers' questionnaires sought information on a wide range of issues and in doing so asked more questions than many busy music teachers had time to answer. Similarly, the inclusion of the student questionnaire seeking preferences, background and so on, proved to be an unnecessary burden for the teachers and the students. While I designed *The Pulse Music Kit* as a resource which would serve the needs of this study plus provide a resource for participating teachers to use in the future, the demands of the kit definitely stopped one teacher from participating in the study and potentially put others off. However, for those who submitted responses, the resource seems to have been worth the time taken answering questions. I noted that while some teachers did not respond to every question, they gave detailed answers to those about which they had something of particular interest to say and in doing so, were reflecting and evaluating their work with the material in the role of teacher as researcher. This has implications for educational research based in the classroom which are discussed in the next section of this chapter.

In the teachers' questionnaires I regret asking teachers whether they felt the project material could be used sequentially as I will always wonder whether some read the questions first and felt that this was how they were to use *The Pulse Music Album* despite instructions to use the projects however they liked. To avoid 'first page syndrome', I could also have designed *The Pulse Music Album* with loose rather than bound projects, allowing each teacher further freedom of project choice.

When designing *The Pulse Music Album* I tried to write material suited to students aged 6 to 18 years, in retrospect an impossible task, and to provide just enough information to stimulate the interest of teachers. The result of this was that the participating teachers were all explorers, prepared to adapt the material to suit the level of their students. This turned out to be a positive outcome for the study and has provided some of the most valuable conclusions. However, I regret not contextualising the minimalist projects more deeply as I had done with the African and Malay gamelan projects as this would have helped the teachers for whom minimalism was a new aesthetic.

10.3 Issues for teacher training and in-service training

While experienced teachers have roles and strategies they have used in their teaching over time there is a continuing need for demonstration and discussion of new ideas, new ‘tricks of the trade’ through in-service training. Student teachers need to be equipped with information about, and experience with, these roles and strategies. From the conclusions of the study, several implications for teachers in training emerged.

Primary and secondary music trainee teachers need to be encouraged to develop an interest in, and curiosity about, the sounds, issues and aesthetics of contemporary music. They need to be taught to seek contexts for musics which are new to them in order to make them relevant to their musical lives and to become empowered to see themselves, musicians and music educators, as part of the contemporary music ‘scene’. Teachers in training need to understand that as every school and class environment is different they must be able to understand many different strategies, ‘tricks of the trade’, which can be employed in different circumstances. Teachers in training and experienced teachers need to develop more holistic approaches to music and know how to improvise, to compose and to arrange and become proficient at all activities. They should be encouraged to place composing activities at the heart of their teaching approach and be taught how to weave skills and theoretical knowledge, aural, improvisation and performance into

composition focused lessons. They also need to understand that working as a composing teacher can be empowering for both students and teacher and that by adopting different roles – enabler, teacher as composer, teacher as researcher, teacher as student - a two-way learning results. Teachers in training need to develop a greater awareness of the optimum use of time, minimizing time spent on instruction and maximizing the time spent on student exploration, on refinement of the process and product of composition and performance and on evaluation and reflection of recordings of their own work.

10.4 Issues for further research

While several of the individual teaching strategies adopted by teachers warrant further investigation, issues are discussed below which focus on composition teaching, how teachers engage with new material, the teacher as researcher, the dissemination of findings from research studies such as this and the role of the composer in school. The approach at the heart of these suggestions is action research, often with the teacher as researcher.

The responses of the teachers as they engaged with material new to the students and in most cases, new to the them, revealed many different backgrounds and approaches leading to compositions which expanded and developed the material presented in the projects. This raises two issues - firstly, whether a study such as mine remains incomplete until the findings have been disseminated to, and read by, music teachers who could embrace those findings of particular interest and relevance and reflect on, and perhaps change, their teaching approach; secondly, it also reveals a need for action research in the classroom with teachers taking an active role in its writing up and presentation.

Reasons for differences between compositions which developed, and those which expanded and developed, aspects of a given music resource were the main focus of this study. However, the study touched on evidence of ‘surface learning’ and ‘deep learning’

(Ramsden 1992) in student compositions but did not begin to address these two styles of learning in relation to the composing process, an area requiring further investigation through action research in the classroom.

A number of studies discussed in Chapter Four, and this study, noted the advantages of students composing in groups. Through action research in the classroom, further study could begin to investigate what students learn from each other in group composing activities, determine the role of Vygotsky's zone of proximal development (Vygotsky 1978) where the more knowledgeable teach the less knowledgeable and ascertain whether this encourages students to move from surface to deep learning in composing activities. Both of these areas of research would benefit from teachers taking on the role of researcher.

The findings of this study indicated a need for teachers to become confident, not necessarily professional, composers themselves. They need to become skilled at, and knowledgeable about, manipulating sound - techniques, timbres and structures – within known styles but also experimenting with new combinations and directions. Action research with teachers attending composition workshops at intervals throughout the year, submitting their compositions and engaging in self-reflection on their progress coupled with input from the composition teacher as researcher could investigate this process.

Teachers are constantly introducing material new to the students but they work less frequently with material which has a musical aesthetic new to themselves as well. In part this study was about how teachers introduced their students to material new to both teacher and student. There is, therefore, a need for action research focused on a music resource of material different from *The Pulse Music Kit* which is new to teachers and which investigates teachers' approaches through composing activities. Drawing on aspects of Mezirow's theory of adult learning and education (Mezirow 1991) on how adults react in new situations, the study could provide a basis on which to observe and

respond to teachers experiencing new material. It would also verify some findings of this study, provide information on ways to optimize this process and through action research enact this optimization.

In Chapter Two the experiences of several composers in schools and one music teacher who learnt by observing a composer in the school, were discussed. This study has argued that the composer, through engagement with the contemporary arts, creates a dialogue with contemporary society and the role of the participating composer in schools offered several unique insights. There is, therefore, a need for research which actively investigates the roles, approaches and strategies taken by composers in schools, the effect these have on the resident music teacher and students and also what the composer learns from the classroom experience. Through action research the ideas learnt by teacher and composer in schools could be put into practice and investigated.

All of these issues for further research involve action research with the teacher as researcher, a role played by me in the Preliminary Study and to some degree by three teachers who asked students to write their responses to the project material. The teachers' interest in the responses of their students was a form of self-evaluation for the teacher not always available in the classroom. Teachers working within school environments which do not actively support music and where students have a negative attitude need to share ideas and approaches.

The range of roles, approaches and strategies adopted by teachers in the study of this thesis shows the wealth of ideas being used in composition teaching. It also revealed that teachers have valuable contributions to make to music education research and they should be encouraged to document and, through action research, explore aspects of their work for presentation to the wider music education community.