# Chapter Eight

## Interpretative reports drawn from the teachers' profiles and associated compositions

### 15 year age group

Chapter Eight contains interpretative reports of the participating teachers who engaged their students in the 15 year age group with the minimalist project material through composing activities and the associated student compositions. These reports were drawn from teacher profiles and analyses of the student compositions (see Appendix 8). Where teachers also engaged students in younger age groups, readers are referred to Chapters Six and Seven and Appendices 6 and 7.

### 8.1 Teacher No. 11 – a female music teacher in a public secondary school in Sydney, Australia (see Profile in Appendix 8)

**Education, experience, preference; teaching environment; teaching perspective**

Education: tertiary music and teaching qualifications;

Experience: an experienced teacher who had previously introduced twentieth century art music styles through music of Schoenberg, Stravinsky, Stockhausen, Bartok, Britten, Cage and Bernstein, plus Australian composers Sculthorpe, Boyd, Meale and Edwards, focused on "instruments, layers/structure, rhythm etc. in relation to elements of music [plus] tonal language influences". This integrated skills-based approach was also used in her work with musics of Africa and Asia, although by emphasising their influence on Western music, she added a contextual component.

Preference: could "tolerate pretty well anything" in relation to music styles. Distinguished between arranging music, which she undertook, and composing music

which she did not, played an instrument, sang and listened to music, read books on music and conducted;

Teaching environment: parents of the students were "working-class [from] lower socio-economic bracket". The "school [was] not academically oriented at present – not particular achievement oriented either" resulting in "poor self-motivation or response" on the part of the students. The level of musical understanding of the students was not helped by there being "no instrumental programmes in primary feeder schools (apart from a bit of recorder), not much choral work, [and] therefore only a handful have ever learnt an instrument". The abilities of students in the mixed Year 10 elective music class ranged from "quite high to very low (illiterate)". For most of the students, the previous year of elective music was "the first real music most of them had encountered [and] most only learnt to read music this year". The school offered choir, rock band and flute, drum and guitar lessons to students. Music teaching took place in a music room and classrooms. Resources strongly favoured technology – three electronics amps, three electronic keyboards, cassette, turntable, Atari computer (Notator programme) linked to Kawai K11 synthesizer - and a piano.

She ranked the New South Wales curriculum music activities by grouping them into three areas "all of equal importance", inter-related, which should be approached as "integrated study". Performance including recorder/instrument playing, singing and movement were ranked first, composition with notation skills and aural were ranked second, and musicology including listening, music history/musicology, music in society/in the community were third. Her personal ranking of music activities was specifically for "this school" and reflected the ranking she had given them in the state curriculum. Only movement which she hated was placed last.

Teaching perspective: solfa, rhythm drills and both American and English rhythm names were employed for her teaching focus on "sight singing, sight reading using glocks [plus]

lots of written work, and lots of practical group work". Assessment was required and by choice and involved evaluation of process and product through "classwork, participation, homework and testing".

### 8.1.1 Analysis of one composition, *Pentatonic Zoo*, by a student associated with teacher No. 11 written in response to the Phase Shifting Rhythms project (see Appendix 8 and CD for Appendix 8 Track 1)

*Pentatonic Zoo*, composition 11.1 written by a female student, was sent into the study on score and cassette. Employing the phase shifting process of Option A *Chitter Chat*, the four-layered piece presented different permutations of the compound quadruple cell, played on tuned percussion and developed a number of the parameters introduced in the mode.

Instrumentation: The piece was performed on metallophones, a development of the voiced chanting or untuned percussion suggested in the project.

Metre: The choice of compound quadruple time signature was a development of the simple quadruple time signature of the model.

Pulse: The introduction of a quaver pulse on low drum in the recording but not the score, represented a development from the project model.

### 8.1.2 The approach and strategies of Teacher No. 11 in facilitating student composing activities with the Phase Shifting project

Teacher No. 11 noted that the project material would be "very useful in the kind of structure I have used previously, [and] particularly compatible with the proposed course I will implement using the computer". She engaged the students with three projects – Phase Shifting, Canon and Phase Shifting melodies over a ten month period within four or five lessons, plus homework!".

She noted that the Phase Shifting project shared common ground with previously undertaken work with "a) untuned and b) tuned percussion 'scores' – simple ostinato-type things – also pentatonic work along the same principles". Her skills based objectives - "revision of rhythmic concepts, groupings; performance – reading the score, facility; aural awareness – recognition of patterns, feeling of pulse etc.; composition – using a formula; and incorporate revision of pentatonic scale" also included a musicological contextual "introduction to [the] concept of pulse music". She noted that these objectives were quite well achieved.

Teacher No.11's responses to the questionnaire focused on their work with composing activities. Students heard the pulse music examples included in *The Pulse Music Kit* and played pieces from the project from notation. The teacher wrote compositions which were then developed by the students, thus engaging all in 'composition by committee'. Through improvisation, "the class experimented with making their own rhythmic and melodic motives to use" and then composed from symbol to sound as "hopefully by Year 10 they are infusing these patterns so they can conceptualize sound from symbol", creating their own pieces. "The students made suggestions re rhythmic and melodic content and organisation. Also when the pieces were played, they made suggestions as to which lines should be more important etc.".

The teacher considered composing was an incentive to the students' learning as "they seem[ed] to enjoy this because they can handle it and also they see the results fairly quickly" – an empowering experience. This engagement in instant composition by both teacher and students took place during two 50 minute class periods, writing "in their books and on the board".

Composition titles were an incentive and the title of composition 11.1, *Pentatonic Zoo*, came from the animal names used by the class for rhythmic identification - "mon-key,

mon-key, el-e-phant ant" (  ). This composition submitted as a score in the student's hand, was played and recorded. Students performed from notation, with "some weaker students simply play[ing] layer 1, repeated over and over from memory". The teacher "played one of the lines" which played a conducting role and a quaver pulse was adopted as it was found to be easier keeping the ensemble together than a dotted crotchet pulse. She noted that the cassette player was always useful for its holistic evaluative role as it "gives [the students] a goal, enables them to hear the whole, not just their bit". In the recorded performance of the four-layered work on glockenspiels and low drum the phase shifting was audible but rotation of the four different layers was not accurately played. Teacher and students responded positively to the project material.

In this project several approaches to composition were adopted - class composition, composition by committee, empirical composition and instant composition plus her own involvement in the composing process as performer and creative decision-maker, drawing on 'the composer within the teacher' by writing pieces which the students developed, several approaches to composing were adopted. This encouraged student input allowing students to learn from each other and take part as creative participants and decision-makers. She responded to the different ability levels of the students. The cassette of excerpts provoked different reactions from the students and fuelled discussion.

### 8.1.3 Analysis of one composition, 11.2, by students associated with teacher No. 11 written in response to the Canon project (see Appendix 8)

Instrumentation: Composition 11.2 was not recorded and no instrumentation was named however, it was not written for voices, a development beyond the vocal writing of the project models.

Construction: The project models both employed a phase shifting or music weaving process which supported the canon. Composition 11.2 simplified, and at the same time developed, this combination of processes by using canon and two interlocking ostinati.

### 8.1.4 The approach and strategies of Teacher No. 11 in facilitating student composing activities with the Canon project

Teacher No. 11 chose to work with the Canon project over three or four lessons after completing work with Phase Shifting. At the same time, she took the opportunity to introduce students to computer notation and composing through a keyboard into a computer. The project material provided common ground with previous work undertaken by the class in relation to "invent[ing] a tune that works as a round – chord structure etc" and taking "a known tune, add[ing] rhythmic and melodic ostinati [for] class performance" through performing and composing activities. Objectives were focused around process and structure, "develop[ing] concepts of polyphony, ostinato, canon", "work[ing] on [an] Atari Computer to continue to develop skills" and composing "a canonic melody i.e. one that lends itself to canon or round".

Students began by singing and playing simple rounds and canons. The canonic process, other imitative forms and linear concepts were observed in other compositions. Using the folk song *Land of the Silver Birch* as an example, students started to write their own pieces. Working with empirical composition from sound to symbol, students improvised ostinati on glockenspiels, guitars, keyboards, electric bass, untuned percussion, creating "twelve layers in all". The teacher noted that "working within a set implied harmonic structure was quite useful" as a composition task, and she conducted and played, keeping the pulse which held the playing together. Over two periods, through class composition, they "put together the ostinatos" and then notated their ideas onto a computer, the computer click slowed down being the pulse. She noted that she helped the students "get" the composition, 11.2, into the computer, the computer-generated score, at times, requiring quantizing to make the four canonic layers visually the same. The pentatonic canon and ostinati followed the process of *Three O'Clock Canon*, the project model.

Her role with this project began with creative involvement as player and composer, similar to her work with the first project. However, with the introduction of the Atari Notator programme and the learning curve required, the teacher became instructor and decision-maker, but also a student herself as she tried to master the computer notation software. Her work with students on the Canon project became more teacher-centred. Despite the familiarity of the canonic process, the questionnaire responses moved from the inclusive "we", to "I" as, over a short period of time, she introduced the students and herself to the software programme. By her own admission, "we never got to really finish this [project] properly – score not properly edited, no tape. Sorry".

Although she responded positively to the project material, Teacher 11 wrote that the students felt that their work with the project "was a bit too simple, and we did not get the chance to develop the ideas the way I intended". Her use of the first person "I" throughout the responses to this project, indicated that her own learning curve with the Atari Notator programme took more time and focus than was originally envisaged.

### 8.1.5 Analysis of one composition, 11.3, by a student associated with teacher No. 11 written in response to the Phase Shifting Melodies project (see Appendix 8.1.ii)

Register: Realised through the computer, both layers of composition 11.3 were written in a high register, a development of the treble and bass clef range of the models.

### 8.1.6 The approach and strategies of Teacher No. 11 in facilitating student composing activities with the Phase Shifting Melodies project

While the students had previously undertaken melodic work, Teacher No. 11 noted that "they had not tried to structure melodies with melodies in this way". Her objectives for this project combined common ground knowledge with new concepts, and included "structuring sensible melodies of different phrase lengths [and] structuring different melodies, sensible in themselves, that work when combined", the concept of polyphony.

Students were to consider "rhythmic balance [and] choos[e] different tonal centres 'modes'" other than C within which to "orient" their melodies. Again, facility with the Atari Computer Notator programme was an objective.

With the third project, Phase Shifting Melodies, the teacher's knowledge of the computer software saw a return to her student-centred approach, guiding students with the computer but allowing them to learn through keying in their compositions. She began with the students playing examples from the project, discussion of "polyphony, phrasing", improvisation, empirical composition, to computer notation and editing. After singing polyphonic choruses, and playing some of the pieces from the project, the students took part in instrumental activities involving melodies in combinations whereby, "using glockenspiels they initially had to invent a motive and then maintain it while other students improvised above it". The students chose to work in pairs "and it worked well". Because not all students could work on the computer at once, students worked at different stages of the composing process. Working from sound to symbol, they "created their melodies using glocks, then tried to notate them…then play[ed] them into [the] computer and edit[ed] the notation". With both layers employing a high register, composition 11.3 reflected its origin on glockenspiels.

Despite only one student having keyboard knowledge, all of the students "played their own compositions in, initially". The computer kept time and generally the students followed the pulse well. The teacher wrote that the compositions did not take long to write, however "some compositions did not go on to [the] computer too well because of the student's technical limitations". The computer provided a "very useful" opportunity for "instant feedback" about their work.

The teacher helped students with rhythm but did not take part in the composing process herself, and "tried to keep out of" the computer notating process. She responded positively to the project material. The students responded positively to the project

material and enjoyed composing activities which combined phase shifting melodic process and computer activities.

After completing work with the project material, the teacher noted that she had had to make room for the projects in the usual music programme, at the same time stating that it fitted in and "was useful, very useful for what I was doing in terms of the curriculum". On reflection, her integrated approach precluded her objective of contextual discussion about minimalism.

Teacher No. 11's approach to introducing the students to the three projects from *The Pulse Music Album*, was largely student-centred combined with her own learning with, and from, the students – the teacher as student. Teaching students who were taking music as an academic subject yet were new to the skills and knowledge of the subject area, she adopted a strategy with each project which moved from listening to, and playing, 'models'; discussion; improvisation leading to empirical composition based on prescriptive task designs based on the project models; notated composition; performance; recording on cassette or computer; and evaluation.

Over the three minimalist projects she moved from a student-centred approach with Phase Shifting, to teacher-centred with Canon, back to student-centred with Phase Shifting Melodies. A student-centred approach was also reflected in other ways - first, she commented on the need to remain flexible when working with these students and that she never planned music lessons in advance – "not in this school. With these kids it is better to let things move along as they happen". Second, this flexibility saw her interrupt the project material for three major school concerts which required rehearsal preparation and which disrupted lesson time. Thirdly, she always worked from the common ground of material known to her and the students, through to the less familiar or unfamiliar. And finally she began "the actual composition process … with the kit but led to other things more in their line of interest e.g. we went on with the song writing and then blues

improvisation, where they basically spent the rest of the year". Students liked the "melodic" projects best and she allowed the students to lead the pace and direction of classroom composing activities away from minimalism, using the projects as a starting point rather than a goal.

She expressed an intention to use the projects in the future, preferring to pick and choose the projects rather than treat them as a sequential package, pointing out that this was what the album instructions stated. She commented on the pulse music examples included in the kit being "much too short to give a fair rendition of the effect of a composition in this style" and felt they were more suited to primary level, 9-12 years, than secondary level.

## 8.2 Teacher No. 33 – female music teacher in a Sydney selective public high school (see profile in Appendix 7, associated compositions in Appendix 8 and CD for Appendix 8)

**Education; experience; preference; teaching perspective;**

See Chapter Seven

Teaching environment: musically able students in a "top stream" music elective class with a 50/50 gender mix. All played an instrument to a level of reasonable proficiency, most participated in bands, chamber groups, or vocal ensembles, choirs at school, and some had achieved high grades in practical music performance through the Australian Music Examination Board.

### 8.2.1 Analyses of five associated student compositions in response to the Phase Shifting project (see Appendix 8 and CD for Appendix 8 Tracks 2 - 6)

Structure: Four of the five student compositions employed an additive phase shifting process. Compositions 33.8 and 33.10 systematically added phase shifted repeated layers and ended abruptly after all layers were sounding. Composition 33.9 and 33.12 added and subtracted phase shifted layers, the second in the shape of an inverted triangle.

Composition 33.9 phase shifted a cell in 6/4 metre containing one sounding crotchet layer by layer, and after repeating the six permutations three times, proceeded to subtract the layers from the first to the last. This resulted in a symmetrically structured composition. The structures of these four compositions expanded those presented in the project.

Time and effect: By phase shifting a cell with only one sounding crotchet value, composition 33.9 adopted a truly minimalist rhythm pattern and intensified the minimalist effect.

### 8.2.2 The approach and strategies of Teacher No. 33 in facilitating student composing activities with the Phase Shifting project

Teacher No. 33 introduced students to material from the Phase Shifting project over five 40 minute lessons per week in music. Of the five compositions submitted for the study, three (33.8, 33.10 and 33.12) were at a similar compositional level to the 12 year students' works. Composition 33.11 for two hand clappers, I found to be too similar in timbre to successfully distinguish, and therefore transcribe, two layers of changing cells. It bore similarities to the fourth composition on a sheet submitted by the teacher and as it was performed in the order outlined on the sheet was possibly this piece. Composition 33.9, a well performed, symmetrically structured work which, through the choice of rhythmic material, combined additive and phase shifting minimalist techniques, represented a sophisticated expansion of the ideas presented in the project and adopted by students of Teacher No. 33 in either age group. The text of composition 33.10, *I like chocolate,* drew the student's interests and therefore student society into the composing process.

Teacher No. 33, again, worked as a student-centred enabler, adopting an integrated teaching approach with the 15 year age group in which she incorporated a strategy sequence and a multi-model composition task, similar to that used with the 12 year age

group. The interpretative discussion about this teacher in Chapter Seven is applicable for her work with these older students.

### 8.3 Teacher No. 60 – a female music teacher in a public secondary girls' school in Sydney, Australia (see profile in Appendix 8)

**Education, experience, preference; teaching environment; teaching perspective**

Education: tertiary qualifications in music education and English;

Experience: experienced teacher who had previously taught twentieth century art music through an 'integrated' rather than an historical approach whereby works by a number of twentieth century composers were studied for "common threads". Students in non-elective music classes were introduced to Vietnamese, Greek, Indonesian, Indian and Chinese music. Senior classes "sing, dance, play, explore features and origins" through the music of Scotland and Jamaica, and African music in relation to jazz;

Preference: preferences were wide ranging including popular, art and folk music and personal music activities included writing and arranging music;

Teaching environment: a Sydney public secondary girls' school drawing largely on a multi-cultural school population from a lower socio-economic group which was becoming "more financially secure". Quite a sizeable proportion of the students "live in poor accommodation and very few have the luxury of private lessons whether in music or whatever". The school had a multicultural mix, with "roughly 80% [being] first generation Australian, their families most often coming from Lebanon, Greece, Vietnam" and "traditional values firmly define the girls' roles". Head of the school was sympathetic to music and over the years a strong music department had developed "via musicals, choir, dance troupe, band etc.". Students involved in "a wide range of community activities" including a regional choir and noted that "while few learn an instrument outside, the ethnic background of most students encourages them to express

themselves in song and dance". With three music rooms and a wide range of instruments and music technology including Atari 1040 S1 Computer and Notator software, the school was well-resourced. Four 40 minute music lessons were given each week.

Most of the twenty students in Year 9 elective music class had a "previous background of music and can read simple music" and were "(mostly) bright though technically mixed ability".

Teaching perspective: ranking of music activities in the New South Wales's curriculum placed practical activities of instrument playing, singing and improvisation, composition and arranging first. Her personal ranking of music activities was very similar with movement given a higher ranking and no mention of composition. Her teaching method through "a varied assortment of styles and approaches" and "a mixture of cultural/historical traditions" but always with "theoretical concepts realised through [practical] experience" reinforced the high ranking of practical activities. Every lesson included "a mixture of listening, playing, composing and discussion/learning", working with "sound first, theory later", often with graphic notation to facilitate recording ideas, and some "Orff work".

Her teaching philosophy, (see Appendix 8 "Credo") included values with an intrinsically musical focus – for example, listening with purpose, discrimination and concentration, discovering the fun of making music; social and moral values - the "beauty, mystery and emotiveness of music [which] may not only enrich their lives but inspire a revelation about the fundamental nature of life itself" and the need for "humaneness" with ensemble work an opportunity for co-operation and tolerance, "providing the microcosm of the ideal society". Self-expression and realisation needed to be developed through the individual working "at their own rate of progress". She saw herself as a catalyst to the student actively enjoying music and the 'credo' illustrated how teachers bring their beliefs and values about music to the classroom.

Writing of her classes as “student centred”, Teacher No. 60 described a teaching approach which drew on a predominantly group process model, whereby learning occured as a result of the students’ interaction with other people. Through singing and instrument playing, “each [student] is encouraged to work step-by-step as an individual and to participate in ensemble work. Group work is much used” for playing, discussing, analyzing and composing. A student centred approach was reflected in her ability to devise most tasks “so that they [can] be accomplished on any one of several levels – so the slower or novice student can achieve something, but the more advanced student can fully utilise their skills and knowledge”. The teacher preferred the use of “letter names to increase [student] pitch awareness and accuracy” and wrote that if she had the time, would like “to develop the students’ ‘perfect’ pitch”. As well as self and peer assessment, the teacher evaluated both student process “by discussion, by comparison, by watching their response, by seeing their success or problems in revision tasks” and product “by grading compositions, performances, listening exercises and the very occasional ‘exam’”.

### 8.3.1 Analyses of four compositions of students associated with teacher No. 60 written in response to the Phase Shifting Rhythms project (see Appendix 8 and CD for Appendix 8 Tracks 7-10)

Structure: Four of the five compositions submitted for the study on cassette, 60.1, 60.2, 60.3 and 60.4, showed an understanding of the principle of phase shifting, but a lack of understanding of the counterpoint achieved by keeping one cell constant while [the] other part(s) moved. They were all single line, unison performances played on untuned percussion instruments with a sounded pulse providing a ‘simple’ contrapuntal texture, in which the first cell was repeated a number of times but subsequent phase shifts were played once. While this structure and use of the process was different from that of the model, it could be described as neither an expansion nor even a development but rather a retrograde move due to misunderstanding the original process which negated the minimalist aesthetic.

Metre: Use of 5/4 metre in compositions 60.1, 60.2 and of 6/4 in 60.4 represented a metric development of the project's compositions.

### 8.3.2 The approach and strategies of Teacher No. 60 in facilitating student composing activities in response to the Phase Shifting project

Teacher No. 60 planned to use all the projects as did a teaching colleague in the same school, fitting them in to the curriculum by creating "a special place" for working with the series of projects as a separate unit. Meanwhile "other classes will have ideas adapted from the project to reinforce or introduce pitch, rhythm and structural concepts". She noted that the projects were "exciting and practical" and looked forward to using them. Over six lessons the teacher introduced students to material from the Phase Shifting project and a combination of Music Weaving and Phase Shifting Option B.

Students worked with the Phase Shifting project through listening, playing, class composition, small group composition, playing and taping student compositions over two lessons. The teacher common ground for the students through "reading, clapping, playing on xylophones rhythms devised by students", all skills-based knowledge. Some objectives were focused on student confidence through composition and performance, others were concerned with revision of "sight-reading of simple rhythms" and student response to "gradual shifts in accent".

Students had responded negatively to hearing the excerpt from Reich's *The Desert Music.* Taking the role of instructor and drawing on her writing and arranging experience, the teacher "first played [an] example adapted by myself from [the] album", then working from symbol, "adapting notation if difficulties arose", "students composed [a] piece together as a class, [and] small groups composed pieces", taking one lesson to write them. The teacher appreciated this instant composition and noted that "a simple formula …encouraged all students to participate in composition". Instruments were chosen to vary the tone colour, making "the piece more enjoyable to the students who enjoyed

hearing the increasing tension and move towards resolution" during the phase shifting permutations.

Despite her acknowledgment of gradual shifts in accent, a characteristic of some minimalist music, the teacher appeared to have misinterpreted the phase shifting process. The negative response of the students to the project was also partly the result of performing difficulties encountered. Splitting the crotchet unit into two quavers "proved a big problem in the permutations" and "next time, we'd keep the two quavers as a single unsplittable unit". The teacher counted aloud, then silently and later students kept their own pulse, although this was not always accurately kept. On the cassette, students counted the players in and often chanted French time names to guide rhythmic accuracy. Recording pieces and hearing them back "gave [students an] impetus lacking earlier and they heard the need for accuracy. Re-taping and polishing was very valuable though we lacked time to do so properly".

The teacher expressed disappointment "that the students laboured more than expected with accurately playing rhythms", and while most could play accurately, those that could not resulted in "a muddy sound where the rhythmic changes were obscure and in consequence, meaningless". This difficulty with playing the permutations of the phase shifted cell, the time spent on it handling the rhythms, and the less interesting compositions caused by a misunderstanding of the process and structure resulted in the piece sounding "simply boring to the students" and "they yearned to play a tune".

### 8.3.3 Analysis of one class composition of students associated with teacher No. 60 written in response to a combination of Music Weaving and Phase Shifting Option B (see Appendix 8 and CD for Appendix 8 Track 11)

Structure: Composition 60.5 by the whole class, began similarly to compositions 60.1 to 60.4, with the whole pattern played twice, "then each student repeated any bar as often as they chose. After [a] beat on tambourine, all gradually progressed to last bar. Another

beat all played it in unison". This structure was similar to that of Option A *Chitter Chat* and Option B *I think it's going to rain* from the project. An improvisatory aspect involving choice on the part of each student and the use of tambourine beats as conductor or section guide reflected aspects of the Music Weaving project. The rhythms were played on untuned percussion instruments and to make "the piece [come] to life" the teacher added "an improvised melodic, harmonic part over the top" on the piano. This combination of slow moving, improvised tonal harmonies with phase shifting process within a 'framed' structure represented an expansion of the model compositions in both projects.

Instrumentation: Use of the piano in 60.5, combined with phase shifting untuned percussion, was a development of the instrumentation suggested in the projects.

### 8.3.4 The approach and strategies of Teacher No. 60 in facilitating student composing activities in response to a combination of Music Weaving and Option B of the Phase Shifting project

For this project material, Teacher No.60 noted common ground at a general music activity level with previous composition work composed and played by students, and exercises completing bars, but also at a structural level – "rounds using students' names for rhythms". She also observed that it was "different in many ways too!". Objectives were again focused on revision and aural analysis of the phase shifting accents, and composition focused on rhythmic manipulation with melodic work "abandoned as [the] whole class could not participate accurately enough".

Over three lessons, the teacher involved students in improvisatory activities involving repetition, "echo clapping, melody repeating" and experimentation with instrumental timbre. Composing was undertaken from symbol and drew on the common ground of revision - "we compose usually the other way around, but this was more convenient for

quick revision of sight reading and time signatures". Discussion was centred around the common ground of "contrast and unity (concepts recently done in class work)".

In the objectives outlined for this project, the teacher wrote a one bar, four note pitch set, 5/4 melodic cell for sight reading. However, when the students composed a piece as a class over one lesson, they simplified this melodic version by omitting the pitch set. She noted that "the simplicity of the model …did encourage students to compose, likewise the instant feedback", thereby acknowledging instant composition based around an easily understood composition task design which resulted in immediate evaluation.

Aspects of improvisation became an integral part of the class composition during the process and in the final product. To bring the piece "to life", the teacher added an improvised tonal melodic and harmonic piano part to rhythmic layers which "the students felt …was a bit boring" and the piece ceased to be an exercise and became "'real' music".

Playing from notation, by ear and increasingly on memory, students at all notation reading levels were able to take advantage of the structure they designed in which "they could repeat any bar ad nauseam until … really secure [with the rhythm] and this was useful to their ego and sight reading skills". The teacher noted the advantages of students hearing "the effect of the whole" piece from a recording thereby recognising the need to appreciate the aesthetic achieved. She drew attention to the students' delight in "hearing something they have done – tangible achievement", self-esteem through personal satisfaction with one's own compositions. The recording also enabled them "to trace some individuals' path to the end", thereby giving students the opportunity to hear their compositional process through their performative process, an aspect of minimalism discussed by Steve Reich in Chapter Three.

The students responded more positively to this project than the first, focusing on the rhythmic variations and mostly finding "their satisfaction in listening to that". The teacher was "eventually" able to respond positively to the project material.

Teacher No. 60's work within a predominantly group process model was evident throughout her engagement with the two projects. While she did not engage students with all of the projects as originally planned, and her colleague did not work with any of the projects, she adapted to her growing understanding of the difficulties inherent in playing and developing the minimalist compositional techniques by "mak[ing] room" for the material in her curriculum and stayed working through ideas from two projects. Introducing the students to these difficulties early in the year meant that they "largely hadn't acquired elemental skills in sight-reading [required for the project material] and were just anxious to be able to perform/read traditional music". This insight into students' notation reading preparation and their readiness to accept a new musical style were important for her future use of the projects which she planned to incorporate into Year 12 work.

The teacher noted the benefits of students hearing their own recorded compositions, of them undertaking activities and carefully planned her work with the project material in advance. However, a number of factors worked against a more positive response to the project material on the part of teacher and students. First, work with the phase shifting project where she adopted an instructing role, indicated a misunderstanding of some of the processes of phase shifting and the resulting 'rhythm only' student compositions were insufficient in aural satisfaction to fully enthuse and therefore engage the students. Second, she acknowledged that "tasks which seemed simple needed more preparation than I had expected in enabling the students to complete them". Third, she adopted a largely instructing role, at the same time employing aspects of student-centreness through her interest in student responses to their music making. Fourth, she noted twice in her questionnaire responses that "many [students] hated overall pulse examples and

unfortunately this made them unenthusiastic about trying pieces using similar techniques". This last factor resulted from a heavy emphasis, within her 'integrated approach', on revision and introduction of separated skills, illustrated by her comment that "we were looking at harmony later in the year".

Working as a teacher as student through composing and improvising, the teacher as composer, Teacher No. 60 continued to develop the understanding of her students over a short period of time and develop her own understanding of the project material, the teacher as student. The teacher's understanding of Option B in Phase Shifting enabled the students to develop a piece, 60.5, which combined improvisatory aspects of Music Weaving structure through sounded signals, with phase shifted permutations of the original cell. This expanded the models in both projects and resulted in a higher level of student interest and enjoyment with the material.

Comments made in relation to recording student performances and strengths of the project indicated her increasing understanding of minimal music and the minimalist aesthetic. From past experience she wrote that taping compositions "was a great incentive for students to polish their work" and concentrate on the overall effect created "instead of just hearing their own part – so vital for Pulse Music". She had noted the increasing tension and move towards resolution within the phase shifting process. One of the strengths of the projects was that they gave students "who are a bit more sophisticated or who have had a chance to play and sing traditional music", a chance to "make them more perceptive and innovative as listeners and composers". This understanding of the different contexts of the traditional musics of her multicultural students and that of a contemporary music new to the students (and teacher) would in the future, balance skill-based work.

Teacher No. 60 was very positive about *The Pulse Music Album* and wrote that "the ideas

are great". She did not feel they should be used sequentially as "students tended to find a bit of Pulse Music went a long way [while] more senior classes could probably benefit from a concentrated course". Lack of precision in playing the rhythms which "made pieces very unaesthetically satisfying" was a problem which would need to be resolved in future work over a longer period of time.

### 8.4 Teacher No. 73 – a male music teacher in a 'disadvantaged' secondary school in coastal, New South Wales (Appendix 8)

**Education, experience, preference; teaching environment; teaching perspective**

Education: arts and music qualifications;

Experience: an experienced teacher, he "usually" introduced students to twentieth century techniques through graphic notation, "a legacy of the George Self, John Paynter "exploring sound" school which I used almost exclusively in my first years of teaching". He found "graphic sound composition … very useful at this beginning stage of musical experience [and] used [it] as a means of establishing performance techniques on tuned percussion". Also "simple performance skills such as dynamic variation, tempo variation, textural variation, exploring and contrasting timbres" were encountered easily. He also noted that he "had to place [graphic sound composition] into perspective alongside the much greater tonal tradition of music". With senior classes through compulsory topics in the HSC syllabus such as "current survey" and "20$^{th}$ Century Looking Back", students dealt more specifically with twentieth century works and composers and the ABC 6.30 *Meet the Music* concert series was regarded as "a good resource".

Students were introduced to music of Indonesia, Africa and Latin America through practical projects. An awareness was expressed of the cultural context of all musics - "much of the lesson material (although not all) comes from the current culture or is of no specific style at all (elemental music in the style of Orff using ostinato, bass line, modal

melodies and simple chordal major and minor patterns)". This integrated approach to music of the culture of present day society was applied to "jazz, some rock, Latin American, ethnic, folk, twentieth century composition" and "all styles lend themselves to improvisation".

Preference: personal musical styles preferences were very eclectic and wide ranging and personal music activities included writing, arranging and improvising.

Teaching environment: secondary school classed as 'disadvantaged' by the education department, situated in coastal New South Wales in an area of mining and electricity industries which drew on a large population of students from working class, often single parent families, with high unemployment. Despite this classification, the school had been named as "a designated school of excellence in music" through his work and that of his colleagues who had "pioneered many aspects of practical music making in the classroom, following Orff-based methods, [plus] a growing instrumental program, concert bands etc.".

School had a strong interest in music, was well resourced with "most things from tuned percussion, timpani, synthesizer, congas, bongos etc. Latin percussion" and two music rooms and one portable classroom were designated for the subject. Many music activities in the NSW music junior and senior curriculae were considered to be linked and "were of equal importance in the final analysis however I begin with improvisation".

The Year 10 mixed ability elective music class of students aged 15 to 17 years was one of two in that year and consisted of ten students with mixed abilities, four boys and six girls. Their background had comprised "four years of practical music making [and] most have participated in music camps, concerts, attendance at Opera House concerts". Of these ten, "approximately five are highly motivated musicians attending two night rehearsals

per week, performing and composing". Five periods of forty minutes each were devoted to music each week.

Teaching perspective: embraced "a rejection of the traditional methods of teaching that placed great emphasis on teaching specific classical works and composers (the historical perspective) the basic repertoire" and moved towards working specifically with "the elements of music. Lesson material chosen on the basis of how well it can be adapted to classroom performance, improvisation and analysis", therefore it is just as relevant to work with the samba as it is the fugue. If a style or musical period is not covered "it doesn't really matter". This integrated approach reflected and suited his own eclectic musical style preferences. Educational aims emphasised practical and skill-based music lessons; the introduction and combination of a wide range of music activities within each music lesson; and presentation of material through music lessons "in logical sequence from simple to complex; from known to unknown". Assessment was required and by choice involving evaluation of process and product, plus peer-assessment.

### 8.4.1 Analysis of six compositions by students associated with teacher No. 73 written in response to "the techniques of the kit" under the Phase Shifting/ Phase Shifting Melodies project titles (see Appendix 8 and CD for Appendix 8 Tracks 12 - 17)

Structure: Composition 73.1 for tuned and untuned percussion, was a multi-phrased work with an introduction. During the series of eight bar phrases, percussion instruments entered, exited and combined playing ostinati over a continuous pulse resulting in a textural, timbral and dynamic shaping over the piece's 1'30" playing time. The structure greatly expanded that of any presented in the project material and illustrated the teacher's resolve "to reduce the techniques of the kit to one work".

Compositions 73.2, 73.3, 73.4, 73.5 and 73.6 were, structurally, pastiches of *Lazy, Lazy Boat* from the Phase Shifting Melodies project. The first two compositions employed the five plus four bar phrases of the project model while the inaccurate performance of 73.4

resulted in a transcription attempt which did not reveal the length of the two phrases. Compositions 73.5 and 73.6 combined three plus four bar phrases, a development of the project model's phrase length.

In composition 73.3 both phrases ended with the same bar which resulted in a 'neat' unison conclusion to the piece, an expansion of the ending in the project model.

Metre: Compositions 73.2, 73.3, 73.5 and 73.6 were in simple quadruple metre, a development of the simple triple and compound duple metres of the models in Phase Shifting Melodies.

Rhythm: In composition 73.6, a tied syncopated rhythmic figure resulted in a jazzy feel, an expansion of the untied quaver, crotchet and minim rhythmic movement of *Lazy, Lazy Boat.*

Mode: Composition 73.2 employed the phrygian mode, a development of the bi-modality of the project model.

Harmony: Compositions 73.4 and 73.6 employed two pitches in the lower part, a development of the single-line phase of the model.

Melody: In composition 73.3, two ornamental figures, slide and tremolo, were used which expanded the melodic figuration of the model. Composition 73.2 employed a melodic sequence in the lower part, an expansion of the through-composed phrases of the model.

Style and feel: While the flowing feel of *Lazy, Lazy Boat* was reflected in compositions 73.2, 73.4 and 73.5, the jazzy syncopated feel of 73.6 and vigorous, animated style of 73.1 and 73.3 expanded beyond that of the model.

Aesthetic: Composition 73.1, with layers of ostinati entering and exiting at a crotchet pulse of c.130 of one and a half minutes, resulted in a recognisably minimalist composition.

### 8.4.2 The approach and strategies of Teacher No. 73 in facilitating student composing activities in response to "the techniques of the kit" under the Phase Shifting/ Phase Shifting Melodies project titles

Teacher No. 73 noted that the project material would fit into the current curriculum, and planned to "reduce the techniques of the kit to one work using a combination of the shorter examples and then make an attempt to relate those techniques encountered to a specific work or works in the repertoire". He felt that "realistically" from 5 to 10 lessons could be spent on any one topic at senior level, 1 to 4 lessons at junior level, and was aware of the balance between time, the resulting quality of work and sustaining students' interest within the time frame. He also noted that "it is …important for the performance to be pleasing musically".

Teacher No. 73's responses focused around work with Year 10 students of this age group. However, he also sent submitted two compositions written for the HSC music composition examination by senior students and these are discussed in the18 year age group in Chapter Nine.

Over 10 lessons he introduced students to material from two of the projects – phase shifting rhythms, and phase shifting melodies, which he did not use "as an involved integrated process" as originally planned. Students listened to parts of the kit tape, aural analysis, score reading and discussion of how "minimalism highlights the nature of change in music" and discussion of a recent Reich concert. Instrumental skills were employed when playing pieces from the projects, in improvisation plus playing compositions and recording. He noted that the material was familiar and planned a "practical project based on musical skills involving the elements of music [with] creative input". Objectives were "to link a practical component with the listening to music [and]

to provide composition techniques that are accessible to this age group". He noted that the project work related to mathematics through the techniques employed.

Playing "by ear and/or notation", students played "phase shifting and add and subtract techniques as outlined in the kit for both junior and senior classes. I also perform Riley *In C* from the score, and Reich *Clapping Music* from the score". This introduction to a number of different minimalist processes was followed by improvisation, experimentation leading to composition within a time limit as otherwise "many pupils will take too long". "Each group had to come up with a product within 80 minutes ready for taping [and] the emphasis was on getting a result quickly". The CD of Reich's *Drumming* was played and he "attempt[ed] to single out some of the techniques used in this work for performance. Students can become quite involved with the music [and] many [students] sat on the floor with the lights off and found it totally acceptable and interesting". This acceptance of the minimalist aesthetic was reflected in one of the six compositions submitted for the study, 73.1.

Some pieces required conducting by the teacher, others not. He noted that recording student work "always puts them on their guard and gets better results". Some students found the minimalist projects "a little boring at the start", but overall they enjoyed working on the project. He wrote that "this class is probably a bit casual with regard to practical projects". The teacher enjoyed working on the project.

Teacher No. 73's student-centred approach to teaching was illustrated in a number of ways. First, his educational aims which focused on engaging students with logically presented material through a variety of music activities within one teaching module, and skills which he noted allowed new material to be fitted in more easily "than if you are dealing with a fixed body of factual information". Second, the integrated approach to music teaching he adopted and the flexibility with which he was able to plan lessons from one week to the next. Third, the strong and successful junior music programme the

teacher and his colleagues had put in place within the school not only achieved teaching recognition but ensured that the Year 10 elective music class had had four years of practical music making. Fourth, he expressed an awareness of time with regard to understanding the need to keep students interested and because "you only have a short period, one to two weeks on any activity before you have to change an activity", he introduced students to minimalism through a range of music activities. Finally, his emphasis on practical music activities was demonstrated by student improvising and playing activities based on the Orff approach, the school instrumental programme coupled with good school instrumental resources and through composing activities where the students performed their own works.

He was an enabling teacher and this was coupled with his own experience with composing, the teacher as composer. Exploring the creative material first, he planned to combine a number of ideas from several minimalist projects in one teaching module and realising it on a smaller scale through two projects. His ability to adapt material to different student levels was illustrated by use of graphic sound composition and the flexibility with which he drew on different minimalist processes. By working in groups, students learnt from each other during the composing process. Finally by trusting the students' creative decision-making, the teacher's encouragement resulted in compositions which, while mainly structural pastiches of *Lazy, Lazy Boat*, moved beyond the mood presented in the models through expansion and development of instrumentation, tempo and ornamentation, capturing in one work a truly minimalist aesthetic.

Teacher No. 73's beliefs and values about music were clearly demonstrated in his eclectic choice of music for the classroom, and his acute awareness and acceptance of music of contemporary culture as being as culturally contexted as, for example, music of Africa. By encouraging students to attend a Reich concert and stimulate discussion of the event, he placed minimalism in a contemporary cultural context and in doing so, was bringing "the historical perspective" of which he wrote, up to date, making students' engage with

contemporary society through the contemporary arts, thereby allowing students to successfully engage in the art that is *most* relevant to us…that of our own time. He was also aware of how teachers need to keep up to date with their understanding of contemporary culture through resources such as *The Pulse Music Kit* in order to be able to teach it convincingly.

The teacher noted that while the project material had a number of positive aspects, he proposed "a link with technique and actual work" by minimalist composers would be helpful. He found the material accessible but that it would be "difficult to sustain all the projects on one composition style" with students whom he now found "want traditional listening lessons, Western tonal tradition, the symphony etc. [because their] curiosity has been aroused…". His own flexible teaching approach and ability to adapt material allowed him to view the projects as "appropriate for all ages primary to senior secondary". His future use of the material would "probably" be a minimalist unit every year linking "specific composition techniques with a specific composition, creating an active, aroused listening experience e.g. 1. Here are some techniques to use; 2. Here is a musical example from the real world".

## 8.5 Teacher No. 76 – a female music teacher in a 'disadvantaged' public secondary boys' school in Sydney, Australia (see Profile in Appendix 8)

**Education, experience, preference; teaching environment; teaching perspective**

Education: tertiary music teaching qualification;

Experience: experienced teacher who had previously taught composing activities in serial, Impressionist ("whole-tone melodies"), and minimalist styles and "also in the style of Stravinsky". Both "classical and pop" minimalist composers were introduced to the students – "*Merry Xmas Mr. Lawrence* by Sakumoto (film), *Zoolook* by Jean Michael Jarre and 'Floe' from *Glassworks* [by Philip Glass]". Students had worked with music by two Australian composers, Peter Sculthorpe and Richard Meale. In all cases the

composition was combined with analysis and music history. Students were introduced to music of other cultures through links with Western art and popular music. African music, for example, was linked to the origins of jazz, Jamaican which "ties in a lot with African [music]" was used as a basis for reggae, and Spanish music through Spanish art music composers such as de Falla.

Preference: wrote and arranged music. Music preferences focused around a range of contemporary musics – classical, pop/rock, minimal music – plus music of other cultures. She, therefore, valued the minimalist project material for its relevance to her own, and her students', musical preferences before choosing to take part in the study.

Teaching environment: Sydney boys' secondary school "classed as 'disadvantaged' with government funding to "implement special projects to help overcome social, cultural and economic problems". Many of the students came from "a non-English speaking background [with] more than 20 different nationalities in the pupil population". This was "particularly important on how they perceive life and school" and she encouraged students to bring in and play "their national instruments". Parents were often working class – "some are unemployed or on compensation" and because of this the school received special funding.

School's interest in music was "medium to strong". Students' had initially had a "negative attitude to music" however she had worked to build up the status of music through elective music classes, plus four rock bands, a concert band, Turkish rock group, "from time to time" keyboard ensembles, and tutoring was provided on woodwind, brass and percussion. The venue, space and resources were good. Music teaching took place in a music room and the "excellent gear" included a large number of guitars, keyboards plus tuned and untuned percussion and two PA systems.

Teaching perspective: music programme was of her own design which interpreted the NSW Board of Education's syllabus, a syllabus which she noted gave "equal importance to playing, composing and listening". The class of students in the 15 year age group was one of two elective music classes at that level in the school taught by two teachers, both following the same programme. Each class had four 40 minute lessons per week and was of mixed ability, allowing "good students [to] help slow students. We like a 'helpful' environment – not a competitive one". Teacher No. 76 had taught the class in the previous year, with some new students arriving, and both teachers were "pleased with the interest and attitude of both classes".

The teacher worked to interest the students in music in a number of ways, encouraging use of instruments from their different cultures and building up the school's instrument resources to a strong level focused around the musical interests of the age group. She tried "to give pupils a bit of everything in most lessons" rather than rank or favour music activities. Because of the boys' dislike of solfa, other approaches to pitch learning were used – "lots of rote on keyboard over and over, and sing[ing] with pitches". Her approach was eclectic, "a fair mixture of lots of other peoples' ideas, adapted for the boys we teach", and special mention was made of "encourag[ing] boys to always use a sound source to compose (especially at [an] early age) as I really feel they find it difficult to 'hear in their heads'". "Usually we listen or perform, observe, analyse and then try to write the music and then perform our compositions", an approach in which a number of music activities are focused around one topic. Assessment undertaken through "questioning techniques in the classroom" plus questionnaires and tests.

### 8.5.1 Analysis of one student composition associated with teacher No. 76 written in response to the African project (see Appendix 8 and CD for Appendix 8 Track 18)

Time: *Marriage,* composition 76.1, utilised semiquavers, a rhythm value not used in the model, and these became an integral part of the class composition. This was a development of the composition model in the project.

Cultural context: While *Fishing* described the African instruments which would have been used by the Ewe people of Ghana, and Reich's relationship with this music was mentioned in the album's introduction, no further attempt was made to place the work in a cultural context. Teacher 76, however, designed worksheets for the students which described the role of music in African life and set listening tasks based around three excerpts of African music. In doing so she greatly expanded the cultural context within which the African Rhythms project material was introduced to the students and within which the students composed *Marriage* using a text written by the teacher.

### 8.5.2 The approach and strategies of Teacher No. 76 in facilitating student composing activities with the African Rhythms project

Teacher No. 76 wrote that she would not create a special place for the projects, but that the African and Gamelan projects would be substituted in place of another unit of material. Over 6 to 8 weeks, "about 18 periods, with interruptions" from assemblies or teacher in-service courses, she set out "to explore music and culture of Africa and Malaysia; to observe the music and then perform it; to use sound sources in the classroom to compose in African and Malaysian styles". The objectives were met for African Rhythms but "time ran out" and, despite prepared worksheets, The Gamelan project was not attempted.

Drawing on the common ground of similarities with jazz, "call and response, vocal tone colours, improvisation, blue notes, rhythmic drive", she led students through a

contextualisation of the role of music to people of Sub-Sahara Africa, listening and performing activities to class composition and performance of the class composition, with aspects of cultural context clearly established. While this was an integration of music activities around one topic, it took place through a carefully planned sequence not dissimilar in outcome to those listed in Holdaway's natural learning model through a series of steps.

Six pages of worksheets (see Appendix 8) led students through different activities all focused on music of Sub-Sahara Africa and established a learning process for the students whereby each new activity carefully built on the activity established before it. Other listening exercises and improvising tasks took place during performing and composing stages. Her teaching approach combined learning tasks selected according to the students' developmental level, illustrated by the carefully designed worksheets. The students' reasoning was sought for these tasks and she adopted a predominantly group process model engaging students and herself in class 'composition by committee'. The sheets provided an ethnographic context for musical exploration, gave a series of listening questions focused on three recordings of music from Sub-Sahara Africa, required transcription of rhythms and observation of beat, density of texture and use of repetition.

Performing activities focused around improvisation, recorded performances of *Fishing* from the album and recorded performances of the class composition *Marriage*, 76.1. Improvisation included "lots of call and response in clapping and speech" and exploration of rhythms in 12/8. Through three recorded excerpts of African music, students "observed these in African music then tried to apply these in our performance e.g. 1. Four note groupings versus 3 + 2; 2. Vibrato, shouting, call and response, observed 'blue' type notes, slurring, falsetto". Students caught the spirit of the cultural context and at one stage "broke out in native chants – and pretended to be African!"

*Fishing* from the project was printed on the third and fourth worksheets and questions focused students on listening as they played. The piece was performed and recorded on cassette nine times. It was treated as a flexible composition, deconstructed, then assembled layer by layer to ensure that the students' understanding and playing capabilities were maximised. Students played in groups, listening while another group performed. The first few takes were 'vocals only' versions "attempted AFTER we observed vocal tone colours in *Song from Angola*". In one take the chorus was treated "as an ostinato response". In take four, the class's first attempt at *Fishing* combining voices and instruments with a cowbell as the pulse, students found coordination between the vocal and instrumental rhythms difficult. Use of "the bell of a suspended cymbal for the 'iron bell'" provided a solution. Over three more takes the teacher recorded the increasingly positive responses of the students as the piece was performed faster and more accurately.

Working from sound to symbol, composing activities were based around a text on marriage written by the teacher, printed on the fifth worksheet, and on page six, a template of rhythm patterns and an instrumental 'frame' were given as parts of a prescriptive task design to instigate class composition. Structural issues of "phrases of 'question and answer', call and response, [and] number of bars in the composition" were discussed. Over "roughly 3 periods", the students wrote "all percussion and rhythm parts" working through class 'composition by committee'. The teacher wrote of discussion by students and herself on instrumentation and the suitability of each instrument to the rhythmic layer. The dobruka, for example, was felt to have a "much larger variety of tone colours and was quite resonant" in relation to bongos in the same rhythmic role. She noted that while "they weren't absolutely thrilled [with the composition process] their discussion was on a mature level and discussion of hard concepts e.g. cross rhythm, was fully understood".

Playing by ear, memory and "notation the most", the students recorded two takes of *Marriage*, 76.1, for the study with vocal and solo drum improvisations. The piece was conducted "otherwise it became very difficult, especially when [the] xylophone came in". Teacher No. 76 was especially positive about the role of the cassette recorder in the classroom and stated that they "used it EVERY SINGLE lesson for the project – either recording or listening". She employed the cassette player in a number of ways: for student evaluation of their playing as they "were interested in hearing their recorded performance; for student evaluation of their composition; to listen to recorded works of other artists for student aural observation; to construct *Fishing* layer by layer and listen back, an experience with aural, compositional and performative outcomes; for observation of style; for rhythmic dictation; and for her own use.

The teacher was positive about her work with the project, noting that she did have to "make room" for the material as it did not "slip" into the unit of work on performing media previously programmed. She "would have like to have done Malaysia, but ran out of time" and looked forward to "using the projects again". She noted that some of the students were positive about their work with the project material, others were negative.

Teacher No. 76 adopted an approach to the project material which moved sequentially through cultural discussion, listening activities, recorded performances of the project piece, class composition with recorded performances. A set of worksheets designed for the Gamelan project used the same progression. Despite planning these worksheets "prior to beginning the project" the teacher had not realized "the African music would take so long e.g. perfecting the performance… so I had to be flexible for time". She was willing to change the music programme to fit the material and expand the time frame as challenges were met and overcome. This was the result of an interest in building the students' performances to a level satisfying to all, and secondly, a wish to finish exploring the project material as thoroughly as possible through different music activities. She explored the topic thoroughly, reconstructing the performance of *Fishing* layer by

layer until all strata were present and playing it several times to achieve as accurate and effective a performance as possible. The performance difficulties led her to suggest that African Music was especially suited to students in the 15 year age group upwards indicating an awareness of these difficulties. Phase Shifting and Add and Subtract were considered more suitable for younger secondary school students.

Working often as instructor rather than enabler, the teacher adopted a strategy for introducing the students to composing activities which ensured a pastiche outcome. The tightly constructed prescriptive task design combined a template and frame plus a text written by herself. No attempt was made to encourage students to move beyond pastiche writing and utilise African compositional techniques in their own compositions through a more open task design in relation to this study. However, the students explored the topic thoroughly through a number of different music activities.

Her ability to plan learning stages was reflected in ideas for using the projects as a sequential programme, it being " up to the teacher which order to put them in". She gave examples whereby the projects could be used comparatively, in relation to use of compositional techniques by African and modern Western composers; study of contemporary composition and performance; and focusing on one element e.g. rhythm, and comparing "African, Malaysian, minimalist etc.".

She criticized *The Pulse Music Album* for not including "rock influenced work" e.g. Jarre, Bowie, and noted that some of the directions could be made clearer. She felt that the African project "consolidated" work previously done with compound groupings and with the 'blues' topic. Overall, the teacher felt that the students enjoyed working with the material, but noted that "these kids have a 'that'll do' attitude and didn't like me insisting on getting it right with regard to performance". My brief visit to the class early in the project confirmed this impression and noted her ability to comment on, and correct, this behaviour both personally and musically.

## 8.6 Teacher No. 89 – a female music teacher in a private secondary girls' school in Sydney, Australia (Appendix 8)

**Education, experience, preference; teaching environment; teaching perspective**

Education: music education diploma and a Dalcroze qualification;

Experience: nine years of teaching experience all within the same school and half of this time was with the age group to whom she introduced the minimalist projects. Previous experience with twentieth century art music styles was through the NSW HSC Year 12 syllabus, specifically a compulsory topic on music of this century, introducing students to a large number of musical influences from last century including impressionism, aleatoric music, electronic and mixed media works, serialism, neo-romanticism, minimalism/pointillism. Through score reading, listening and analysis students explored the music of a number of European and American composers, e.g. Schoenberg, Stravinsky, Bartok, Cage, Penderecki, Berio, Reich, Britten and Australian composers, Boyd, Hyde, Henderson and Sculthorpe. Experience teaching music of other cultures to Years 7 and 8 included Indonesian music through "musical appreciation" and Philippine music through "bamboo stick 'tinikling' dances".

Preference: wide ranging musical preferences - art and popular musics, plus musics from specific cultural contexts including the new age music of Andreas Vollenweider, church choral music and some music of other cultures. She took part in a number of music activities including writing and arranging music and also produced plays and musicals.

Teaching environment: private secondary girls' school in Sydney with students drawn from middle/upper middle class socio-economic backgrounds. School had a strong interest in music and offered many extra-curricular music groups to students ranging from small and large choirs, orchestra and wind groups through to folk and community groups. Many of the students learnt instruments privately and students in elective music

classes had five forty minute school lessons every week. The venue and resources for music were “adequate” with more space needed. The school music curriculum combined elements of the state, national and school documents and instrument playing, singing, notation skills, aural training, improvisation, composition and arranging were engaged with in “approximately equal amounts”, with “a variety of each” of listening, music history, music in society were included every week. There was insufficient room in the school for movement.

Her personal ranking of music activities was the same as that of the curriculum. Employing listening and performing activities to introduce students to aspects of pitch and rhythm, she chose to evaluate the students largely through summative tasks which included tests and quizzes, performance in class, compositions performed and marked, essays written, aural tests and sight-singing.

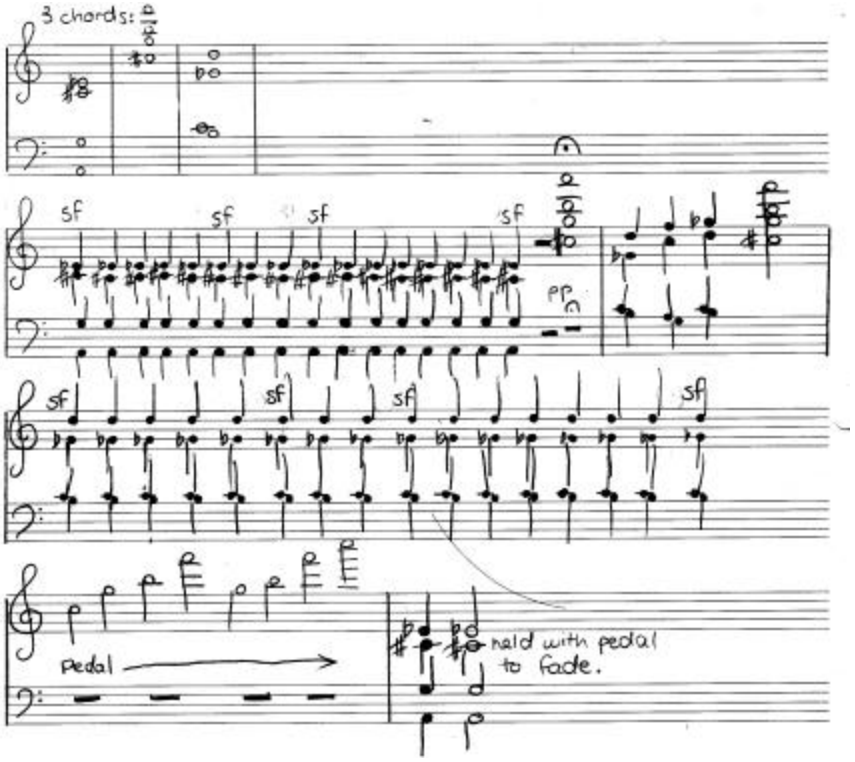
The five female students in the Year 9 elective music class were of mixed ability with an average age of 14 years and had moved from general music in years 7 and 8. They all learnt an instrument, had studied musicianship and each student took part in at least one extra-curricular activity.

Teaching perspective: presented a balance of musical, cultural and psychological values which together formed a holistic approach to music teaching. She believed “that all children should have the opportunity to be able to learn to read and write music just as they learn to speak English”. She saw music as “present in many aspects of life as well as being an important aspect of being creative and bringing out emotions and a person’s inner self”. Music was “a form of self-expression, a way of showing and using talent”, it could be “healing”, could “reflect society” and be a form of communication.

### 8.6.1 Analysis of 17 compositions students associated with teacher No. 89 written in response to the Phase Shifting and Add and Subtract project material (see Appendix 8 and CD for Appendix 8 Tracks 19-21)

Structure: Composition 89.16 employed phrases of multi-repetition separated by long held chords and ending with a sustained arpeggio figure. This represented an expansion beyond the tightly constructed processes of the project models.

**Figure 8.1 Composition 89.16**




Structure and harmony: Composition 89.17, a short piece played on marimba, used repetition of cadential figures in a through-composed structure, an expansion of ideas introduced in the project models.

Construction: Six of the ten phase shifting compositions, 89.1, 89.4, 89.5, 89.10, 89.11, 89.13 and 89.14 employed an irregular number of repetitions for each cell, with some as frequent as twenty and others as few as two. As the line which was not phase shifted could be repeated to accommodate these variations, this represented a development of the even number of repetitions of the models.

Time: Compositions 89.13 and 89.14, which shared the same rhythmic cell, employed a semiquaver rhythmic pattern and syncopation, a development beyond the crotchet and quaver subdivision of the models.

Pitch and dynamic markings: The dissonant nine note pitch set of composition 89.16, and the carefully positioned sforzando markings expanded the small consonant pitch sets and dynamic and articulation palette presented in the project models.

### 8.6.2 The approach and strategies of Teacher No. 89 in facilitating student composing activities in response to the Phase Shifting and Add and Subtract projects.

The teacher's preliminary opinion of the projects was that they would "fit into the composition area" of the curriculum. Over five months, she spent eight lessons introducing students to four of the projects, Phase Shifting, Phase Shifting Melodies, Add and Subtract and Harmonic Prisms. She submitted a cassette of performances of pieces from the Phase Shifting and Add and Subtract projects, played in the order in which they appear in the album, plus two shortened versions of Riley's *In C* and three short student compositions. The first two recorded takes were of student composition 98.13 performed with different instrumentation.

While Teacher No. 89 outlined largely skill-based objectives for three projects, Phase Shifting, Phase Shifting Melodies and Add and Subtract, the student compositions written during engagement with Phase Shifting Melodies revealed only a phase shifting process with tuned percussion. Objectives for Add and Subtract were focused on changing time

signatures. Those for Phase Shifting were concerned with introducing students to new twentieth century styles of music and compositional techniques and to the sounds of the Indonesian gamelan plus skill-based work with rhythms, melodic motives, rhythmic processes and composing original melodic motives. Apart from previous work with motives, the teacher noted that the project material was unfamiliar.

The teacher listed music activities and skills with which the students worked while exploring the projects, some focused on performance – e.g. "learning new notes on recorders", "singing one part alone", "crossing two xylophone sticks" – and others on listening - score reading, metre changes, with no reference to composition.

Adopting an instructor role, the teacher engaged students with listening to Reich's *Clapping Music*, Riley's *Rainbow in Curved Air* and music of Stravinsky (e.g. *Petrushka*) with metre changes. Pieces from the Phase Shifting project (*In Step – Out of Step, Wind Chimes, Chitter Chat,I think it's going to rain*) were first played from notation then memorized. A number of cells from Riley's *In* C were played and recorded. At times a student conducted and the teacher noted that the pulse tended to accelerate without counting or conducting and they found a "slower pulse easier to follow and hear". Recording the performances allowed students to "be critical of the sound of various combinations of instruments, dynamics, keeping in time etc. [and they] felt it needed much more rehearsal time which I feel, we did not have time to spend on".

Instrumentation chosen was largely tuned and untuned percussion. The exception was *Picket Fences* which was performed slowly, each cell played only once, but the whole structure repeated five times with instrumental variations – bowed strings and clarinet, pizzicato strings, tremolo strings and finally clarinet and cello with the other strings playing 'bird-like' harmonic sounds in the background. Students designed these "variations…instead of repeating the bars 6 times". This resulted in a piece very different from the score instructions of fast tempo and cell repetition six times and it negated the minimalist aesthetic. Improvisation involved clapping rhythms, "accenting

the first beat of the bars [making] time signature changes occur ". The teacher used Option A *Chitter Chat* and Option B *I think it's going to rain* on recorders and other instruments "for fun to open a lesson".

Each student composed three pieces, largely pastiches, all submitted to the study written on one page with the cell from *In Step Out of Step* from the album copied out at the top. The first two employed phase shifting, firstly for untuned percussion and secondly for tuned percussion. The third piece adopted the additive construction process of the Add and Subtract project. All pieces, 89.1- 89.15, were notated and "played from notation but usually memorized … very quickly". Students wrote their compositions within one lesson, taking "30 minutes out of a 40 minute period". Within these short exercises, students developed the project models by repeating phase shifting cells irregular numbers of times up to 20, but often with inaccurate phase shifting; compound duple metre phase shifting rotated at the quaver value; rhythmic values; and recyling material from one piece to another. Two students each submitted a fourth composition for the study which expanded several parameters beyond those presented in the models, one composer stating that "she'd never written stuff like that before – it loosened up the composition in her class", an empowering experience.

Teacher No. 89 noted that the students enjoyed "the rhythmic outcome [of additive construction] …by performing it on percussion instruments", and the melodic aspect of phase shifting with pitch and add and subtract because the concepts "gave them more variety in pitch and rhythm to be creative". However, they did not like too much repetition and "suggested to not repeat bars too often". The minimalist concepts were "so different to what they had previously done that they actually preferred to compose in the way they knew best how ". They enjoyed playing instruments, but not composing with repetition and wanted "to write melodic phrases of longer length" indicating a desire to move beyond pastiche composition.

The teacher enjoyed working with some of the projects but expressed reservations about multi-repetition, feeling that "much time…was wasted". The students found the concepts easy to write but difficult to play and "repeating the bar too many times got boring". They found the projects very similar and enjoyed material far more when time was left between lessons. Phase shifting "sounded good [but it] was quite hard to keep the rhythm of the phase shifting parts when other people around you were doing different parts". Add and Subtract, however, "sounded good, but was quite hard to write". The teacher did not think the projects would work sequentially as she found that "interest waned after a few sequential lessons". Composing activities "seemed to take a long time to write and perform pieces – longer than I give a conventional harmony or melody writing exercise, mainly I suppose because it was something different".

She found that she did have to "make room" for the project material. "It was a good opportunity for something new and different and also it forced us to perform more than we usually do". Working from one week to the next the teacher noted that she was able to achieve a balance between various music activities with the project material except for harmony. She was positive about recording performances but noted that theirs were "all very rushed".

Teacher No. 89 wrote that Phase Shifting suited younger students, Harmonic Prisms older students and thought the projects "would be better used on occasion to tie in with some topic being studied". She had planned working with the gamelan project "but on listening to the cassette…the majority of students really didn't enjoy that style, so I decided against it". The students' responses to Harmonic Prisms was also negative and the teacher did not persevere although she noted that one student had written a short composition after this brief encounter with Harmonic Prisms, similar in sound to 'Dance of the Adolescents' from Stravinsky's *The Rite of Spring.* Although "the class and I found this sort of music a little too monotonous and not as lyrical as we are used to" in composing, performing and listening, the teacher wrote she would use some ideas from

the projects again, especially add and subtract, “if they fitted exactly into what I was already doing”.

Teacher No. 89 worked as an instructor, introducing her students to minimalist compositional techniques through a prescriptive task design that used pieces from the projects as models. The resulting compositions were, on the whole, short, theoretical, pastiche exercises yet the student composers were experienced performers with a strong music knowledge drawn from school and private tuition. Despite the interests of the students in long melodic phrases and the teacher’s interest in other projects she was unable to lead all of the students to composing activities which developed and expanded the project ideas. She did, however, employ instrumentation with which the students were most familiar, instruments they were learning formally, in the performance of *Picket Fences*.

There were strong indications within the teacher’s student-centred approach that the students led the pace and direction of classroom composing activities through their negative remarks about the recorded examples, the Harmonic Prisms project, the sound of the gamelan and too much repetition. However, they enjoyed performing and liked aspects of composition. To accommodate these negative responses the teacher distorted the minimalist aesthetic by adopting slow tempi and often no repetition, changes to accommodate the students’ dislikes which destroyed the ‘trance’ aspect of minimalism’s aesthetic, resulting in performances which were easier to play but lacked vigour and interest. The students’ hand-written comments, however, noted their dislike of repetition yet remarked positively about other aspects of their work with the material. Compositions by two students, submitted for the study, expanded several concepts beyond the project models indicating the teacher in an enabling role. One student had discovered techniques by accident during sound exploration with concepts from the projects, had accepted and adopted them in her writing, working as a creative participant and decision-maker. The teacher listened to the negative remarks made by the students

about the project material and followed these rather than following and building on the pace and direction of compositional expansion of ideas in further classroom composing activities.

## 8.7 Teacher No. 98 – a male music teacher in a selective public secondary boys' school in Sydney, Australia (Appendices 7 and 8)

Education; experience; preference; teaching perspective:
See Chapter Seven.

Teaching environment: 14 male students of "mixed ability, some extremely gifted in all aspects of music ability [with] one or two gifted academically, [but] poor practically" who had elected to take music at school. All of the students "play instruments ranging in ability from 8th grade to A.Mus. violin to elementary piano, 4-part vocal harmony, [some with] aural skills above the average [and] four class members [are] very highly skilled".

### 8.7.1 Analyses of two student compositions associated with teacher No. 98 written in response to the Phase Shifting/ Phase Shifting Melodies projects (see Appendix 7.3.iii)

Structure: While compositions 98.6, *Joy on a Rainy Day*, and 98.7 were pastiches of *Lazy, Lazy Boat* from the Phase Shifting melodies project, both employed a four bar phase with a three bar phrase, a development from the five and four bar phrases of the model.

Pitch: Both compositions used a pitch set extending over the interval of a 9th, a considerably wider range than, and therefore development of, the five-finger span pitch set of the model.

### 8.7.2 The approach and strategies of composer-in-schools teacher No. 98 in facilitating student composing activities with the Phase Shifting/Phase Shifting Melodies projects

Over a semester, Teacher No. 98 engaged students with four projects from *The Pulse Music Album*, starting with Phase Shifting/Phase Shifting Melodies, moving to Harmonic Prisms and then to Canon. These projects were chosen because the teacher felt "they would work sequentially [and] because of the step by step process more or less presented".

He made no differentiation between the Phase Shifting and Phase Shifting Melodies projects, moving the students on from one concept to the next through the common ground of minimalist repetition with change. Over a time period which he found "difficult to gauge because of interruptions – possibly two a cycle", students were introduced to minimalism for its own sake through the empowering objectives of "exposure, enjoyment and fun, [and] use [of minimalism] as a compositional device".

Three compositions from the album were played and recorded for the study, *In Step*, *Wind Chimes*, *Lazy Lazy Boat*, the students "playing initially from notation, then memory". None of the recordings on the tape had been rehearsed and most were "the first or second playing" by the students. The teacher "used some of the motives as melodic dictations", thereby introducing minimalist fragments through a formal aural component.

Working "always" from written notes to playing, the students engaged in instant composition over one class lesson period, writing for instruments chosen "on whim or suggested by the class e.g. cello, bassoon etc". The teacher considered the activity of composing "not really an incentive [to the students' music learning, but] a stimulus perhaps".

Some students added titles to their pieces. The recording contains *Joy on a Rainy Day* (98.6) and composition 98.7, both pastiche student compositions modeled closely on *Lazy Lazy Boat* in the Phase Shifting Melodies project but with some structural and pitch developments. Performances were fairly accurate but insufficient repetitions of 98.7 were played to complete the phasing cycle.

Teacher No. 98 commented that "this class enjoys the frolic of playing anybody's composition, and then usually gives it a mark voluntarily and discuss quite ad hoc". While the students worked quickly with humour and as a class were willing to peer evaluate everyone's work, they also moved from an initial reaction to the material as "trite" to a realisation and understanding of "the control required". Student comments were negative - "we're not doing this again", "This is tedious!", "Boring!", "Can we do some real music?" – while the teacher "enjoyed the material".

Working as an instructor, the teacher showed a keen understanding of the ability and attitude of his students by first engaging them with phase shifting and phase shifting melodies as an introduction before moving to material from two more projects to which a more positive response was given.

### 8.7.3 Analysis of 17 student compositions associated with teacher No. 98 written in response to the Harmonic Prisms project (see Appendix 8 and CD for Appendix 8 Tracks 24-28)

Structure: *Rebirth,* 98.14 was a pastiche of *The Wind* echoing its four layers and instrumentation of metallophone, piano and cymbal. Harmonically, the adoption of a repeated five chord harmonic pattern developed the project model's three-chord pattern. Structurally, however, *Rebirth* incorporated a cadential effect at the end of each repetition of the five chord harmonic pattern, dividing the 'flow' of the piece in half and reflecting a climax in the text. This combining of minimalist layers and cadences of functional harmony was an expansion of the structure introduced in the project. An accurate performance was recorded.

*The Fight*, 98.21, a pastiche of *The Prism*, and *The Tree turned Knob*, 98.22, both introduced a textural change in the second to last cell which acted as a cadence to both compositions. This cadential ending was a development of the continuous repetitive texture of the model.

Construction: *Sentinels*, 98.19, combined the repeated chord pattern of *The Wind* with an ostinato pattern in the lower part, an expansion of the shifting lower line of the model.

Pitch: The dissonant harmonies resulting from clashes between ostinati and repeated the chord pattern in *Sentinels*, 98.19, developed the tonal harmonies of the model and a 'tierce de Picardie' at the end reflected the optimism of the text.

*Narration*, 98.18, was a pastiche of *The Prism*. However, the through-composed cyclic harmonic pattern consisted of hauntingly dissonant chords built largely on fourths, an expansion of the consonant triadic harmonies of the model.

Time: *Insanity for the Insane*, 98.15, was a pastiche of *The Prism* echoing its number of rhythmic layers, through-composed chord pattern and tonal chords with strong voice leading or note-in-common relationships. However, three aspects of the model were developed in the composition. A 'hemiola' rhythmic relationship between the second and lowest layer changed the compound rhythms of the model. An augmented chord in the second cell played in the recording but not present in the score suited the text topic and the single soft dynamic level provided a restrained background to an 'insane' first-person text. *Monkey*, 98.20, modeled closely on *The Wind*, but with a text, employed a 'two against three' rhythmic hemiola relationship between the percussion part and the melodic instruments.

Composition 98.12 and *Shepherds* (sic) *Prism*, 98.16 were both modeled on *The Wind* and *The Prism* from the project, respectively. 98.12 reflected the three chord harmonic pattern and cymbal use of the first project piece, but the triple metre and driving 'quaver - two semiquavers' rhythm pattern developed the time elements of the model. Composition 98.16, with text, employed the four layered construction with inversion of the layers plus the through-composed harmonic pattern of the project's second model composition, however a driving repeated dotted rhythm was a development of the lyrical compound duple rhythms of *The Prism*.

Pulse: Composition 98.23, *Sifr*, expanded the ideas presented in *The Prism* in a number of ways. It employed a xylophone pulse which "plays the A" throughout the work, and the through-composed three part harmonies of the piece pivoted around this pitch. The composer required the xylophone A to be struck in a complicated rhythmic pattern of "a 1 beat, half beat-note, third beat-note, quarter beat-note, fifth beat-note, followed by a forty-third over sixty beat-rest (that is, one which means that a total of 2 beats have gone by) followed by a fifth beat-note, quarter beat-note, third beat-note, half beat-note, one beat note, forty-third over sixty beat-rest, each bar". While this could be difficult if not impossible to play, the concept of a repeated symmetrical, rhythmic, pulsed A around which the chords changed was new and very different in relation to the ideas presented in the Harmonic Prisms project. While the texts of most of the compositions submitted to the study by Teacher No. 98 were written by the students, *Sifr* employed a text, Lucky's speech, from *Waiting for Godot* by Samuel Beckett.

Texture: *The Clock*, 98.13, was submitted as two manuscripts, the second neater, more accurately written out and one measure longer than the first. The piece was recorded. The composition reflected the structure, rhythmic layers, number of instruments and dynamic variety of *The Wind* from the Harmonic Prisms project. However, the climax of the text was intensified by a unison locking together of the rhythm of the eighth cell with the words "Boom! Smash! Roar! Crash!". This 'Mickey Mouse' effect between text and

instrumental music expanded the textural treatment of the model by heightening the shape of the story and introducing into the composition two contrasting textures – unison rhythm and freely spoken text.

At first glance composition 98.24, *The sea rises and falls…*, appeared to be influenced by the music of Chopin rather than Reich. However, closer analysis revealed a piano piece modeled on *The Prism* with a through-composed tertian harmonic pattern, repeated two-bar cells and text. The 'tierce de Picardie' of the final cell reflected Chopin's writing, but when repeated was reminiscent of the structure of *Modern Love Waltz* (1977) by Philip Glass for solo piano, a work where arpeggiated one and two bar cells were each repeated twice. The piece expanded textural aspects beyond those of the project model.

Instrumentation: 98.8, *Reflections*, employed clarinet and violin, instruments learnt by the students, a development beyond the keyed percussion suggested in the project model.

Articulation: The staccato markings in composition 98.11 represented a development beyond the articulation of the project models.

### 8.7.4 The approach and strategies of Teacher No. 98 in facilitating student composing activities with the Harmonic Prisms project

Over six to eight lessons, Teacher No. 98 introduced the students to Harmonic Prisms "as an incentive to create their own compositions basically because I thought the project was interesting".

Discussion was informal, with students making "their own observations" as the process was understood through playing *The Wind* and *The Prism* from the project, from "notation, then memory". The recording of *The Prism* revealed three accurate performances by different student groups with, at times, colourfully timbred voices reciting the text. The teacher led the students into "improvisation with glock[enspiels].

However, it tended to fall apart because of the hilarity in the room. They enjoyed what they were doing however lacked discipline to follow it through – [an] ad hoc lesson".

Working from "symbol to sound, rarely the reverse" students composed pieces using both *The Wind* and *The Prism* as models. Five compositions modeled on *The Wind* (98.8 – 98.12) and twelve modeled on *The Prism* (98.13 – 98.24) were submitted for the study, five recorded, all in scores written by the students and most bearing descriptive titles. The teacher commented that the length of time taken for students to compose their pieces "varied according to [the] task. Some a period, some a little longer". Composing was acknowledged as being an incentive to the students' music learning "however as you will see by the examples they wandered from the guide-lines set". This "wandering" saw the inclusion of familiar functional harmonic devices such as cadences and tierce de Picardie to reflect the meaning of the text; use of 'Mickey Mouse' rhythmic unison between text and music to emphasise a phrase; the addition of an ostinato; addition of a pulse; use of rhythmic groupings of two against three; dissonant harmonies; and a 'borrowed' rather than originally written text. The choice of student texts, some humorous, brought elements of the students' interests and therefore their society into the classroom composing environment.

At times teacher or students conducted, however the teacher noted that the students had no trouble "following the pulse". Using movement, "one composition employed a walk around the room in [a] given pattern. The reader instigated body movements according to what was being read". Recording the student compositions was "very useful. They enjoyed hearing each other on tape. Quite hilarious at times as you will hear. No time given much to retaping, what you hear is what you get".

The recorded performances were generally accurate, played at a slow tempo with some vigorous text readings. The teacher was positive about the material of this project and

found it “great fun” to work with. The students “enjoyed working on the project, however no comments offered. They seemed to revel in it!”.

Teacher No. 98 displayed a balance between his own lack of composing experience, his interest in the material and the natural ability and musicality of his students. The humour of some of the texts and the joie de vivre and humour of the age group plus the camaraderie of this class was harnessed by the teacher to explore the project material firstly through improvisation, then within the prescriptive composition task design of a model. It also indicated empowerment for the students through enjoyment of creating music. The teacher’s approach kept pace with his growing knowledge of the project material and of composing activities, the teacher as student, but also provided a restraint to the lack of discipline he noted was present at times with the boys’ exuberant behaviour.

Despite these restraints the teacher commented on how some of the student compositions expanded the “guide-lines” of the project. While he was unable to expand the project ideas himself, his student-centred teaching approach enabled the students to explore and lead through their expansion of the perceived project “guide-lines” in their compositions. He thereby created a composing environment whereby while teacher and students learnt from each other, the teacher could be perceived as learning more from the students than they from him. After using the project material with the two age groups he reflected that he “made room for the projects because I have in fact never done anything like this before. It was a challenge” however, because of preparations for a musical he “seemed to lose track of it”. These statements made by Teacher No. 98 before and after using project material revealed several aspects of his teaching environment and his approach to engaging students with minimalist material, material which was new to him and to the students. First, they illustrated his keen awareness of the ability of his students to handle new musical ideas. Secondly, they reflected his own willingness to reshape the music programme in order to include new material which interested him, rather than allow the

music programme to be fixed and rigid. Thirdly they demonstrated his frustration, when introducing music new to both teacher and students, with interruptions by school musicals and showed a need, within school music curriculae, for longer periods of time to enable a deeper knowledge to take place.

### 8.7.5 Analyses of eleven student compositions associated with teacher No. 98 written in response to the Canon project (see Appendix 8)

Both pieces from the Canon project in *The Pulse Music Album* were canons with accompaniments which employed the 'music weaving' process (*Bees Bizz*) and the processes of phase shifting and phase shifting melodies (*Three O'Clock Canon*). Student compositions 98.25 to 98.35 were all canons. Of these, eight were in two parts, three in three parts and five of these had an additional accompaniment figure. Only one composition, however, attempted to employ minimalist compositional techniques. *The Canon for the New Day*, composition 98.30, was a pastiche of *Three O'Clock Canon* from the project but no minimalist process was adopted in the accompanying lines although visually, there was a similarity with the model.

### 8.7.6 The approach and strategies of Teacher No. 98 in facilitating student composing activities with the Canon project

The third project Teacher No. 98 introduced to the elective music class of students in the 15 year age group was Canon, a process with which they were familiar and therefore had common ground through study of the "Baroque period in particular Baroque compositional devices, how they are employed etc.". As stated for his work with the Phase Shifting project, the teacher had no objectives "really", but "thought it was a rather …novel way of introducing, exposing them to canons".

Over four to five lessons students "listened to Pachelelbel's *Canon* [and] after the unit of work the pupils brought in examples from their own collections". Because of the common ground of Baroque compositional devices, Teacher No. 98 was therefore able to engage students with musicological and analytical approaches to canon.

Two canons from the project were played and recorded – *Bees Bizz* and *Three O'Clock Canon*. Working from "symbol to sound" students wrote canons in two and more parts, some with text, "generally" over one period. The teacher did not think "that in this instance [composing] was [an incentive to the students' music learning] because we have done a similar venture before". However, because of this similar venture through Baroque music and familiarity with the process, the teacher worked as an instructor and seemed unable to move beyond the common ground of the material. He did not enable the students to weave their knowledge of canon into the minimalist aesthetic and only one student appeared to attempt this fusion.

Teacher No. 98 offered no response from the students about work with the Canon project, although he noted that he enjoyed working with the material, "however with the hectic pace in this school we seemed to lose impetus!". This lack of impetus meant that they "ran out of time … to record all compositions" and no student-composed canons were recorded.

Teacher No. 98 was very interested in the project material and "knew after receiving the 'pulse album' what [he] was going to do". Despite interruptions and lack of time, he "made room for the projects because I have in fact never done anything like this before". His comments indicated that he was learning and exploring the material with the students as much for his own sake as for their's, the teacher as student. Choosing what he viewed as a sequential project path from Phase Shifting/Phase Shifting Melodies, through Harmonic Prisms to Canon, the teacher noted that students' responses became increasingly more positive although at the end of the last questionnaire he wondered whether, "perhaps the Year 9 elective class found it tedious". Responses in his questionnaires continually referred to interruptions (a musical) and lack of time.

He found the project material "invaluable" and wrote that he "would certainly use them

in the future". On reflection he thought "perhaps *The Prism* unit was the most rewarding because of the relationship the students could see between the music and composition". This was reflected in the way the students expanded a number of compositional parameters in their compositions based on the Harmonic Prisms project, an expansion which took place because of their natural ability and musical curiosity rather than through a deliberate strategy on the part of the teacher. In his work with both age groups Teacher No. 98 moved from the role of instructor when engaged with Phase Shifting and Phase Shifting Melodies projects to enabler with the Harmonic Prisms material, and back to instructor with Canon due to his previous knowledge of, and emphasis on, Baroque models. He was always learning about minimalism and composition from his students – the teacher as student – and despite his lack of composition experience, and therefore his strategy of offering students a 'model' as a task design, the students expanded and developed the task design without the teacher's direct suggestions, but not discouraged by the teacher.

## 8.8 Teacher No. 100 – female music teacher in a country NSW public secondary school (see Profile in Appendices 7 and 8)

Two different groups of students in the 15 year age group were introduced to minimalism – one a compulsory music class, the other an elective music class who undertook workshops with students in Years 9, 10 and 12. As Teacher No. 100 focused her responses with the workshops on the 18 year age group these are discussed in Chapter Nine. Her responses to work with the compulsory music class in the 15 year age group are discussed in this chapter.

Education; experience; preference;

See Chapter Seven.

Teaching environment: students took music as a compulsory subject for six months of the year.

Teaching perspective: “We do workshops – listening to lots of kinds of music – improvising on pitch – composing on chords and just on the pentatonic scale”, with singing with accompaniment in more ‘traditional notation”. The students invented their own rhythmic terminology – e.g. “crotchet = stroke, two quavers = staple, four semiquavers = caterpillar”.

### 8.8.1 Analyses of three student compositions associated with teacher No. 100 written in response to the Phase Shifting project (see Appendix 8 and CD for Appendix 8 Tracks 29 and 30)

Structure: Composition 100.6 recycled the melodic cell of 100.5 and added four new repeated melodic cells one at a time, ending with all five cells playing together. This was a structural expansion of the pieces presented in the Phase Shifting project and was similar in concept to that employed by Teacher No. 12 with students in the 9 year old age group (see Chapter Six).

Pitch: While composition 100.4 was a pastiche of the first phase shifting exercise in the project, composition 100.5 developed the concept of a one bar cell in quadruple metre through the addition of pitch. The recording was a brisk performance (crotchet = c.136), each rotated cell repeated twice.

Dynamics: By incorporating a crescendo under the added melodic cells, composition 100.6 expanded the single dynamic level presented in the project pieces.

### 8.8.2 The approach and strategies of teacher No. 100 in facilitating student composing activities with the Phase Shifting project

For Teacher No. 100 the Phase Shifting project was “similar to pentatonic melody work using ostinatos and improvised melodies” which students had undertaken the previous year. The project material offered “a chance to do practical work and give them an idea of how something can be ‘organised’”.

Teacher and students explored the concept of phase shifting over four lessons starting with improvisation "exercises on instruments before beginning [composition and performance] e.g. class echoes rhythms then echoes melodies on instruments. Then 'question' by teacher and improvised 'answer' by students or individuals". There was discussion about "the way [phase shifting] was organised". Composing from sound to symbol over a short period of time, "the students played as individuals then the class chose the ones [i.e. the rhythmic cells] they wanted – then they notated it", thereby working through composition by committee. The symmetry, sameness and resulting effect of the class rhythmic cell  when phase shifted was discovered, discussed and rearranged as  . This pastiche composition 100.4 based on a prescriptive compositional task design modeled on the short exercise at the beginning of the Phase Shifting project was for untuned instruments. It was practised, students playing "by ear first then by notation as well, working out the rhythm and notation", performed but not recorded. While the teacher conducted "the whole time", she felt the students "could play without a conductor if necessary" and noted that "a slow and steady pulse [was] very hard to achieve in Year 8". Composition 100.5 developed this concept through the addition of pitch played on tuned percussion.

Teacher No. 100's systematic and sequential exploration of the first exercise in the Phase Shifting project from improvisation, aural through improvisation, pastiche writing, opening the task design to a pitch set, through structural expansion gave both the students and her the opportunity to experiment with possibilities of the phase shifting material. By discussing how music can be organized this resulted in structural expansion in one composition. By recycling material from one composition to another, at the same time building a new structure, she facilitated the learning and reinforcement of basic concepts and theoretical skills, at the same time showing students how to think about music in the composing environment through repetition and transformation of material from one musical context to another.

Despite this rapid progress over four lessons from pastiche to an expanded composition, the teacher noted that while the students "like to write and then play what they have written" and "enjoyed hearing back what they have done", they "enjoyed the project for a while…[but] were well and truly ready for new work when it was offered". She placed blame for this loss of interest on the students and herself. She enjoyed some of the material but felt that the interruptions of the school environment "made me rush through a bit". She found parts of the project album "a little difficult to understand…and found [herself] rereading parts to get it clear", for example using the term 'measure' instead of 'bar'.

Teacher No. 100's student-centred teaching approach discussed in Chapter Six, was clearly evident in her work with the 15 year age group compulsory music class. She adopted a strategy sequence again and constantly reworked material through different activities and strategies to ensure student understanding, with an emphasis on discussion and class composition by committee.

Despite misgivings about the students' interest in the material, the teacher enabled the students to achieve an innovative expansion of the phase shifting concept through the composition techniques of adapting, recycling and transforming material. The students achieved fast accurate performances of their pieces because of the teacher's awareness of the inherent difficulties of performing minimal music.

## 8.9 Teacher No. 116 – female composer-in-schools at two New Zealand schools (see Profile in Appendices 7 and 8)

**Education, experience, preferences, teaching environment, teaching perspective**

Education; experience; preferences;

See Chapter Seven

Teaching environment: two small mixed classes of students in a New Zealand public secondary school. All learnt instruments and had elected to take music in Form 5. Ability of the class described as “medium” with parents generally drawn from a “high socio-economic group”. The school’s interest in music was high, evidenced by the four to five music lessons this class undertook per week, the number of ensembles and the instrumental tuition classes offered, and the fact that the school had applied for and embraced Teacher No. 116 as a composer-in-school one day a week. A music classroom was well-equipped with instruments but no recording facilities yet recordings of compositions were submitted to the study. The school curriculum had been designed by the composer-in-schools which gave her “freedom to work over and above the syllabus” and to rank composing activities, performance and aural training highest “although these three are altogether really”. Introducing material from *The Pulse Music Album* posed no problem in relation to her music syllabus.

Teaching perspective: with students at secondary level, her approach was through composing activities, often “individual work…within [a] specific ‘brief’, i.e. fanfare, piano piece, violin duet, or continuation of given openings, jazz improvisation etc.”. Students composed pieces which were presented to the school and families through “two performance evenings a year of original compositions". This empowering approach encouraged students to be creative participants and decision-makers within a style or instrument based prescriptive task design and to engage members of the school and wider society with their ‘contemporary’ art works through concerts. Harmonically, she introduced students at this level to playing “triads up a scale, then settle[d] on a pattern i.e. I IV V vi/ ii V I/”.

Teacher 116 assessed composition at this level because it was “required by [the] curriculum, otherwise I don’t evaluate and assess formally”. Her approach to assessment varied “according to the school. A mark is given from assessment of a folio of compositions, including effort, originality, presentation, successful performance (most

important)". This evaluation of the complete process and product viewed performance of a composition as an integral part of the composer's process. An empowering perspective for the student composer within the smaller class community, it also reinforced the notion of a composition being incomplete until it can be heard by the wider society within which it was conceived. And this (often) confronting experience offered students both musical and personal empowerment through understanding of their ability to create a dialogue with this society through their own creative musicality, the true role of the contemporary composer in a society.

### 8.9.1 Analysis of one composition, *In Welcome*, of students associated with teacher No. 116 written in response to the African Rhythms project (see Appendix 8 and CD for Appendix 8 Track 32)

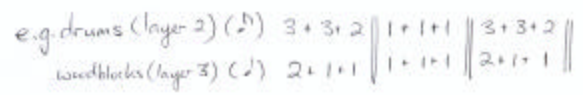
Construction: The students' composition, *In Welcome*, 116.2, has a ternary structure similar to that of the project model, *Fishing*, but in the return of the A section, the different rhythmic strata of the opening section enter one by one over the middle section's unison rhythmic texture creating a gradual change of texture from B back to A material. This overlapping of material was a vertical constructional expansion of the simpler ternary structure outlined in the project model.

Structure: The move from four different ostinati layers in section A to unison rhythmic texture in section B was a horizontal textural and structural expansion of the unchanging repeated horizontal construction process of ostinati layers presented in the project model.

The piece was composed for five layers of two hand beaten drums (each at a different pitch), higher and lower sets of claves and a gong. The drums and claves reflected the instrumentation of *Fishing*, but the gong's role of aurally marking sections and the end of the piece represented a structural expansion of the role of this instrument, a role borrowed from the gamelan. Unlike the project model *Fishing*, *In Welcome* does not employ voices.

Time: The recording sent in for the study was made at a concert and the playing is at a fast tempo (quaver = c.310) resulting in a short (c. 1 minute) evocative piece. The 8/8 (or 4/4) metre of *In Welcome* was a metric development into simple time from the compound quadruple metre of the project piece, *Fishing.*

Horizontally, the four drum and claves layers each play a different subdivision of the quadruple metre's eight quavers in the A section:




Vertically, the piece employed different groupings of the metre's eight quavers as it moves through an ABA structure:


This grouping of the quaver unit into five different rhythmic patterns within a stratified ternary structure with textural changes from polyphony (A section) to unison rhythms (B section) represented an expansion of the simpler entirely polyphonic ternary structure of the project model where a layer of improvisation signaled the middle section.

Dynamics: The move from mezzo forte in the A section suddenly down to piano in the unison B section followed by a crescendo as A returns represented an effective expansion of the single dynamic marking of *Fishing*.

Context: By adopting the title *In Welcome*, the students and teacher changed the subject of the project model, *Fishing*, and brought it into the context of the school as the opening piece for their composition concert. The title gave the piece a social context and purpose, thus engaging students with the school society through their creative composing.

### 8.9.2 The approach and strategies of composer-in-schools teacher No. 116 in facilitating student composing activities with the African Rhythms project

In her previous teaching, Teacher No. 116 had introduced students to a range of musics from outside Western cultures which she used as a basis for student composing activities. The African Rhythms project offered common ground as the material "was similar to the sort of thing [undertaken] at 4th and 5th form level". Material from this project was used over three lessons along with other teaching material not directly related to the project. Her objectives for engaging students with the project material - "to achieve an interesting rhythmic piece using cross rhythms, which was exciting to listen to", combined rhythmic skill learning with the resulting and empowering excitement of achieving these skills.

The students worked individually through empirical composition, from sound to symbol, in order to "figure out how to notate their rhythms", the teacher noting that "writing helps the children to get inside the techniques they need for performance, aids confidence in performing and helps development of memory". As a class they improvised, building on the notated ideas, and, "after a lot of discussion of cross rhythm and experimentation" created a piece which was "entirely the children's work", with no final score. The piece was created in 2 to 3 hours spread over a period of time. The students chose the title *In Welcome*, "an important concept as the piece was designed to open a small composition concert" thus giving it a contextual relevance in the school society.

Students performed "by ear and from memory", and teacher and students found that "the cassette player was especially useful in a piece like this to stand back from the performance and decide whether the different sections were the right length". Nobody conducted the recorded performance, they "just worked together". Both teacher and students "enjoyed the project very much".

### 8.9.3 Analysis of one composition by students associated with teacher No. 116 written in response to the Music Weaving project (see Appendix 8 and CD for Appendix 8 Track 31)

Structure: The Harmonic Prisms project suggested the possibility of combining aspects of this procedure "with a rhythmic pulse music style, for example, Add and Subtract – *Picket Fences* and the Gamelan project…" (*The Pulse Music Album).* Structural aspects of two projects, Music Weaving and Harmonic Prisms, were combined by Teacher No. 116 in a piece titled *Sinister Music* (116.3) resulting in an expansion of the structures presented in both projects. The resulting ABA ternary harmonic structure provided common ground within compositional techniques new to the students.

The sound of the sistrum played the role of aural conductor marking the end of each harmonic section and signaling a move for players from one chord and pattern to the next. This was an addition to, and therefore expansion of, the structure of pieces given in the two projects.

Construction: The addition of a sustained bass note played by electronic keyboard and/or cello beneath moving upper parts played by xylophone, metallophone, flutes and electronic keyboard provided a timbral and aural cohesion to the composition. It expanded the concept of a repeated note presented in the project pieces and in Riley's *In C* on which the Music Weaving project was modeled.

Pitch: The overall ABA structure was reflected in a harmonic move from d minor, g minor to d minor chords. These represented a simplification of the constantly changing harmonies presented in pieces of both projects and these two minor chords related strongly to the composition title *Sinister Music.*

The piece contained a number of cells within each harmony with players moving on to another set of cells on a new harmony at a signal from the sistrum player. This simplified the concept of the pieces given in the album where every cell had to be played by every

player, the harmonic shape of the composition constantly shifting as players move through the cells.

Time: In the recording of *Sinister Music* the students play their repeated patterns with different pulses, at times moving into the same pulse then drifting out. The resulting stratified unpulsed texture with drones was an effective and imaginative alternative to, and expansion of, the sound-pulsed compositions of the album projects.

### 8.9.4 The approach and strategy of composer-in-schools teacher No. 116 in facilitating student composing activities with the Music Weaving project

Music Weaving, based on the process of Riley's *In C*, was the second project chosen for the 15 year old student group. One concentrated two-hour block of time was spent on the project. As the students had previously worked with ostinato techniques the teacher acknowledged common ground with this minimalist project material. The objectives set were "for the students to compose a short piece using 'music weaving' techniques".

Excerpts from Riley's *In C* and Reich's *The Desert Music* were played to the students before they began composing work on the project. The teacher noted that "some liked it, some found it monotonous". In a style of composing similar to that employed by with African Rhythms, the students individually "came up with the different patterns on their instruments, then they were written on the board by the students". However, there was no final score of the complete work and again the teacher's approach was from notated composition through to non-notated. The piece took two hours to compose and was "entirely the children's work". Again Teacher No. 116 noted that "writing helps the children to get inside the techniques they need for performance, aids confidence in performing and helps development of memory".

The students named the piece *Sinister Music*, although the teacher didn't "think this really sums up what the piece was about, as they named it afterwards, but they thought it was suspenseful". *Sinister Music*, piece 116.3, "turned out to be in a fairly common

format, ABA and we discussed this … [and] bridge passages, which we got over by using percussion cues". In the recording, percussion cues given by the sistrum served as a bridge and signal for the three sections. "The percussionist was, [therefore], in charge of the overall length of the piece. Her playing was used as 'cues' for the other players to change chord etc." This resulted in a combination of the common ground of a ternary structure with new ways of joining the three sections using aural cues similar to those given by the bonang player in a gamelan. The students' response to a recording of the work was pleasure at achieving a finished result. Both the teacher and the students were positive about the project material.

The recorded composition combined structural aspects of the Music Weaving project with those of Harmonic Prisms. This merging of two compositional techniques had previously been discussed in Chapter Seven with Teacher No. 116's work on the Canon project with students in the 12 year old age group.

Harmonic and process procedures were simplified in *Sinister Music* in comparison with the project models. The student instrumentalists each played their own cell repeatedly, entering in their own time. The students each played at their own pulse tempo, at times merging into a common pulse then drifting out again. This appears to have been an accidental result as the teacher stated that although "the piece was largely improvised…a [separate] pulse would have made things easier". The recording of *Sinister Music* allowed the students an opportunity to holistically evaluate and appreciate the effect of their composition and playing.

The teacher felt that the projects would not work as a sequential programme but needed to be incorporated with other methods of compositions and used individually according to the needs of different classes "as they all move at different speeds and in diffeent directions, which I like to be able to follow up". She liked the way the material was presented for this and the 12 year age group, but felt most of the material was too complicated for use with younger children without adaptation. She expressed a particular

interest in the way the projects she had used, African Rhythms, Canon and Add and Subtract introduced “different time signatures at the same time so that strong beats are not in the same place”, a concept previously introduced through movement.

Teacher No. 116’s approach of leading the students from individual notated to group non-notated composing activities reversed the usual order of composing from improvising to notated activities, from class or group activities to composing as an individual. This reflected her high ranking of composing, playing and aural training as one inter-linked activity. It also demonstrated how her experience as a professional composer, coupled with an ability to communicate with students, gave her an awareness of, and allowed her to introduce students to, an approach to composition different from those frequently encountered in the literature and in this thesis. This also saw her introducing students to issues beyond those of compositional techniques, discussed in Chapter Seven.

Teacher No. 116 displayed a sensitivity to the cultural context of different musics in several ways. She introduced her students to recorded examples only when the project offered a cultural context entirely new to the students. In this regard, therefore, no recordings were mentioned in relation to her work with Canon and African Rhythms, but works of Riley and Reich were used with Music Weaving material. Her knowledge of non-Western musics and experience as a composer allowed her to facilitate the students in combining eastern structural techniques drawn from the gamelan with Western minimalist concepts, and in doing so lead them, as student composers, into a musical dialogue with the broader society of South-East Asia.

By taking an approach to composition whereby the publicly performed product was non-notated and embodied a substantial improvisational component within a tightly constructed frame with aural conducting cues, Teacher No. 116 gave the students a highly challenging and empowering opportunity, twice a year, to work as, and therefore see themselves as, musicians and to gain self-esteem through these opportunities.

As a teacher, she understood and valued the potential and limitations of the 'modern work', minimalism, being taught, stating she "would not use these projects all the time as they don't allow for creativity of development of musical thought of 'ideas' – i.e. it is a 'system' of composition". She also acknowledged further potential of the material with which she regretted not "go[ing] into sufficient detail" and was definite about using the projects in the future.

Teacher No. 116's role was complex. Firstly, as a composer working as a teacher she was already experienced in exploring and manipulating sound and understood how to shape and build on the composition ideas offered in the project, by-passing student pastiche composing and avoiding many of minimalism's inherent performance difficulties. Secondly, as a teacher who was a composer she was able to adapt material for the age and skills level of the students, expressing an interest in both the different levels of each student's composing ability and in following the different directions each wanted to take as they sought their individual voice. This student-centred role saw each student lead their own pace and direction of composing activities within the classroom. Thirdly, the teacher was the 'enabler', and through such statements as "entirely the children's work", was not overtly joining in the compositional decision-making. Instead her student-centred approach guided the students as unfolding musical personalities, leading them into the role of creative participants and decision-makers. Finally, she utilised the group learning process, working from individual notated short compositions to one non-notated work for the whole class built from these shorter compositions, which occurred as a result of the individual students interacting with their peers.

## 8.10 Teacher No. 143 – a male music teacher and composer in a public secondary girls' school in Auckland, New Zealand (Appendix 8)

**Education, experience, preference; teaching environment; teaching perspective**

Education: arts degree, post-graduate music degree and performance qualification;

Experience: established New Zealand composer. An experienced music teacher, previous teaching of twentieth century art music included composing and analysis of scores by Stravinsky and Penderecki and the music of New Zealand composers. Students had previously been introduced to the techniques of minimalist composers "as the basis of practical creative projects". Taking an holistic approach to "some Asian music, [students undertook] pentatonic creative work".

Preference: musical preferences focused entirely on Western art music. He wrote of his interest "in minimalism since the mid-1980s and my own composition style has been strongly influenced by it since then". Apart from composing and arranging music, his personal music activities included singing and listening to music.

Teaching environment: the public secondary girls' school in Auckland, New Zealand drew its student population from a zone "covering the older established areas of the city" with parents in the "mid-upper socio-economic levels". The school had a strong interest in music, had two music rooms, a keyboard laboratory and four small studios and was well-resourced with orchestral instruments, percussion, music technology, electric guitars and drum kits. Within the New Zealand national curriculum for music, the teacher ranked practical activities of playing and composing first, followed by singing and aural training.

The class of 15 girls aged 16 to 17 years of age, were a Form 6 "music option" class of mixed ability who are discussed in the study's 15 year age group because they were in

their second to last, rather than final, year of secondary school. The teacher had taught some of the students over the previous four years, while others were either new to the school or had been taught by other colleagues in past years. "Most have good instrumental/vocal skills, many with Grade 5 plus and qualifications [from] Royal Schools of Music and Trinity College".

Teaching perspective: personal ranking of music activities within the school music programme also placed composing, improvising and arranging first with singing, instrument playing ranked second and listening third. His teaching philosophy and objectives balanced performing and composing activities. Students were to be involved "in practical music-making wherever possible …[performing] existing music as well as the creation of new music by the students themselves. Music is essentially a performance art and it is important that students come to an understanding of such concepts as form and style through their own performance work". He emphasised the importance of exposing students "to a wide range of music" and the need for them to be given the opportunity "to create music for a range of media". He adopted no particular teaching method, instead drew on "as wide a range of techniques as possible", using traditional 'English' note names.

The teacher's educational aims, submitted to the study in a General course outline (see Appendix 8) weighted performance highest, followed by composition and then aural analysis with all three activities feeding off one another. Composition often stemmed from a task design based on a model, or "set works being studied". Keyboard harmony instruction was given and aural analysis focused around "various twentieth century styles through brief study of a number of pieces". Scores could be used "as the basis of creative and practical activities in class" and "works and/or topics" for study were all drawn from the twentieth century, including "minimalism study – music by Philip Glass and Steve Reich", and works by New Zealand and Australian composers plus a selection of popular music songs especially relevant to the students' age group listening preferences and

location. A separate composition course was available if sufficient numbers were interested.

Assessment, required by the curriculum, was undertaken through process and product. Process based performance assessment, "achievement based assessment", occurred through rehearsals and involvement in 'out-of-class' activities such as choir and orchestra while compositions were "handed in for grading" and aural and history was tested.

### 8.10.1 Analyses of six compositions, three by the teacher, three by students associated with teacher No. 143 written in response to Phase Shifting and Phase Shifting Melodies (see Appendix 8 and CD for Appendix 8 Tracks 33-38)

Construction: In composition 143.2, by the teacher, an upper 5 bar phrase and lower 3 bar phrase were different in length from those of the model *Lazy, Lazy Boat* and represented a constructional development. Similarly, compositions 143.3, 143.4 and 143.5 by small student groups, combined phrase lengths different from those of the model – 143.3 three plus two bar phrases; 143.4 eight plus three bar phrases; 143.5 nine plus eight bar phrases. While these were all developments of the model's five plus four bar construction, compositions 143.4 and 143.5 extended this construction further by incorporating an antecedent/consequent phrasing within the eight bar phrases.

Time: Composition 143.5 employed a ritardando at the end of the piece in the recorded performance, a development of the model's continuation of the original tempo.

Metre: Composition 143.6, written by the teacher, combined 10/8 metre with compound duple, a development of the two metres in *Argument*, the model from the project.

Pitch: Composition 143.1, written by the teacher, was a pastiche in every way of *Wind Chimes* from the Phase Shifting project except for a transposition of the pitch set up a

minor third, and the resulting change of mode from minor to major was a development of the model.

Composition 143.2 employed a pentatonic scale of similar shape to the Japanese 'In' scale. While not always resting on the tonic of the 'In' scale, the piece retained the sound of the scale, a development beyond the two pitch sets of the model.

Instrumentation/timbre: Composition 143.4 employed a piano playing in octaves in the middle to high register, a development of the single note lines of the model. *Chitter Chat* from the album was performed with a repeated text, different from that given in the project, a development of the repeated text of the model.

Register: The second take of composition 143.3 was played by the piano up an octave, resulting in a piece placed entirely from middle C and higher, a development of the model's middle register.

### 8.10.2 The approach and strategies of Teacher No. 143 in facilitating student composing activities in response to Phase Shifting and Phase Shifting Melodies projects.

The teacher at first expressed a plan to work with the project material, "test it out", with a variety of age groups and later wrote he was "keen to try the [projects] first with students of a musical background to get used to the exercises [himself]. I have tried one or two things with other younger classes but not in a systematic manner yet". Throughout his responses he referred to this idea of 'trying out' or 'testing' the material himself, with a group of musically capable students before working with students at other levels.

Over a "half to one lesson", Teacher No. 143 engaged the students with material from the Phase Shifting and Phase Shifting Melodies projects through composing, listening and

performing activities, the three music activities he ranked highly. The project material was "similar to some practical rhythm activities" and he had used Reich's *Clapping Music* previously as the basis for some rhythm work. For teacher and students therefore, the concept of minimalism was, to some extent, familiar and provided common ground with the project work. His objectives were skill based (rhythm) and style oriented, focused on an exploration of "the concept of repetitive structure in music".

Employing his experience as a composer, the teacher made his own "version(s)" of some of the compositions in the projects (*Wind Chimes*, *Argument* and *Persian Carpet*) as he found "some of the exercises needed abbreviating" or changing. As instructor, he gave the students six 'Phase Shifting' sheets in which the phase shifting process was explained, illustrated with models from the album and written by the teacher. These served as models for composing activities and a template of pitch sets were given for work with Phase Shifting Melodies (see Appendix 8). Steve Reich's *Piano Phase* (1967) was described and an excerpt from the work printed in the fifth sheet. This served to contextualise the project pieces and those of the teacher in relation to the work of an established American minimalist composer.

Pieces from the projects were played and the cassette submitted for the study contained sixteen performances. These were all recorded in one one-hour lesson - four pieces from the album (two takes each often with an exchange of performing groups with or without instrumentation changes), three pieces written by the teacher (compositions 143.1 and 143.2 and 143.6) and three pieces written by students (compositions 143.3, 143.4 and 143.5). Performances of the phase shifting compositions were taken at a brisk tempo and each cell was repeated twice. The teacher's high ranking of singing and composition was reflected in some use of the voice through chanted text.

Students composed pieces which were largely pastiches of models from the projects. They worked in small groups, encouraging cooperative learning and collaborative

interaction with the teacher as enabler. Despite being a professional composer himself, three reasons prevented the student compositions from expanding aspects of the worksheet models. Firstly, he spent too short a time on the material constricting any exploration of the material in class time by students and himself. Secondly, by his own admission, he used this group to test the material out, thereby using them as 'guinea pigs' and, to a large degree, placing himself in the role of teacher as student. Thirdly, his own pieces were pastiches of the project models.

Performances were not conducted as students were generally able to stay together, although "some did get lost from time to time". He wrote of using a "separate audible pulse" to help keep things together at times, but this is not audible in the recording and performance were generally strong and accurate. The recording process was valued for the students' performance self-evaluation so they "could hear that rhythms were not always handled accurately".

The teacher was positive about the material and the students "positive in general". The projects fitted into the Form 6 programme "when I do a unit on minimalism – especially Glass and Reich's music [but] needs special space at other levels". For primary teaching, the projects with "easier rhythm pieces" were suggested and for secondary teaching "melodic/harmonic projects". He noted that the projects could be used as a sequential programme, "especially if integrated with aural training exercises".

While able to maintain a balance between various music activities, the teacher "would like to see some more improvisation based on repeating chord patterns" and noted that while the material formed a "good basis for creative work, some material is too complex or too extended (e.g. *Persian Carpet*)". It was good material "to extend weaker students or those with limited notational skills. Useful for beginning groups as well as musically advanced students". His experience as a composer endowed him with a positive attitude to the material and saw him adapting the project compositions because they all "found

some of the melodic/harmonic pieces rather long and sometimes overly dissonant". He aimed to "test …out" the material and this involved adapting it to the students' skills levels and interests. The line between the models from the two projects and the teacher's adaptations was often blurred and involved recycling material. *Chitter Chat* was performed with clapping and then with a different, longer text. *Wind Chimes* was performed as written with a registral change of one pitch, but fewer repetitions of each cell, and an F major version written by the teacher was performed, a rhythmic and metric pastiche of the model. *Argument* was briskly and accurately clapped twice with the two student groups exchanging roles and composition 143.6 was modeled closely on *Argument* but employed different metres and rhythms. On page five of the 'phase shifting' sheet, *Persian Carpet* from the album was reproduced but with small changes, some simplifications, made by the teacher.

Teacher No. 143 adopted several roles while working on the project material. One was teacher as student, exploring the creative material first with musically able students in order to gain an idea of what these and other students will be working with despite previous teaching experience with minimalism. This self-exploration of the material in a teaching context through a series of steps outlined on worksheets, plus the short time allocated for work with the projects, resulted in compositions by both teacher and students which did not move beyond what were largely pastiches of the models. Any development of concepts was led by the students not the composing teacher, developments which he enabled but did not actively seek.

These roles of teacher as student, and, to some degree, enabler, were drawn together by his professional composing life – the composer as teacher. As researcher, I was told to "draw [my] own conclusions about the reasons" why he altered some of the material. I concluded this was undertaken because, as a composer, he was accustomed to manipulating sound, used to 'instant composition' and adapting material. His own compositions reflected the influence of minimal music and, at times, interrupted his

school work. Minimalism, therefore, was a naturally contexted part of his own musical world, part of his own engagement with society and because of this, as a teacher he was intellectually 'in charge' of the aesthetic. It is through this relationship between the composer, contemporary art and society, plus the composer's experienced composing facility that the composer in the teacher, or perhaps in the case of Teacher No. 143, the teacher in the composer, offered to students the composing teacher as a model for themselves. And because the students were able to view themselves as composers, they were empowered and through this empowerment they engaged with society through the contemporary arts.

## 8.11 Teacher No. 147 – a male music teacher in a public secondary school in Newcastle district, New South Wales (Appendix 8)

Education; experience; preference; teaching perspective:
not addressed by the teacher[1]. Teacher No. 147 chose to write up his approach as a lesson-by-lesson diary.

Teaching environment: public secondary school in the Newcastle district, New South Wales. Class of 16 Year 10 music elective students.

### 8.11.1 Analyses of eleven compositions by students associated with teacher No. 147 written in response to Phase Shifting and Phase Shifting Melodies (see Appendix 8 and CD for Appendix 8 Tracks 33-49)

Construction: Three of the compositions, 147.1, 147.10 and 147.11 were modeled on the phase shifting melodies concepts and the latter two were pastiches of *Lazy, Lazy Boat.* Composition 147.1, however, while inaccurately played and therefore difficult to transcribe, repeated a two bar phrase and a one bar phrase, a development of the phrase lengths of the model.

[1] Teachers of music in the NSW public school system are expected to have music/education qualifications

Compositions 147.2, 147.3, 147.4, 147.5, 147.6, 147.7, 147.8, 147.9 were phase shifting compositions structurally, but not aurally, modeled on *Wind Chimes* but with only two repetitions of each cell, a development of the four repetitions required by the model.

Harmony: Compositions 147.2, 147.4 and 147.8 employed augmented fourths and 147.7 a minor seventh, resulting in angular, more dissonant pieces which expanded the pitch set and resulting harmonies beyond the tertian harmonies of the model.

Compositions 147.10 and 147.11 both employed a C major or pan-diatonic modality, a development of the bi-tonality of the model.

Metre: All compositions with the exception of 147.8 were written in simple duple or quadruple metre, a development beyond the simple triple metre of the model.

Rhythm: Compositions 147.1, 147.2, 147.3, 147.6 and 147.8 all employed syncopation, both struck (147.3) to create a 'funky' feel, and tied which resulted in a pop or jazz feel. This was a development beyond the unsyncopated rhythms of the models.

Feel or mood: Composition 147.5 employed a similar triadic pitch set as the model, with a similar effect. Compositions 147.2, 147.3, 147.6 and 147.8, however, combined syncopated rhythms, some struck, some tied, with different pitch sets and tempi resulting in a pop or jazz feel. Composition 147.8, played on low xylophone and glockenspiel captured an eerie, suspenseful mood reminiscent of 'spooky' film music. All of these pieces expanded the mood or feel beyond the 'classical' feel of the models.

### 8.11.2 The approach and strategies of Teacher No. 147 in facilitating student composing activities in response to Phase Shifting and Phase Shifting Melodies projects.

Teacher No. 147 introduced the Year 10 students, "a good group with fairly advanced knowledge and skills", to material from the Phase Shifting, Phase Shifting Melodies and

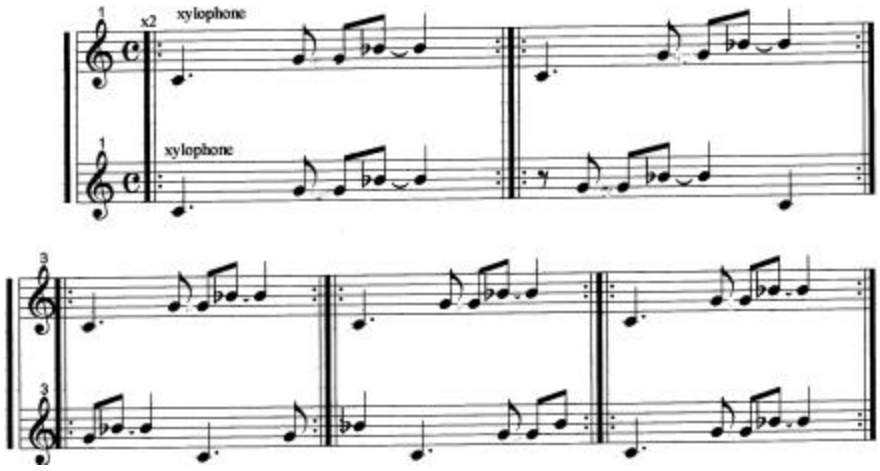
Add and Subtract projects over eight lessons. In the first lesson students heard Steve Reich's *Six Pianos* and were asked "to simply make any musical observations they could". This aural analysis resulted in students hearing "repetition, gradual changes, different instruments dominating at different times, dynamic contrasts, different rhythms being heard", some of the characteristics of minimal music. Discussion, based on the introductory notes in *The Pulse Music Album*, focused on "what pulse music is".

Students then engaged individually in instant composition, writing one measure rhythmic cells to be phase shifted and they tried to play them through. The teacher was disappointed with the results and the response of the students who seemed to quickly lose interest in the exercise. He introduced them to *Wind Chimes* and students began composing within the template of a four-note chord.

At the second lesson, a double period, the teacher wrote an example of phase shifting with pitch, using *Wind Chimes* as a model. In doing this, he explored the material first in order to gain an idea of what the students would be working with, engaged in instant composition, and, at the same time the students saw the composing teacher as a model. The students then wrote within a four-note template, a task design introduced to them in the previous lesson, and the teacher was pleased with their compositions.

While the eight phase shifting compositions submitted for the study on cassette were structurally pastiche works based on models from the projects, the student composers employed syncopated rhythms and pitch sets familiar to them through the musical interests of their peer culture thereby engaging with the contemporary arts of youth society. This resulted in short minimalist works with a jazzy (147.6, for example), pop feel or 'spooky' mood which expanded beyond those of the models.

**Figure 8.2 Composition 147. 6**




The teacher spent the last five minutes of the lesson asking students "to write a quick, brief evaluation of the work …done so far" for the study. He read and commented on the responses, finding them "quite heartening" and in doing so adopted a role of teacher as researcher. He commented positively on the students' efforts and interest level at this lesson. All of the students, except for one, had a positive or constructive comment to make about working with the material, as well as pointing out problems or negative aspects. The "new values on creating [one's] own composition", of broadening one's ideas, benefits of a new experience and the "interesting polyphon[y]" were commented on. Many found pulse music interesting to work with but did not know "how anybody can get any pleasure out of listening to it or playing it". One student remarked on how "academic" the minimalist project concepts were, a comment indicating a desire to control the compositional process rather than have a process which controlled the composer. Difficulties coordinating the rhythmic layers were pointed out and some found this a challenge.

In the fourth and fifth lessons the students performed, recorded and discussed *I think it's going to rain*. In the fifth lesson Teacher No. 147 introduced the students to Phase

Shifting Melodies through *Lazy, Lazy Boat* with this piece as a model for their compositions.

The sixth and seventh lessons were a double period when students composed phase shifting melodies, an exercise they did not attack with enthusiasm and with results which were "less than inspiring". The teacher felt that a few of the students "really didn't grasp the concept particularly well".

In the final lesson the teacher explained the concepts of Add and Subtract and students listened to examples from the tape. However, "the group has now decided they have had enough of pulse music [and] expressed their desire to do something else!!!". The teacher felt this might indicate the "limits of this music [and that] two weeks is perhaps enough".

Teacher No. 147 enjoyed the material and thought the projects worthwhile with lots to offer the students and himself, writing that he was "enjoying learning more about pulse music". The time during which he introduced students to pulse music was not ideal as the students were distracted with end of year dances and social engagements, and he remarked on having "end of year school organisation activities to contend with".

Future use of the material would be within a two-week unit on minimalism, "with snippets of the different techniques" from the album fitted into the optimum part of the teaching programme, a multi-model approach. His final comment wondered "how one would successfully adapt much of this work to six year olds".

The teacher adopted a student-centred approach exploring the projects for as long as the students' interest could be maintained. He introduced students to a piece by an established American minimalist composer thereby contextualising the music to some degree, using aural analysis to guide them in their understanding of, and insight into, the aesthetic.

At the same time he worked as a composing teacher, engaging in instant composition in front of the students. He also enjoyed exploring the material with the class, at times placing a two-way relationship between himself and the students, and learnt from the students. His interest in the material, teacher as student, led him to stretch the line between being student-centred and indulging his own interest by working with the material, new to the students and himself, at a time of year ideal for neither teacher nor students, and moving quickly through composition to playing to recording.

The double periods were the times when progress was made in the students' understanding of the material as during these two longer lessons the student compositions were written, performed and recorded. When the students became focused during these longer work sessions their ideas were imaginative. When not focused, the ideas were more closely related to the sounds of the models. The student compositions, while structurally copying the project models and often inaccurately played, displayed imaginative use of rhythmic and pitch materials, resulting aurally in a range of styles and feels, including those of some popular music, very different from those in the projects.

### 8.12 Summary of 15 year age group

The compositions submitted by Teachers No. 33, 60, 73, 89, 98, 100, 116 and 147 expanded and developed material presented in the projects and commonalities and differences were noted (Appendix 8.1 Commonalities and differences between the eight expanders). Those submitted by Teachers No. 11, 76 and 143 developed but did not expand material presented in the projects and commonalities and differences were noted (Appendix 8.2 Commonalities and differences between the three developers). Between the two groups of teachers commonalities were noted (Table 8.1 Commonalities between the eight expanders and the three developers) and differences were noted (Table 8.2 Differences between the eight expanders and the three developers).

**Table 8.1 Commonalities between the eight expanders and the three developers**

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| Education, preferences and experience: |
| • all were musically qualified;<br>• six expanders and all developers were experienced teachers;<br>• seven expanders and all developers were specialist music teachers, one expander a composer-in-schools;<br>• seven expanders and all developers noted a preference for twentieth century art music;<br>• six expanders and two developers noted they composed as personal activities and developer noted she arranged;<br>• seven expanders and all developers had had previous experience with twentieth century art music and four expanders and two developers specified through composing activities;<br>• seven expanders and all developers had had previous experience with music of non-Western cultures; |
| Teaching environment: |
| • seven expanders and all developers taught in public schools in Australasia and one expander taught in a private school;<br>• seven expanders and all developers worked with students who had elected to study music at school;<br>• all felt their music resources were reasonable. |
| Approaches and strategies: |
| • six expanders and two developers predicted the project material would fit into their music curriculum and one expander and one developer felt it would need a special place;<br>• seven expanders and two developers engaged students with the first project in the album, Phase Shifting;<br>• seven expanders and all developers noted that the project material offered common ground with previous work;<br>• six expanders and all developers adopted a strategy sequence which included performing one of the project compositions as model, discussion, composition based on the model, performance, recording, evaluation;<br>• seven expanders and both developers played excerpts of prerecorded minimalist music, five pushing through negative student response;<br>• eight expanders and all developers contextualised the project material making it relevant to contemporary society - student concert, Reich's concert, student humour, computer, contemporary performance issues, contemporary composition issues, African culture, instrument from student's traditional music brought into the project; composers as teachers; |

- all teachers adopted a prescriptive composition task design - model;
- seven expanders and all developers discussed aspects of structure and/or construction;
- all expanders and two developers worked with the project material for four to ten lessons, a long period of time, with one developer working for only one and a half lessons;
- seven teachers noted that the students took between half to three lessons to compose;
- five expanders and two developers adopted group and/or class composition which resulted in students interaction with others in the classroom and composition by committee;
- all expanders and two developers improvised;
- five expanders and all developers offered students keyed percussion;
- five expanders and two developers introduced conducting or counting to control the pulse, the same two developers also building the pulse into the performance. The two composers, one expander, one developer, embedded the conducting role into the music through timbral signals or an inbuilt pulse;
- four expanders and all developers valued recording student work for self-reflection;
- all teachers were student-centred;
- four expanders and two developers adopted aspects of the role of teacher as student;
- three expanders and one developer adopted the role of teacher as composer.

Outcomes:

- all teachers submitted compositions which developed several musical parameters;
- all teachers submitted negative comments about *The Pulse Music Album* contents;
- all teachers responded positively to their work with at least one project;
- students of four expanders and one developer responded positively to work with one or more projects involving pitch, students of three expanders and two developers gave mixed responses to work with pitch and one expander noted that students wanted to write melodies;
- students of the two teachers who engaged their students with the Canon project, one expander, one developer, expressed negative or mixed comments;
- seven expanders and all developers expressed interest in using the material in the future, one expander noting she would use it again if it fitted into the music programme.

**Table 8.2 Differences between the eight expanders and the three developers**

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| Education, preferences and experience; |
| • all expanders and one developer listed eclectic music preferences while one developer listed narrow preferences and one did not address the question;<br>• seven of the expanders taught non-Western music for its intrinsic value within its own context (to varying degrees) while two of the developers related non-Western music to Western popular and art music styles;<br>• six expanders named Asian countries with a keyed percussion (gamelan) ensemble while the two developers noted the broad term, Asian music. |
| Teaching environment: |
| • while the school populations of expanders drew on a variety of socio-economic levels, three upper, two lower and two from both strata, two of the developers drew largely from a low socio-economic group and also from the mid to upper groups;<br>• seven of the expanders taught in schools where interest in music was strong or medium to strong and gaining while two of the developers described environments with less interest and negative student attitudes;<br>• seven expanders taught students with reasonable to strong previous musical experience while the three developers worked with students whose musical knowledge ranged from strong to very weak. |
| Teaching perspectives: |
| • six expanders addressed issues of empowerment and an holistic approach to music in their music philosophies, as did one developer, while two developers did not address the issue;<br>• five expanders ranked composing, improvising and arranging activities highest while two developers ranked singing highest, one including composition in this ranking, and one adopted an integrated approach to music activities. |
| Approaches and strategies: |
| • three expanders listed aims focused on empowerment and an holistic approach, five named skills as the focus and four named composing activities while two developers focused on skills, one on culture and one named composing activities;<br>• all of the expanders focused their teaching on composing while all of the developers undertook activities which took time away - computer programme, African culture, professional composing;<br>• three expanders composed and therefore worked with the material prior to introducing it to their students while only one developer undertook this role;<br>• four expanders offered students a multi-model task design while no developers offered this to their students; |

- five expanders encouraged students to compose as individuals, while the developers did not;
- two expanders recycled material from one composition to another while developers did not;
- only two expanders submitted compositions with titles while two of the developers used titles to shape and contextualise works;
- all of the expanders noted that their students played by ear and/or memory, usually from notation as well while the developers stated that their students worked mainly from notation;
- all of the expanders submitted two of more recordings of performances of student works to the study while two of the developers submitted only one recording each of performances and one submitted six;
- four expanders selected and adapted project material according to the students' different developmental levels while one of the developers overtly undertook this strategy;
- all of the expanders were, to a greater and lesser extent, committed to the role of enabler, allowing and encouraging students to explore as they composed. The developers, however, were focused on other issues placing themselves, predominantly, in the role of instructor.

Outcomes:

- all of the expanders submitted compositions which expanded the structure of the project models and those submitted by the developers did not;
- compositions submitted by the expanders expanded and developed a wider range of musical parameters than those submitted by the developers.

**Individual histories, different paths:**

The expanders and developers adopted very similar approaches. The main difference was that two of the developers taught in negative environments, adopted skills and knowledge-focused objectives and included learning about computer software and African culture, rather than empowering self-focused objectives. The teaching of a computer software programme, African culture and the professional composing life of the third developer were time-consuming and therefore distracted from teaching minimalism and the composing process. Two submitted only one recording of a student composition to the study. Within an optimum time-frame for student concentration, therefore, two of the developers had to both encourage their students through a musical environment with negative hurdles and negotiate their way around extra-musical considerations, one with a long learning curve for the teacher, leaving insufficient time to lead students through to

expansion of compositional concepts and recording of their composition for evaluation. For the composing teacher, time allocated for introducing students to, and trying out, the project material was too short for exploration through the composing process by students and teacher.

In Chapter Nine interpretative reports drawn from the teachers' profiles and the associated student compositions of teachers working with students in the eighteen year age group of the study are discussed.