

## Appendix 9

### Appendix for Chapter Eight 18 year age group

Teacher No. 45

<b>Teacher's profile No. 45: 18 year age group</b>	
<b>Identification</b>	
<p><b>Teacher:</b> No. 45 – music lecturer, teacher training tertiary institution. (I worked with the lecturer).</p> <p><b>Gender:</b> male</p> <p><b>Study age group:</b> 18 years</p> <p><b>Location of institution:</b> Sydney</p> <p><b>Study projects:</b> Additive Rhythms, Phase Shifting, Music Weaving</p> <p><b>Study timing:</b> 1990</p> <p><b>Score and transcriptions:</b> 45. 1 – 45.19</p> <p><b>Recording (s):</b> CD 9 Tracks 1 – 13</p>	
<b>Education, preference, experience</b>	
<p><b>Qualifications:</b> B.Mus.Ed., M.Mus.</p>	
<p><b>Preferences (experience) –</b></p> <p><b>Music Activities:</b></p> <p>Play</p> <p>Sing</p> <p>Write/arrange</p> <p>Improvise</p> <p>Dance</p> <p>Listen</p> <p>Read books</p> <p>Conduct</p>	<p><b>Preferences (experience) -</b></p> <p><b>Musical styles:</b></p> <p>Western classical music – pre 20<sup>th</sup> century</p> <p>Western classical music – 20<sup>th</sup> century</p> <p>Minimal music</p> <p>Folk</p> <p>Music of other (?) cultures</p>
<p><b>Years of teaching experience:</b> 30 years</p> <p><b>Years of teaching in this institution and ages taught:</b> 20 years. I do undertake workshops with kids – in contact with [younger age groups].</p> <p><b>Years of experience teaching the age group of the study:</b> 20 years</p> <p><b>Experience teaching twentieth century art music styles:</b></p> <p>Atonal motivic system</p> <p>Note set systems</p> <p>Vocal and orchestral technique</p> <p>Serial systems</p> <p>Various composers for reference.</p> <p><b>Experience teaching music of other cultures:</b></p> <p>Australia – ethnomusicology</p> <p>Indonesia – percussion work</p> <p>Armenia – movement</p> <p>Israel – movement</p>	

Nigeria – percussion work
<b>Teaching environment</b>
<p><b>School -</b>  <b>School situation:</b> Teacher Training College, university, Sydney  <b>Public or private:</b> public  <b>How long has the school been open:</b> since 1970  <b>Level:</b> tertiary – trainee teachers  <b>Number of students:</b> 300-400  <b>Socio-economic background of parents:</b> very varied, not just from Sydney’s north shore.  <b>General information about the school:</b> teacher training, mainly for primary level.  <b>School’s interest in music:</b> strong  <b>Extra-musical activities:</b> choir, instrumental groups.  <b>Venue and resources:</b> well-equipped music room and storage room.  <b>Curriculum:</b> devised by music department of the university.  <b>Curriculum ranking of music activities:</b> no hierarchy</p> <p><b>Class –</b>  <b>Class age:</b> students were 18 years plus  <b>Gender of class:</b> males and females  <b>Class level:</b> Tuesday and Wednesday classes of a one-year teaching diploma. Last students for this diploma which was soon to be replaced by a B.Ed. Most of the students were undertaking the teaching diploma to work with students at primary level.  <b>Class mix:</b> mixed ability  <b>Music background of the class:</b> these students had chosen music as an extra seminar subject.  <b>Number of music lessons for project class per week:</b> one special music and one general music class a week.  <b>Length of lessons:</b> 2 hours</p>
<b>Teaching approach</b>
<p><b>Teaching approach –</b>  <b>Teaching philosophy:</b> lift level of consciousness of human being; to be more musical; to reach a high level in the world of music; doesn’t matter if students (in schools) are musical or unmusical.  <b>Educational aims:</b> 1. Techniques in composition, improvisation and performance; 2. Performance of composition.  <b>Personal ranking of music activities:</b> no hierarchy but would differ according to student.  <b>Educational objectives:</b> 1. Unity and balance; sustaining mood; intensity; motifs; sets; levels; minimal techniques – add/subtract, phase shifting, weaving; overlaying of ostinati, use of space, programme devices – character – quality, events – sequence, colours – quality, changing patterns – sequence; notation – graphic and traditional; instruments – metal, wood, stone, membrane, solid, hollow – tuning.  2. This work can be for dancers with percussion accompaniment or for percussion alone.  <b>Teaching method:</b> Eclectic approach. Lots of Orff ideas, Kodaly/Orff ideas. Be as thorough as possible with whatever information is in front of you.</p>

**Pitch terminology and systems:** sol-fa with students who I have time with to develop relative sense of pitch, major or minor. Hand signs used. Sol-fa linked to keys.

**Harmony terminology and systems:**

**Rhythm terminology and systems:** French time names, counting beat with Dutch time names (one-a (simple metre), one-a-ka (compound metre)). Good to have a kinesthetic sense.

**Evaluation and assessment:** Own choice and college course assessment.

**Method of evaluation/assessment:**

1. Observation when students are working;
2. Progressive assessment tests in some areas;
3. Final written test in some areas

**Preliminary opinion of The Pulse Music Album project material:** yes, project material will fit into the music programme as part of Percussion and Movement II (see assessment and content sheet).

### **Projects from The Pulse Music Album**

**Project names:** Additive Rhythms, Phase Shifting, Music Weaving

**Number of lessons:** Additive Rhythms two weeks; Phase Shifting one week; Music Weaving two weeks.

**Objectives:** (refer to objectives on assessment and content sheet for Percussion and Movement II). To create a complete piece, mood, balance – colour. To play the pieces expressively.

**Music skills/activities:** Movement, instrument playing.

**Familiarity of material:** Not really. Basic minimal thinking. Practical things they could base their teaching on. Triad doing minimal music a few years ago. Didn't work. ostinato for each person, one metre, play a number of bars and then vary it. Improvisation within rhythmic framework. Structurally weak.

**Technology – recording of minimalist music:** minimal music excerpts (not from *The Pulse Music Kit* cassette) played.

**Composing activities –**

**Structure/form:** discussion of balance

**Composition pieces/exercises from *The Pulse Music Album* projects:** yes

**Compositions – original:** written by students and teacher.

**Compositions – time taken to write:** one week

**Student input:** yes.

**Composing as an incentive to the students' music learning:** Yes – pleased to hear their compositions although some were very unfinished and not properly thought through - many parameters missing.

**Student composition titles:** yes.

**Performing from notation, by ear, by memory:** notation.

**Improvisation:** Rhythmic build ups – four ostinati together. Layers interchangeable. Listen for textures.

**Conducting:** yes and students did too.

**Recording student work:** yes.

**Response to the minimalist projects – students:** Final assignments (written and performed) indicate all aspects were understood and enjoyed. Reason: work is within [their] musical control and can range from simple to complex.

**Response to the minimalist projects – lecturer:** Yes, I did enjoy the material.

**Tuesday's class - researcher's diary**

First lesson: Additive Rhythms. Body percussion and untuned percussion.

Second lesson: Started with a two-pitch set piece, *Drum Talk* composed with the students – students moved to it then played with drums. Then played my chord piece *Full Moon*. Shaped it into something complete with xylophones and metallophones. Recorded and listened to performance. Set homework composition task.

Third lesson: Played some of the pieces written by students. Introduced the process of Riley's *In C* played on untuned percussion or chopsticks. Played *Tree of Bells* from the project, a tuned percussion piece using CEGABC' with chime bars, glockenspiels, metallophones. Chose two students to write a piece.

Fourth lesson: Students introduced to Phase Shifting

Ostinati, two layers, movement and sound. Suggested they could use ideas in school.

Have these structures but discuss how to make them into a piece. Played their pieces.

The lecturer encouraged the students to 'feel when you're ready to come in' when performing pieces modeled on, we recorded them and discussed balance and cohesion.

**Wednesday's class – researcher's diary**

First lesson: Additive Rhythms. Played part of the opening of *Akhmaten* by Glass; opening of *Music in 12 Parts* by Glass so they could hear the clear 1 + 1 + 1 structure. Used movement first – body percussion - pat, clap etc.

Sounds voiced

Percussion untuned. Students to write their own pieces.

Second lesson: Few basic pieces forthcoming from students, others more complete.

Played through them all and finished them up. They were incomplete and the teacher told me to ensure they write a complete composition.

Third lesson: Discussed shortcomings of last week's pieces – not pieces but exercises.

Today played a piece I wrote trying to capture a mood, *Full Moon*; balance through dynamics and the rise and fall of pitch; colour through instrumental choice to catch mood, and instrumental choice determined the choice of pitches. Played pieces modelled on Riley's *In C* for untuned and tuned instruments.

Fourth lesson: Played the students' pieces, recorded them and talked of unity and balance and sustaining mood, motives.

Fifth lesson: Introduced students to Phase Shifting. Discussed the three minimalist processes then asked students to incorporate them into pieces of their own.

**Teacher's response to working with material from The Pulse Music Album**

**How the project(s) fitted into the music programme:** Incorporated as part of percussion and movement in twentieth century.

**Students response to minimalist project material:** Final assignments (written and performed) indicate all aspects were understood and enjoyed by the students. Reason: work is within musical control and can range from simple to complex.

**Future use of project material:** Enjoyed working with the projects and would work

with them in the future.

**The album of projects -**

**The projects as a sequential programme:** No, too confining to teach just that – not enough time to stay with one style.

**Age group suited to the projects:** Some projects have been tried out with various classes.

**Student teacher in training's response to working with material from The Pulse Music Album**

**Project name :** Phase Shifting


**Number of lessons:** one

On prac I used very simplified minimal techniques with a composite first/second class. The lesson was aimed at learning about long and short sounds.

We began by having a line on the board and dividing it into long and short dashes

e.g. 

We clapped this in order to establish the rhythm and then broke it up into bars –

e.g. 

This was then treated (*phase shifted*) as we'd done in class, each bar repeated about 6 times. Instruments were then introduced to add interest.

The technique was useful as it reinforced the information for the children. Adding a title to the piece also motivated the children. I found that this technique could become monotonous or boring if the teacher was not continually alert. Unfortunately I didn't get a chance to do a follow-up lesson which would have been very useful.

Over all the techniques was useful and I'm glad I got a chance to use it. Thanks for showing it to us.

## Compositions associated with Teacher No. 45 written in response to the Music Weaving, Harmonic Prisms, Add and Subtract and Phase Shifting projects

### 45.1 (Add and Subtract)

The musical score for '45.1 (Add and Subtract)' consists of three systems of staves. The first system (measures 1-3) is marked *mp* and features a melody in the upper voice and a bass line in the lower voice. The second system (measures 4-6) is marked *f* and continues the melodic and bass lines. The third system (measures 7-9) is marked *p* and concludes the piece. The score includes various time signatures and rests, indicating a complex rhythmic structure.

1.	composed by students and researcher	6.	crotchet = c.108
2.	performed with drums	7.	score transcribed by researcher
3.	each cell repeated four times	8.	one complete take. Strong, accurate performance.
4.	playing time 1 min 25 secs	9.	CD for Appendix 9 Track 1
5.	development of dynamics		

### 45.2 *Full Moon* (Add and Subtract and Harmonic Prisms)

The musical score for '45.2 Full Moon' is titled 'Full Moon' and is marked 'moderno - evocative'. It features a melody in the upper voice and a bass line in the lower voice. The score is divided into three systems. The first system (measures 1-3) is marked *pp* and includes the instruction 'x5 - xylophones'. The second system (measures 4-6) is marked *mf*. The third system (measures 7-9) is marked *ppp*. The score includes various time signatures and rests, indicating a complex rhythmic structure.

1.	composed by researcher	6.	crotchet = c.95
2.	performed with xylophones and metallophones	7.	score by researcher
3.	each cell repeated five times	8.	two takes. Evocative, accurate performances (2 <sup>nd</sup> take on CD).
4.	playing time 1 min 30 secs	9.	CD for Appendix 9 Track 2
5.	expansion of construction		

## 45.3 (Add and Subtract)

The musical score for 'Add and Subtract' is written for metallophones. It consists of two staves. The first staff begins with a treble clef, a key signature of one flat (B-flat), and a 2/4 time signature. The tempo is marked 'Andante'. The score starts with a first-measure rest, followed by a series of eighth-note patterns. A 'x4' multiplier indicates that the first four measures are repeated. The piece concludes with a final cadence. The second staff continues the piece with a similar rhythmic pattern, also marked with a 'x4' multiplier.

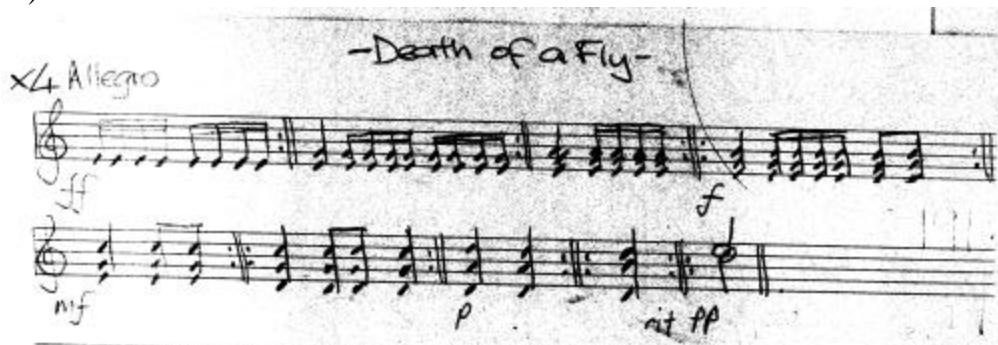
1.	composed by student	6.	crotchet = c.72
2.	performed with metallophones, student composer conducting	7.	score transcribed by researcher
3.	each cell repeated four times	8.	one complete take. Accurate performance.
4.	playing time 50 secs	9.	CD for Appendix 9 Track 3
5.	expansion of construction		

## 45.5 Caroline H's 'In C' piece (Music Weaving)

The handwritten musical score for 'In C' piece is written for xylophones and metallophones. It consists of two staves. The first staff begins with a treble clef, a key signature of one flat (B-flat), and a 2/4 time signature. The tempo is marked 'Andante'. The piece starts with a first-measure rest, followed by a series of eighth-note patterns. The score is marked with dynamics 'p' (piano) and 'mf' (mezzo-forte). The piece concludes with a final cadence. The second staff continues the piece with a similar rhythmic pattern, also marked with a 'x4' multiplier.

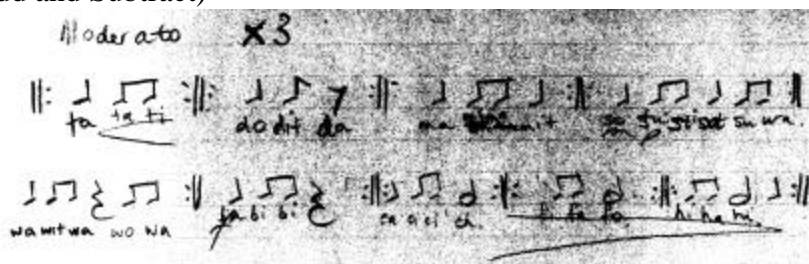
1.	composed by female student	6.	crotchet = c.57
2.	performed on xylophones and metallophones	7.	score written by student composer
3.	cells repeated as often as player chooses	8.	one complete take. Evocative, accurate performance.
4.	playing time 2 mins 25 secs	9.	CD for Appendix 9 Track 5
5.	pastiche		

45.6 (Written as Add and Subtract; performed as Add and Subtract and Music Weaving processes)



1.	composed by male student	6.	crotchet = take 1 c.79 take 2 c.82
2.	performed on xylophones and metallophones	7.	score written by student composer
3.	take 1 – each cell repeated four times; take 2 – each cell repeated as often as player chooses	8.	two complete takes. Both accurate. take 1 – Add and Subtract process take 2 – Music Weaving process
4.	playing time take 1 min 04 secs take 2 1 min 37 secs	9.	CD for Appendix 9 Tracks 6 and 7
5.	expansion of construction		

45.7 (Add and Subtract)



1.	composed by female student	4.	development of instrumentation
2.	written for voices	5.	score written by student composer
3.	cells repeated three times		

45.8 (Add and Subtract)



1.	composed by female student who wrote 45.5	4.	pastiche
2.	instrumentation not specified	5.	score written by student composer
3.	cells repeated four times		

## 45.9 (Add and Subtract and Harmonic Prisms)

1.	composed by student	4.	expansion of construction
2.	written for xylophones, metallophones and glockenspiel	5.	score written by student composer
3.	cells repeated four times		

## 45.10 (Music Weaving)

1.	composed by male student	6.	crotchet = c.134
2.	performed on xylophones and metallophones	7.	score written by student composer
3.	cells repeated as often as player chooses; A pulse played on glockenspiel	8.	two complete takes. Evocative, accurate performances.
4.	playing time 1 mins 48 secs	9.	CD for Appendix 9 Track 8
5.	expansion of the effect		

45.11 Caroline C's *Adagio* (Music Weaving)

*Adagio*

pp<sup>a</sup> ga ga di ki-tika ta ppp pp p stamp  
 mf sch sch sch - clap. ah eee f blab blab blab blab  
 i = clap  
 j = clap  
 U = "  
 stamp.  
 pastech.  
 2 voices

1.	composed by female student	6.	crotchet = take 1 - c.77 take 2 - c.155
2.	performed with take 1 - body percussion take 2 - voices	7.	score written by student composer
3.	cells repeated as often as player chooses	8.	two accurate takes
4.	playing time take 1 - 2 mins 14 secs take 2 - 1 mins 13 secs	9.	CD for Appendix 9 Tracks 9 and 10
5.	development of time and instrumentation		

45.12 *Twinkle, twinkle little star* (Phase Shifting accompaniment)

1.	accompaniment composed by researcher	6.	crotchet = c.116
2.	performed on metallophones with voices singing <i>Twinkle, Twinkle Little Star</i>	7.	score written by researcher
3.	cells repeated four times - phase shifting	8.	two complete takes - second on CD. Accurate performances.
4.	playing time 48 secs	9.	CD for Appendix 9 Track 11
5.	pastiche		

45.13 *The Train* (Music Weaving and Add and Subtract)

**The Train**

Andante

1.	composed by female student	6.	crotchet = c.134
2.	performed on metallophones and piano	7.	score written by student composer but very pale copy submitted. Computer copy generated by researcher.
3.	cells repeated as often as player chooses	8.	two complete takes – the first without tempo changes, the second with and this take is on the CD
4.	playing time 3 mins 15 secs	9.	CD for Appendix 9 Track 12
5.	expansion of construction, tempo and effect		

## 45.14 (Music Weaving)

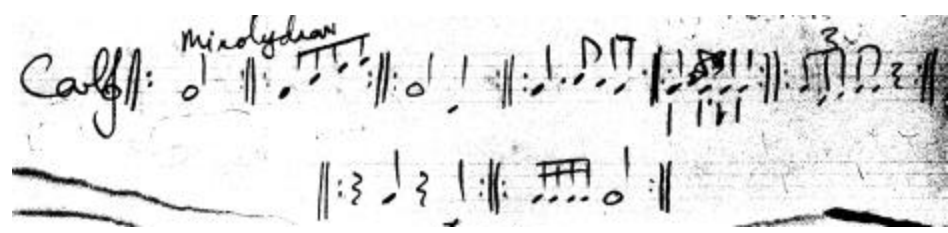
Andante

BODY PERCUSSION

click  
patsch  
rest (hands)  
clap

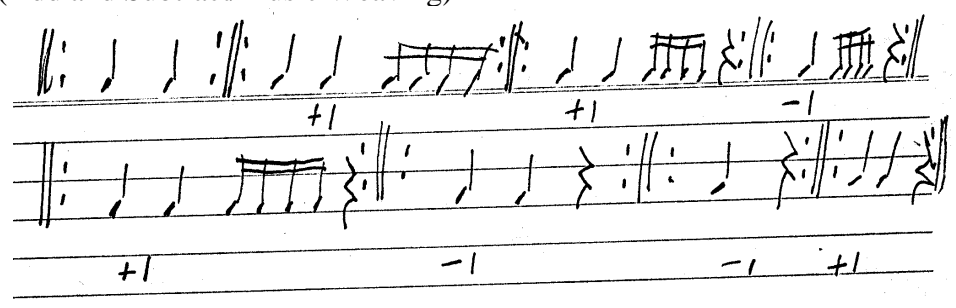
1.	composed by female student who wrote 45.13	4.	development of time and timbre/instrumentation
2.	performed with body percussion	5.	score written by student composer
3.	repetition of cell and process not specified; claves playing crotchet pulse		

45.15 (Music Weaving)



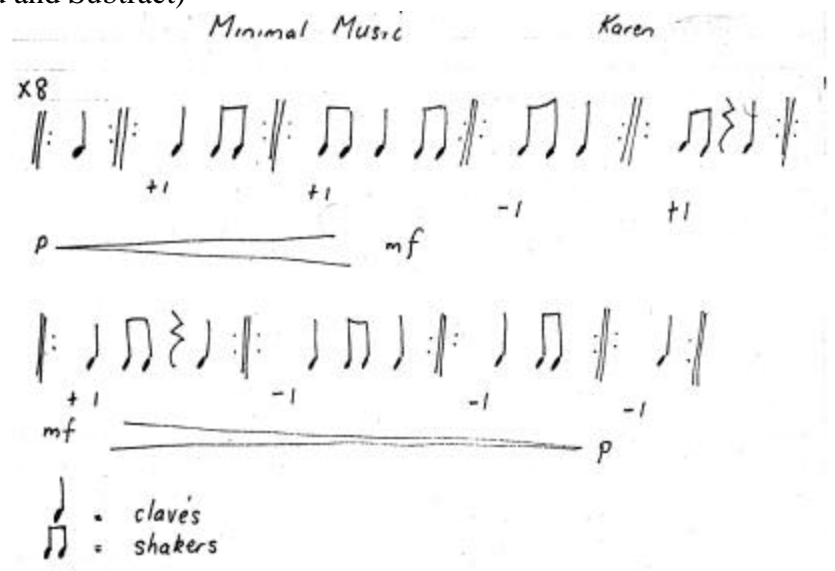
1.	composed by male student	6.	crotchet = c.70
2.	performed on metallophones	7.	score written by student composer
3.	cells repeated as often as player chooses; claves playing crotchet pulse	8.	two takes – some rhythmic inaccuracies
4.	playing time 2 mins 23 secs	9.	CD for Appendix 9 Track 13
5.	pastiche		

45.16 (Add and Subtract/Music Weaving)



1.	composed by female student	4.	pastiche
2.	instrumentation unspecified	5.	score written by student composer
3.	repetition of cell unspecified		

45.17 (Add and Subtract)



1.	composed by female student	4.	pastiche
2.	composed for claves and shakers	5.	score written by student composer
3.	cells repeated eight times		

## 45.18 (Add and Subtract)

1.	composed by female student	4.	pastiche
2.	instrumentation unspecified	5.	score written by student composer
3.	cells repeated eight times		

## 45.19 (Add and Subtract/Music Weaving)

Done sitting down on a CHAIR

Melanie

♩ . = patsch.

♩ ~ = hands crossing in front of body in the air.

♪ = left foot; right foot.

1.	composed by female student	4.	pastiche
2.	composed for body percussion with performer seated	5.	score written by student composer
3.	repetition of cell unspecified		

## Teacher No. 53

<b>Teacher's profile No. 53: 18 year age group</b>			
<b>Identification</b>			
<p><b>Teacher:</b> No.53 – music lecturer, teacher training tertiary institution  <b>Gender:</b> female  <b>Study age group:</b> 18 years  <b>Location of institution:</b> country Victoria  <b>Study project:</b> Phase Shifting  <b>Study timing:</b> 1990  <b>Scores and transcriptions:</b> 53.1 to 53.28  <b>Recordings:</b> CD 9 Tracks 14 - 41</p>			
<b>Education, preference, experience</b>			
<p><b>Qualifications:</b> Diploma of Music; Associate Diploma of Speech and Drama; Graduate Diploma in arts education (Visual and Performing arts); graduate Diploma in Media Studies.</p> <table border="0"> <tr> <td style="vertical-align: top;"> <p><b>Preferences (experience) – Music Activities:</b> Play Write/arrange Listen</p> </td> <td style="vertical-align: top;"> <p><b>Preferences (personal) - Musical styles:</b> Western classical twentieth century Jazz Minimal music Folk Music of other cultures</p> </td> </tr> </table> <p><b>Years of teaching experience:</b> 12 years  <b>Years of teaching in this school and ages taught:</b> 2 – 18 years plus.  <b>Years of teaching the age group of the study:</b> 1  <b>Experience teaching twentieth century art music styles:</b> not so far.  <b>Experience teaching music of other cultures:</b> Aboriginal, Japanese, Balinese, Africa. style, tone colour, mood etc.</p>		<p><b>Preferences (experience) – Music Activities:</b> Play Write/arrange Listen</p>	<p><b>Preferences (personal) - Musical styles:</b> Western classical twentieth century Jazz Minimal music Folk Music of other cultures</p>
<p><b>Preferences (experience) – Music Activities:</b> Play Write/arrange Listen</p>	<p><b>Preferences (personal) - Musical styles:</b> Western classical twentieth century Jazz Minimal music Folk Music of other cultures</p>		
<b>Teaching environment</b>			
<p><b>School</b>  <b>Public or private:</b> public university  <b>How long has the school been open:</b>  <b>Level:</b> tertiary  <b>Number of students:</b>  <b>Socio-economic background of parents:</b> middle-class Anglo-Saxon – mixture of rural (majority) and urban students.  <b>General information about the school:</b> Our timetable is set in concrete.  <b>School's interest in music:</b> Weak. Much emphasis is placed on business studies and commerce, areas that will attract fee-paying students.  <b>Venue and resources:</b> room that has access to the music storeroom. Many tuned percussion instruments; some untuned percussion instruments; piano; cassette/record player (no records); blackboard and white board (with stave markings).  <b>Curriculum:</b> New South Wales, Victoria, Orff, Kodaly.  <b>Curriculum ranking of music activities:</b> (unranked) recorder/instrument playing,</p>			

singing, movement, improvisation/composition/arranging, listening

**Class –**

**Class age:** 19 years and older - average age c.20 years.

**Gender of class:** males and females

**Class level:** Creative and Expressive Arts – third year subject for primary teaching students who have completed prior semesters of creative arts subjects.

**Class mix:** mixed ability, mixed ages.

**Music background of the class:** One semester: 2 hour workshop per week; 2 hour tutorial (mostly student seminar presentations); 2 hour studio session (recorder or guitar tuition).

**Number of music lessons for project class per week:** one x two hour class

### **Teaching approach**

**Educational aims:** course outline – the subject aims to develop students' existing skills, understanding and sensitivity to music through practical experiences which include listening, moving, singing, playing instruments and presenting seminars.

#### **Educational objectives:**

1. demonstrate a foundation of knowledge about, an understanding of and a sensitivity to a range of musical experiences;
2. be able to exhibit skills, conceptual awareness, problem-solving abilities and self-evaluation techniques in the use of various sound-making resources, in a cultural and environmental setting appropriate to the child's level of development;
3. have developed a more positive self-image as a creative person;
4. have become aware of the possible music learning experiences commensurate with the child's level of development;
5. display a working knowledge of resources within the community, including personnel and materials;
6. demonstrate an ability to integrate all areas of music making, in activities which will later form the basis of sequential learning experiences for children;
7. have developed a comprehension of the significance of music to themselves and to children, through a wide range of approaches.

**Teaching method:** Orff, Kodaly. For this course - workshop, studio, tutorial classes and associated school-based activities.

**Pitch and rhythm terminology and systems:** a combination of sol- fa and American rhythm value names.

**Evaluation and assessment:** assessment tasks i.e. compositions, lesson planning etc.

**Preliminary opinion of The Pulse Music Album project material:** this year I am attempting to have the students experience various 20<sup>th</sup> century composition styles e.g. graphic notation, pulse music, music and technology (computers) etc.

### **Projects from The Pulse Music Album**

**Project name:** Phase Shifting

**Number of lessons:** 2

**Familiarity of material:** unfamiliar

**Objectives:** The students become aware of the techniques used by composers of Minimal or Pulse music, and are able to use them.

The students can use conventional notation to record and perform compositions.

**Music skills/activities:** Orff style rondo compositions; graphic notation; free form

compositions, reading from notation.

**Technology – recordings of minimalist music:** I played the first piece, Steve Reich's *Six Pianos*. The students generally disliked the sound. The next piece by Philip Glass was appreciated more. I imagine this is because it is closer to what they consider to be mainstream music.

#### **Composing activities -**

**Sound and symbol:** symbol to sound

**Structure/Form:** Discussed as a contrast to other compositional forms.

**Composition pieces/exercises from *The Pulse Music Album* projects:** from the album as reference.

**Compositions – original:** student

**Compositions – time taken to write:** 3 to 4 weeks.

**Composition – the process:**

**Student Input:** in the area of instrumentation.

**Composing as an incentive to the students' music learning:** their reading skills improved immensely. I was impressed with their ability to realise the rhythms they had written.

**Student composition titles:** only occasionally – the title rarely had anything to do with the sound of the piece.

#### **Performance -**

**Performing from notation, by ear, by memory:** notation

**Improvisation:** in the composition of Orff-style only.

**Conducting:** They mostly counted themselves in various ways, and then maintained the momentum with their own counting.

**Pulse:** Sometimes a separate pulse was added and it varied in speed according to their instrumental ability.

#### **Appraisal, evaluation –**

**Recording student work:** Their pieces were recorded and played back to them. They were so concentrated on their performance that often they had not heard their pieces.

**Response to the minimalist projects – students:** they disliked the project at first, but became quite involved with the music when they wrote and performed their own.

Student comments: Gave me a sense of achievement; really enjoyed it; hated it at first, but after playing I loved it; very relaxing; would definitely use the ideas with children.

**Response to the minimalist projects - teacher:** I enjoyed the project. It was really good to be able to involve students in 'real' 20<sup>th</sup> century composition techniques. It stretched their ears quite a bit.

**Music lessons planned in advance or immediate:** inserted into course outline.

#### **The album of projects -**

**The projects as a sequential programme:** I did use the projects sequentially, in the order given in your Album and found it to be quite successful.

**Age group suited to the projects:** I think the projects are suited to both primary and

secondary students, depending on their musical experience and their knowledge of Pulse as a compositional technique. Most of my students were quite keen to try the techniques with children they will be teaching, the majority of these will be primary children.

**Strengths and weaknesses of the projects:**

**Future use of project material:** The students felt they would have no hesitation in using it in their future music programmes with young children.

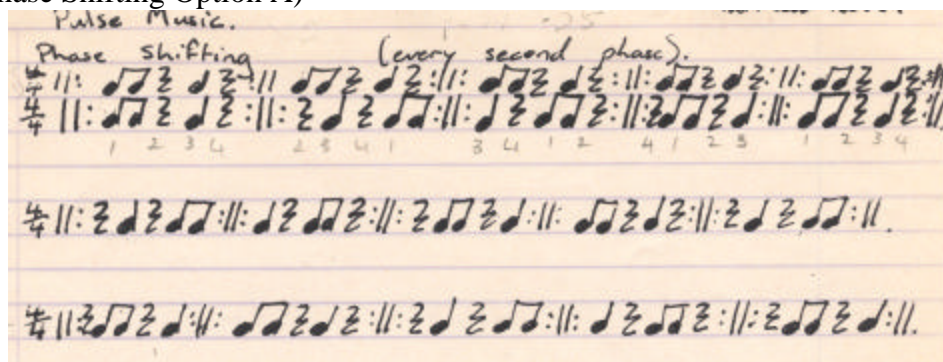
We have a third-year subject called Creative and Expressive Arts, in which Primary Teaching students who have completed a semester of Foundations in Art Education and also Foundations in Music Education use their basic skills in these Arts to create works for themselves. So far, I have based the assignments on composing in as many styles as possible, especially 20<sup>th</sup> century techniques. I will continue to use as much of the Pulse Music projects as I can along with the other devices we use.

**Teacher's response to minimalist project material:** My students and I had a great deal of pleasure working through some of the projects – it stretched their ears quite a bit!

**Students response to minimalist project material:** The students enjoyed the project, and overwhelmingly felt they had more understanding of the style of music.

**Compositions associated with Teacher No. 53 written in response to the Phase Shifting project**

53.1 (Phase Shifting Option A)



1.	composed by 3 male students	6.	crotchet = c.97
2.	performed on untuned percussion – drum and sticks	7.	score written by student composer
3.	cells repeated twice	8.	one take – pulse uneven, inaccuracies
4.	playing time 25 secs	9.	CD for Appendix 9 Track 14
5.	pastiche		

## 53.2 Sarah in the Evening (Phase Shifting Option B)

Sarah in the evening

1.	composed by 3 male students who wrote 53.1	6.	crotchet = c.51
2.	performed on metallophones and drum	7.	score written by student composer
3.	cell repetition difficult to determine	8.	one take – inaccuracies
4.	playing time 34 secs	9.	CD for Appendix 9 Track 15
5.	development of pitch set and instrumentation; recycling of rhythmic material from 53.1		

## 53.3 (Phase Shifting Option A)

Phase Shifting - Option A.

1.	composed by 2 female and 2 male students	6.	crotchet = c.113
2.	performed on untuned percussion – maracas, clapping, xylophone	7.	score written by student composer
3.	cell repetition difficult to determine	8.	one take – performers entered with layers one by one
4.	playing time 2 mins	9.	CD for Appendix 9 Track 16
5.	development of metre and of construction through performance changes		

## 53.4 (Phase Shifting Option B)

Phase Shifting - Option B

Phase Shifting

Write one measure of music enclosed by repeat signs.

Layer 1

Layer 2

1.	composed by 2 female and 2 male students who wrote 53.3	6.	crotchet = c.128
2.	performed on metallophones and maracas	7.	score written by student composer
3.	cell repetition varied	8.	one take – steady pulse with some inaccuracies
4.	playing time 30 secs	9.	CD for Appendix 9 Track 17
5.	development of metre and instrumentation; recycling of rhythmic material from 53.3		

## 53.5 (Phase Shifting Option A)

REPEAT EACH BAR TWICE.

1.	composed by 3 female and 1 male students	6.	crotchet = c.113
2.	performed by clapping	7.	score written by student composer
3.	each cell repeated twice	8.	one take – not all layers played
4.	playing time 20 secs	9.	CD for Appendix 9 Track 18
5.	pastiche		

## 53.6 (Phase Shifting Option B)

Repeat each bar twice.

1.	composed by 3 female and 1 male students who wrote 53.5	6.	crotchet = c.119
2.	performed with metallophones	7.	score written by student composer
3.	each cell repeated twice	8.	one take – pulse layer not played
4.	playing time 20 secs	9.	CD for Appendix 9 Track 19
5.	development of pitch set and instrumentation; recycling of rhythmic material from 53.5		

## 53.7 (Phase Shifting)

*Number 1 - Untuned Percussion*

1.	composed by 4 female students	6.	crotchet = c.120
2.	performed on untuned percussion – castanets and maracas	7.	score written by student composer
3.	cells repeated twice	8.	one take – vigorous, accurate performance
4.	playing time 22 secs	9.	CD for Appendix 9 Track 20
5.	pastiche		

## 53.8 (Phase Shifting)

*Number 2 - Tuned Instruments Soft & medium*

1.	composed by 4 female students who wrote 53.7	6.	crotchet = c.130
2.	performed with metallophones and xylophone	7.	score written by student composer
3.	cell repetition difficult to determine	8.	one take – inaccurate performance
4.	playing time 22 secs	9.	CD for Appendix 9 Track 21
5.	pastiche; recycling of rhythmic cell from 53.7		

## 53.9 (Phase Shifting Option A)

The image shows a musical score for six staves, numbered 1 to 6. Each staff begins with a '4' written vertically to its left. The notation consists of rhythmic patterns of eighth and sixteenth notes, with some notes beamed together. The score is organized into five measures, each separated by a vertical bar line. The patterns in each staff are phase-shifted relative to each other, creating a complex rhythmic texture.

1.	composed by 3 female students	6.	crotchet = c.110
2.	performed on untuned percussion – castanets and bells	7.	score written by student composer
3.	cells repeated five times?	8.	one take – only two layers played
4.	playing time 41 secs	9.	CD for Appendix 9 Track 222
5.	pastiche		

## 53.10 (Phase Shifting Option B)

The image shows a musical score for six staves, numbered 1 to 6. Each staff begins with a '4' written vertically to its left. The notation consists of rhythmic patterns of eighth and sixteenth notes, with some notes beamed together. The score is organized into five measures, each separated by a vertical bar line. The patterns in each staff are phase-shifted relative to each other, creating a complex rhythmic texture.

1.	composed by 3 female students who wrote 53.9	6.	crotchet = c.108
2.	performed with xylophones	7.	score written by student composer
3.	cell repetition difficult to determine	8.	one take – only two layers played with one part dropping out for several bars
4.	playing time 1 min 2 secs	9.	CD for Appendix 9 Track 23
5.	development of pitch set and instrumentation; recycling of rhythmic material from 53.9		

53.11 *Pump It Up Baby!* (Phase Shifting Option A)

OPTION 1. "Pump IT UP BABY!"

(1 2 3 4)

(1 2 3 4)

(2 3 4 1) (1 2 3 4)

(3 4 1 2) (1 2 3 4)

(4 1 2 3) (1 2 3 4)

(1 2 3 4) (1 2 3 4)

1.	composed by 3 female and 2 male students	6.	crotchet = c.117
2.	performed on untuned percussion – drum, shakers, cymbal, sticks	7.	score written by student composer
3.	cells repeated twice?	8.	one take – unsteady pulse and inaccuracies
4.	playing time 25 secs	9.	CD for Appendix 9 Track 24
5.	pastiche		

53.12 *We've Got the Pulse* (Phase Shifting Option B)

(B)-OPTION "WE'VE GOT THE PULSE"

1.	composed by 3 female and 2 male students who wrote 53.11	6.	crotchet = c.115
2.	performed with metallophones and xylophone on pulse	7.	score written by student composer
3.	cell repetition difficult to determine	8.	one take – pulse steady with rhythmic inaccuracies
4.	playing time 25 secs	9.	CD for Appendix 9 Track 25
5.	development of pitch set, time (ostinato as pulse) and instrumentation; recycling of rhythmic material from 53.11		

## 53.13 (Phase Shifting Option A)



1.	composed by 4 students	6.	crotchet = c.110 (variable)
2.	performed on untuned percussion – castanets and bells	7.	score written by student composer
3.	difficult to determine cell repetition – (twice?)	8.	one take – each layer played at a different pulse
4.	playing time 21 secs	9.	CD for Appendix 9 Track 26
5.	pastiche		

## 53.14 (Phase Shifting Option B)

1.	composed by 4 students who wrote 53.13	6.	crotchet = c.110
2.	performed with metallophones and xylophone	7.	score written by student composer
3.	cell repetition difficult to determine	8.	one take – pulse unsteady with rhythmic inaccuracies
4.	playing time 42 secs	9.	CD for Appendix 9 Track 27
5.	development of instrumentation, simplification of construction; recycling of rhythmic material from 53.13		

## 53.15 (Phase Shifting Option A)

1.	composed by 4 female students	6.	crotchet = c.123
2.	performed on untuned percussion – maracas, sticks and bells	7.	score written by student composer
3.	cells repeated 3 times	8.	one take – three layers played – unsteady pulse
4.	playing time 30 secs	9.	CD for Appendix 9 Track 28
5.	pastiche		

## 53.16 (Phase Shifting Option B)

Handwritten musical score for '53.16 (Phase Shifting Option B)'. The score is written on four staves. Staff 1 is labeled 'Louise' and contains a melodic line of eighth notes. Staff 2 is labeled 'Margo' and contains a rhythmic pattern of eighth notes with some rests, and a pitch set 'c 100 c 0'. Staff 3 is labeled 'Angela' and contains a rhythmic pattern of eighth notes with some rests, and a pitch set 'c 44 c 0'. Staff 4 is labeled 'Penelope' and contains a rhythmic pattern of eighth notes with some rests, and a pitch set 'c 100 c 0'. Below the staves, the rhythmic pattern 'B A B G G B A B G G B A B G G B A B G G' is written.

1.	composed by 4 female students who wrote 53.14	6.	crotchet = c.100
2.	performed with metallophones, xylophone and woodblock	7.	score written by student composer
3.	each cell repeated twice	8.	one take – pulse steady with some rhythmic inaccuracies; instrumental layers entered one by one
4.	playing time 25 secs	9.	CD for Appendix 9 Track 29
5.	development of pitch set, time (ostinato as pulse) and instrumentation; development of construction through performance while score represents a simplification of the construction; recycling of rhythmic material from 53.15		

53.17 *Mumbo Jumbo* (Phase Shifting and Phase Shifting Option A)

Phase Shifting  
MUMBO JUMBO

Sally, Cath, Rachel  
Helen, Suzanne, Robyn

1.	composed by 6 female students	6.	crotchet = c.115
2.	performed on untuned percussion – castanets, drum, gong and maracas	7.	score written by student composer. Phase Shifting two layers at top of page, and Option A on lower part of page.
3.	each cell repeated twice	8.	one take – accurate performance of Option A
4.	playing time 20 secs	9.	CD for Appendix 9 Track 30
5.	pastiche		

53.18 *Settling Snow Flakes* (Phase Shifting Option B)

Phase Shifting - Tuned Percussion. *Sally, Cath, Rachel.  
Helen, Suzanne, Robyn.*  
~~Handwritten~~ "SETTLING SNOW FLAKES."

1.	composed by 6 female students who wrote 53.17	6.	crotchet = c.114
2.	performed with metallophones	7.	score written by student composer
3.	each cell repeated 4 times	8.	one take – accurate performance but without the pulse layer
4.	playing time 25 secs	9.	CD for Appendix 9 Track 31
5.	development of pitch set and instrumentation; recycling of rhythmic material from 53.17		

## 53.19 (Phase Shifting Option A)

*option A.*

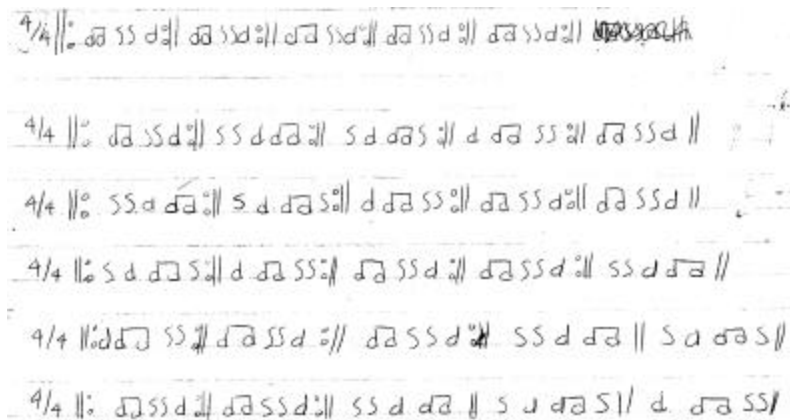
1.	composed by 4 female students	6.	crotchet = c.131
2.	performed on untuned percussion – drum, gong and cymbal	7.	score written by student composer
3.	each cell repeated twice	8.	one take – steady pulse, rhythmic inaccuracies
4.	playing time 20 secs	9.	CD for Appendix 9 Track 32
5.	pastiche		

## 53.20 (Phase Shifting Option B)

Option: B

1.	composed by 4 female students who wrote 53.19	6.	crotchet = c.130
2.	performed with metallophones and xylophone on the pulse layer	7.	score written by student composer
3.	each cell repeated twice	8.	one take – inaccurate but effective 'gamelan-like' performance due to doubling of some note values
4.	playing time 40 secs	9.	CD for Appendix 9 Track 33
5.	development of pitch set and instrumentation; development of construction through performance; recycling of rhythmic material in 53.19		

## 53.21 (Phase Shifting Option A)



1.	composed by 3 female students	6.	crotchet = c.83
2.	performed on untuned percussion – gong, castanets and woodblock	7.	score written by student composer
3.	cell repetition difficult to determine	8.	one take – unsteady pulse, only three layers played?
4.	playing time 35 secs	9.	CD for Appendix 9 Track 34
5.	pastiche		

## 53.22 (Phase Shifting Option B)

1.	composed by 3 female students who wrote 53.21	6.	crotchet = c.107
2.	performed with metallophones	7.	score written by student composer
3.	cell repetition difficult to determine	8.	one take – unsteady pulse
4.	playing time 40 secs	9.	CD for Appendix 9 Track 35
5.	development of pitch set and instrumentation; development of rhythm (tango in 5) through performance; recycling of rhythmic material from 53.21		

## 53.23 (Phase Shifting Option A)

OPTION A

repeat each measure 4 times

The image shows a handwritten musical score for five staves. Each staff contains a sequence of rhythmic patterns, primarily consisting of eighth and sixteenth notes. The score is divided into measures by vertical bar lines, and each measure is enclosed in a double bar line with repeat dots at the ends, indicating that each measure is to be repeated four times. The notation is consistent across all five staves, suggesting a unified rhythmic structure.

1.	composed by 4 female students	6.	crotchet = c.113
2.	performed on untuned percussion – drum, claves, sticks and maracas	7.	score written by student composer
3.	each cell repeated 4 times	8.	one take – steady pulse, rhythmic inaccuracies
4.	playing time 50 secs	9.	CD for Appendix 9 Track 36
5.	pastiche		

## 53.24 (Phase Shifting Option B)

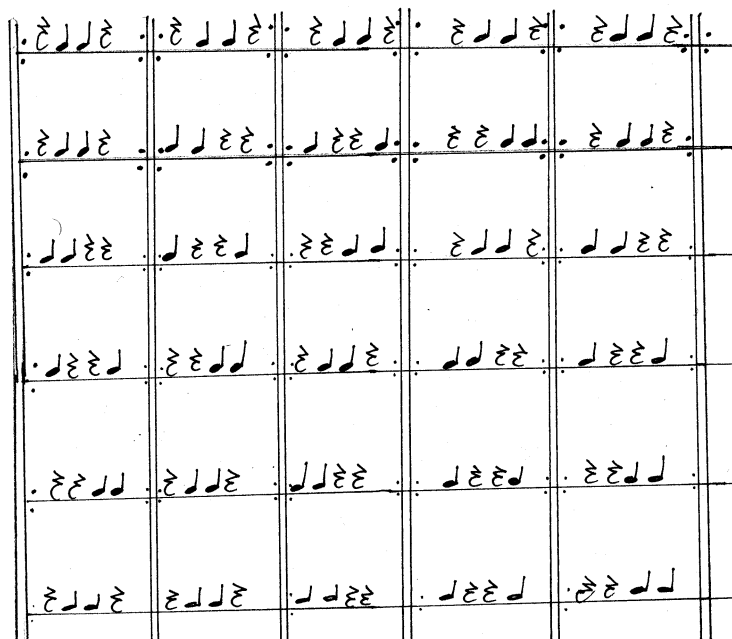
CDEGA

Karon, Angela, Lisa, Linda &amp; Wendy

The image shows a handwritten musical score for five staves, each representing a different performer: Karon, Angela, Lisa, Linda, and Wendy. The score is written in a single system with five staves. Above the staves, the pitch set 'CDEGA' is noted. The notation includes rhythmic patterns with various note values and rests. Below the staff for Linda, there is a sequence of notes: C, G, G, G, C, G, G, G, C, G, G, G, C, G, G, G, C, G, G, G, G. The score is divided into measures by vertical bar lines.

1.	composed by 4 female students who wrote 53.23	6.	crotchet = c.100
2.	performed with xylophones	7.	score written by student composer
3.	cell repetition difficult to determine	8.	one take – unsteady pulse and rhythmic inaccuracies
4.	playing time 50 secs	9.	CD for Appendix 9 Track 37
5.	development of pitch set and instrumentation; recycling of rhythmic material from 53.23		

## 53.25 (Phase Shifting Option A)



1.	composed by 4 students	6.	crotchet = c.110
2.	performed by clapping	7.	score written by student composer
3.	each cell repeated twice	8.	one take – steady pulse, some rhythmic inaccuracies
4.	playing time 21 secs	9.	CD for Appendix 9 Track 37
5.	pastiche		

## 53.26 (Phase Shifting Option B)

TUNED / PITCHED PULSE MUSIC

Margaret Wendy  
Margaret Donna

1.	composed by 4 female students who wrote 53.25	6.	crotchet = c.122
2.	performed with metallophones	7.	score written by student composer
3.	each cell repeated twice	8.	one take – attractive, accurate performance
4.	playing time 20 secs	9.	CD for Appendix 9 Track 39
5.	pastiche; recycling of rhythmic material from 53.25		

## 53.27 (Phase Shifting Option A)

Phase shifting

$\frac{4}{4}$   $\downarrow$  3  $\downarrow$   $\downarrow$   $\downarrow$

1.  $\frac{4}{4}$  |  $\downarrow$  3  $\downarrow$   $\downarrow$   $\downarrow$  |  $\downarrow$  3  $\downarrow$   $\downarrow$   $\downarrow$  |  $\downarrow$  3  $\downarrow$   $\downarrow$   $\downarrow$  |  $\downarrow$  3  $\downarrow$   $\downarrow$   $\downarrow$  |  $\downarrow$  3  $\downarrow$   $\downarrow$   $\downarrow$  |

2.  $\frac{4}{4}$  |  $\downarrow$  3  $\downarrow$   $\downarrow$   $\downarrow$  | 3  $\downarrow$   $\downarrow$   $\downarrow$   $\downarrow$  |  $\downarrow$   $\downarrow$   $\downarrow$  3 |  $\downarrow$   $\downarrow$  3  $\downarrow$   $\downarrow$  |  $\downarrow$  3  $\downarrow$   $\downarrow$   $\downarrow$  |

Option A.  
Untuned percussion  
Repeat each measure four times.

$\frac{4}{4}$

1. |  $\downarrow$  3  $\downarrow$   $\downarrow$   $\downarrow$  |  $\downarrow$  3  $\downarrow$   $\downarrow$   $\downarrow$  |  $\downarrow$  3  $\downarrow$   $\downarrow$   $\downarrow$  |  $\downarrow$  3  $\downarrow$   $\downarrow$   $\downarrow$  |  $\downarrow$  3  $\downarrow$   $\downarrow$   $\downarrow$  |

2. |  $\downarrow$  3  $\downarrow$   $\downarrow$   $\downarrow$  | 3  $\downarrow$   $\downarrow$   $\downarrow$   $\downarrow$  |  $\downarrow$   $\downarrow$   $\downarrow$  3 |  $\downarrow$   $\downarrow$  3  $\downarrow$   $\downarrow$  |  $\downarrow$  3  $\downarrow$   $\downarrow$   $\downarrow$  |

3. | 3  $\downarrow$   $\downarrow$   $\downarrow$   $\downarrow$  |  $\downarrow$   $\downarrow$   $\downarrow$  3 |  $\downarrow$   $\downarrow$  3  $\downarrow$   $\downarrow$  |  $\downarrow$  3  $\downarrow$   $\downarrow$   $\downarrow$  |  $\downarrow$  3  $\downarrow$   $\downarrow$   $\downarrow$  |

4. |  $\downarrow$   $\downarrow$   $\downarrow$  3 |  $\downarrow$   $\downarrow$  3  $\downarrow$   $\downarrow$  |  $\downarrow$  3  $\downarrow$   $\downarrow$   $\downarrow$  |  $\downarrow$  3  $\downarrow$   $\downarrow$   $\downarrow$  | 3  $\downarrow$   $\downarrow$   $\downarrow$   $\downarrow$  |

5. |  $\downarrow$   $\downarrow$  3  $\downarrow$   $\downarrow$  |  $\downarrow$  3  $\downarrow$   $\downarrow$   $\downarrow$  |  $\downarrow$  3  $\downarrow$   $\downarrow$   $\downarrow$  | 3  $\downarrow$   $\downarrow$   $\downarrow$   $\downarrow$  |  $\downarrow$   $\downarrow$   $\downarrow$  3 |

6. |  $\downarrow$  3  $\downarrow$   $\downarrow$   $\downarrow$  |  $\downarrow$  3  $\downarrow$   $\downarrow$   $\downarrow$  | 3  $\downarrow$   $\downarrow$   $\downarrow$   $\downarrow$  |  $\downarrow$   $\downarrow$   $\downarrow$  3 |  $\downarrow$   $\downarrow$  3  $\downarrow$   $\downarrow$  |

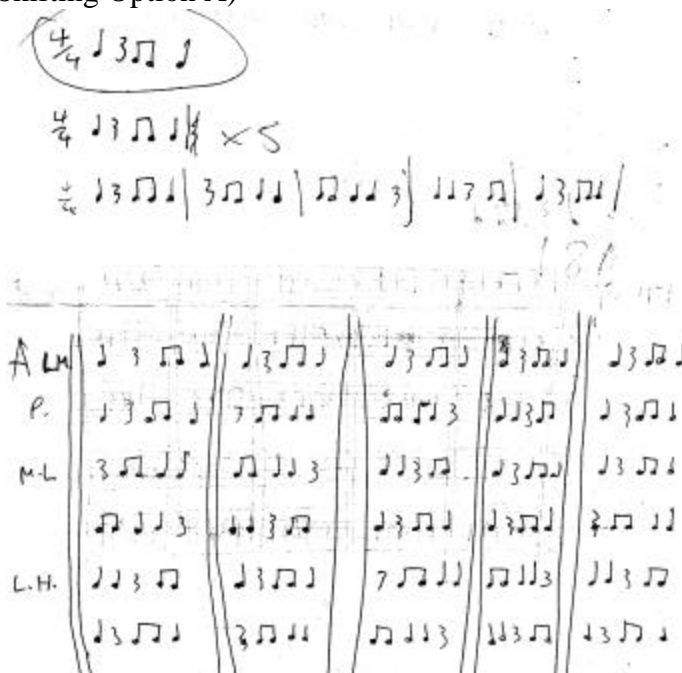
1.	composed by 2 female students	6.	crotchet = c.115
2.	performed on untuned percussion – castanets, maracas and sticks	7.	score written by student composer; two layered phase shifting at top of page and Option A in the lower half
3.	each cell repeated 4 times	8.	one take – steady pulse
4.	playing time 2 secs	9.	CD for Appendix 9 Track 40
5.	pastiche		

53.28 (Phase Shifting Option B)



1.	composed by 2 female students who wrote 53.27	6.	crotchet = c.100
2.	performed with metallophones	7.	score written by student composer
3.	cell repetition difficult to determine	8.	one take – steady pulse with rhythmic inaccuracies occurring late in the performance
4.	playing time 1 min 5 secs	9.	CD for Appendix 9 Track 41
5.	development of pitch and instrumentation; recycling of rhythmic material from 53.27		

53.29 (Phase Shifting Option A)



1.	composed by 3 female and 1 male students	4.	pastiche (same as 53.27)
2.	no instrumentation specified	5.	score written by student composer
3.	cell repetition unspecified		

## 53.30 (Phase Shifting Option B)



1.	composed by 3 female and 1 male students who wrote 53.29	4.	pastiche (very similar to 53.28)
2.	written for tuned instruments	5.	score written by student composer
3.	cell repetition unspecified		

## Teacher No. 73

**Teacher profile No. 73 : a male music teacher in a ‘disadvantaged’ secondary school in coastal New South Wales - (15 and) 18 year old age groups. See Appendix 8 for further information on education, preference, experience, the teaching environment and comments about the projects.**

**Identification**

**Teacher:** No. 73 – secondary music teacher in a public school classed as ‘disadvantaged’

**Gender:** male

**Study age group:** (15) 18

**School location:** Coastal New South Wales, Australia

**Study project(s):** Phase Shifting

**Study timing:** 1990

**Scores and transcriptions:** 73.7 and 73.8

**Recording(s):** CD 9 Tracks 42 and 43

**Education, preference, experience**

**Experience teaching twentieth century art music styles:** The senior (related course) year 11 and 12 classes in the compulsory topic “current survey” and the elective topic “20<sup>th</sup> Century Looking Back” can deal more specifically with 20<sup>th</sup> century works and composers. The works encountered in the ABC Meet the Music 6.30 series is a good resource that I have used.

Compositions associated with Teacher No. 73 written in response to projects from *The Pulse Music Album*

73.7 *Influence Me Bali*

Page 1

COPY 2. *Influence Me Bali* Page 1

14. YOUNG  
15. 2000-2001

Vocal One  
Vocal Two  
Vocal Three  
Vocal Four  
Vocal Five  
Vocal Six  
Vocal Seven  
Vocal Eight  
Vocal Nine  
Vocal Ten  
Wood block  
Castanet  
Guiro  
Conga  
Vibra Stab  
Tambora  
Ride Cymbal

Page 2

Vocals Section

V1  
V2  
V3  
V4  
V5  
V6  
V7  
V8  
V9  
V10  
Wood block  
Castanet  
Guiro  
Conga  
Vibra Stab  
Tambora  
Ride Cymbal

Page 3

Musical score for Page 3, measures 1-6. The score includes parts for Violin I (V1), Violin II (V2), Violin III (V3), Violin IV (V4), Violin V (V5), Violin VI (V6), Violin VII (V7), Violin VIII (V8), Violin IX (V9), Violin X (V10), Wood block, Castanet, Gurna, Conga, Vibra Slap, Colossio, and Ede. Cymbel. The score is written in a single system with multiple staves. The music features complex rhythmic patterns and melodic lines. The lyrics "O-La-La" are visible at the top of the first staff.

Page 4

Musical score for Page 4, measures 7-12. The score includes parts for Violin I (V1), Violin II (V2), Violin III (V3), Violin IV (V4), Violin V (V5), Violin VI (V6), Violin VII (V7), Violin VIII (V8), Violin IX (V9), Violin X (V10), Wood block, Castanet, Gurna, Conga, Vibra Slap, Colossio, and Ede. Cymbel. The score is written in a single system with multiple staves. The music continues with complex rhythmic patterns and melodic lines.

Page 5

Musical score for Page 5, measures 13-18. The score includes parts for Violin I (V1), Violin II (V2), Violin III (V3), Violin IV (V4), Violin V (V5), Violin VI (V6), Violin VII (V7), Violin VIII (V8), Violin IX (V9), Violin X (V10), Wood block, Castanet, Gurna, Conga, Vibra Slap, Colossio, and Ede. Cymbel. The score is written in a single system with multiple staves. The music concludes with complex rhythmic patterns and melodic lines.

1.	composed by student	6.	crotchet = c.113
2.	written for, and performed with chanted voices and untuned percussion	7.	score written by student composer
3.	repetition embedded into through-composed score	8.	one take – vigorous, accurate performance
4.	playing time 1 min 13 secs	9.	CD for Appendix 9 Track 42
5.	expansion of structure, construction and context		

73.8 Minimal Rhythms



Page 4

Musical score for Page 4, measures 1-8. The score consists of seven staves. The first four staves (treble clef) contain rests. The fifth staff (treble clef) contains a melodic line with eighth notes and triplets. The sixth staff (bass clef) contains a bass line with eighth notes. The seventh staff (bass clef) contains a bass line with eighth notes. A vertical bar line is present at the end of measure 8.

Page 5

Musical score for Page 5, measures 9-16. The score consists of seven staves. The first four staves (treble clef) contain rests. The fifth staff (treble clef) contains a melodic line with eighth notes and triplets. The sixth staff (bass clef) contains a bass line with eighth notes. The seventh staff (bass clef) contains a bass line with eighth notes. A vertical bar line is present at the end of measure 16.

Page 6

Musical score for Page 6, consisting of seven staves. The top three staves contain rests. The bottom four staves contain musical notation. The first staff of the bottom section has a fermata over a note. The second staff has a fermata over a note. The third staff has a fermata over a note. The fourth staff has a fermata over a note. The notation includes various note values, rests, and ornaments.

Page 7

Musical score for Page 7, consisting of seven staves. The top three staves contain rests. The bottom four staves contain musical notation. The first staff of the bottom section has a fermata over a note. The second staff has a fermata over a note. The third staff has a fermata over a note. The fourth staff has a fermata over a note. The notation includes various note values, rests, and ornaments.

Page 8



1.	composed by student	6.	crotchet = c.111
2.	performed on drums and metallophones	7.	score written by student composer
3.	repetition embedded into through-composed score	8.	one take – strong performance
4.	playing time 2 mins 25secs	9.	CD for Appendix 9 Track 43
5.	expansion of structure and construction		

### Teacher No. 100

**Profile of Teacher No. 100: female music teacher, country New South Wales, Australia, public high school – (12,15)18 year old student age groups. Information on education, preferences and experience, aspects of the teaching environment plus personal beliefs in, and teaching perspectives of, music education is located in Appendices 7 and 8.**

#### Identification

**Teacher:** No. 100 – music teacher

**Gender:** female

**Study age groups:** 12,15,18 years

**School location:** country town in New South Wales

#### Study project(s):

1. Phase Shifting (12, 15, 18 year age groups)
2. African rhythms (18 year age group)
3. Gamelan (18 year age group)

**Study timing:** May 1990

**Scores and transcriptions:** 100.7 – 100.11

**Recording(s):** CD 9 Tracks 44-49

<p><b>Teaching environment</b></p> <p><b>Class –</b></p> <p><b>Class age:</b> year 11 = 15/16 to 17 years; year 12 = 18 year age group. {Students at a number of class levels and ages worked with the minimalist projects. For the purposes of this study the year 7 level are discussed in the 12 year old age group, the year 8, 9,10 levels are discussed in the 15 year old age group, and the year 11 and 12 students and those who worked with them in the Gamelan and African Rhythms projects are discussed in the 18 year old age group}.</p> <p><b>Class size (and gender):</b> year 10 and 12 combined = 11 students; year 11 Elective = 5 boys, 3 girls;</p> <p><b>Class level:</b> year 9,10 and 12; year 11 Elective</p> <p><b>Class mix:</b> mixed ability – only 8 in the class.</p> <p><b>Music background of the class:</b> 2 unit course 1 group. 4 have been doing elective music since year 9. 3 have had no music other than core (cultural as it is called here) in year 7 and 8. One did year 10 elective. All can either play an instrument or sing for performances. Only average or below average in performance standard with exception of perhaps 2.</p> <p>Not a very mature group particularly the boys. This is the most highly-strung group I have taught (tho' I've only had 3 Year 11 classes). They are however, very nice kids and love to do practical work and avoid written work. Term 2 towards the end – they have settled down a great deal.</p> <p><b>Number of music lessons for project class per week:</b> 6 x c36 minutes.</p>
<p><b>Personal beliefs in, and teaching perspectives of, music education</b></p> <p><b>Teaching approach -</b> Year 9,10,11,12 Elective only. We cover the elements of music in more detail – mostly in a practical or aural way. In all areas of elective music and in the topic choices – there are practical workshops/composition activities, listening available for classroom activities.</p> <p><b>Pitch terminology and systems:</b> I use a combination depending on the group e.g. year 10, 11, 12 would (should) know sol- fa and French time names.</p> <p><b>Harmonic terminology and systems:</b> Harmony work usually based on chords and triads. NB 2 Unit Course 1 does not have a great deal of 'theory' based work – the emphasis is on performance.</p>
<p><b>Approach and strategies adopted to introduce material from <i>The Pulse Music Album</i></b></p> <p><b>Project name:</b> African Rhythms and Gamelan – 15/18 year old age group (years 9/10 – 12 combined – 11 students). Class size of year 12 only 3 so combining allows performances of bigger workshops.</p> <p><b>Number of lessons:</b> 4 – two double lessons. Year 10 is not my class – I had to borrow them for the project. Chosen only some year 9/10 for this performance (Gamelan) – the rest will 'swap in' for the African project. Begun on 28 May 1990.</p> <p><b>Familiarity of material:</b> The workshops were similar in format to some Balinese work which I have done in the past based on works by a Graftonian Doug Myers who used Balinese music as part of this major thesis. However it was not set out in this way and I put it together after seeing it. It wasn't notated as a workshop as such. Gamelan chosen for year 12 who have been studying Australian contemporary music and the influences of</p>

Indonesia on composers such as Sculthorpe.

**Objectives:** Year 12 consists of only 3 girls so when doing group work and workshops it is necessary to combine if possible. All year 12 have studied Australian music and in particular Sculthorpe and have discussed the influences on his music. This is why the Gamelan workshop was helpful. One year 12 student also has chosen African music as an HSC topic so the African workshop slotted well into her performance repertoire.

**Music skills/activities:** Year 12 also improvised on African style ostinatos and listened to some more African music. They also composed in this style. As part of their study of Australian music, they wrote in pentatonic – on ostinatos – using unusual notation techniques etc. Students used two beaters. Sing (shout) while also playing took lots of concentration by the students.

**Technology – recordings of minimalist music:** They thought the prerecorded work was just a “mass of noise”. Year 12 were more favourable about it as they have had more exposure.

**Composing activities –**

**Discussion of structure/form:** We discussed the use of ostinato in both types of music. The way a simple melody can be changed into a full composition with simple harmonies. We discussed the way to notate rhythm and voice (African Rhythms).

**Composition pieces/exercises from *The Pulse Music Album* projects:** from the album.

**Composition – the process:** (see performance process)

**Performance –**

**Performing from notation, by ear, by memory:** The students played from notation and then memorised this notation.

**Improvisation:** Students were able to add ‘bits and pieces’ when we were learning to see how they sounded.

**Conducting:** I conducted and when necessary brought each group in. Only 11 in group so a need for everyone to play. I also conducted with a tambour to keep the pulse and add some ‘oomph’ to the playing – they were very quiet to begin with.

**Pulse:** Tambour on crotchet beat – single main beat.

**Performance process:**

Gamelan: taping of *Lagu Perang* from the project. 2 glocks (alto) introduction only.

Ending trill (roll) added.

Second taping – change xylophone to quavers, and all metallophones to crotchets.

Tape 2 – ran out of time. Able to retape it eventually.

African: Composition 100.7 – first parts added one by one. Agogo – part 1, various other

parts, bongos on 

All improvised on ostinato. Lost the rhythm occasionally.

Groups played then swapped.

Composition 100.8 – Call and Response. Each student playing own part (or improvising). Small group work. One of the year 12 students is presenting African Music for HSC so this was a good workshop for her in particular.

**Appraisal, evaluation –**

**Recording student work:** They enjoyed listening to themselves – they could hear the mistakes etc.; we retaped the pieces after they had heard them.

**Response to the minimalist project – students:** The students enjoyed the workshops tho' they were fairly inhibited. I did imagine they would enjoy the project tho' some said it was 'embarrassing' to call out etc.

**Response to the minimalist project – teacher:** I like set workshops – the students can see what to do – can work independently and then combine for a finished product. Well set-out workshops is what we need in music departments where we can combine all of the learning skills etc. and students can enjoy.

I found these two workshops much more enjoyable to teach. The students also enjoyed them.

**Project name:** Phase Shifting – 18 year old age group (Year 11 aged 16-17)

**Number of lessons:** 3. Begun on 29 May, 1990.

**Familiarity of material:** Pentatonic work, ostinato, improvisation.

**Objectives:** Formal structure and Element: To show students the way a simple 'motif' could be used as the basic structure for a full piece. They did realize this and enjoyed writing their own short 'motifs' although some found their melodies a bit difficult to play.

**Music skills/activities:** Use of crossed xylophone sticks. They found this difficult in itself.

**Collaboration/integration:** Some students do art so we discussed minimalistic art also and saw some examples.

**Technology – recordings of minimalist music:** Listened to Reich and Glass – talked about minimalistic music. The students didn't like the Reich excerpt after the first part (too much the same, they said – no variety).

**Composing activities –**

**Sound and symbol:** Traditional notation.

**Discussion of structure/form:** Yes. See objectives and improvisation.

**Composition pieces/exercises from *The Pulse Music Album* projects:** *Wind Chimes Compositions – original:* All by class (students).

**Student input:** All parts written by students. Time signatures agree upon, notes to be used etc. and dynamics done on board for class.

**Composing as an incentive to the students' music learning:** Year 11 quite happy to play the various layers during the first lesson.

**Student composition titles:** Didn't think of it.

**Performance –**

**Performing from notation, by ear, by memory:** From notation – tradition rhythm and

pitch – first rhythm measure 

(very basic)

**Improvisation:** Improvised 1 bar melodies based on pentatonic scale to begin with, each one playing one melody then the next taking on an improvisation without losing the beat.

**Conducting:** Conducted to help various layers keep their place.

**Pulse:** When used, we used a slower pulse. The children found this less obtrusive than a faster beat.

**Appraisal, evaluation –**

**Recording student work:** The students enjoyed hearing the work and talked about their use of instruments etc. and the balance of parts.

**Response to the minimalist project – students:** They were surprised that one simple motif could be used for such a long time. This really fascinated them at the time.

**Response to the minimalist project – teacher:** I enjoyed this class work as the students love to compose and/or play at anytime.

**Teacher's response to working with material from *The Pulse Music Album***

**How the project(s) fitted into the music programme:** I found the workshops (African and Indonesian) slotted in well. I made a 'space' for most of the others.

**The album of projects –**

**The projects as a sequential programme:** The projects could work as a sequential programme just as long as it wasn't too drawn out. The attention span in the classroom at all levels needs to be focused on an activity which takes a lot of thought and concentration.

**Teacher's response to minimalist project material:** The two projects Gamelan and African Rhythms were set out well – the other pulse work is not as straightforward to read and understand as one might think. I believe because of this, a non-trained music teacher could have lots of trouble understanding parts of it.

**Students' response to minimalist project material:** The students' responses were positive in most cases – the only criticism is the continuation of the idea which sometimes lost their interest.

**Compositions associated with Teacher No. 100 written in response to the Phase Shifting project**

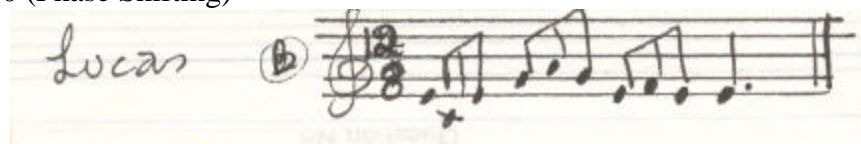
100.8a (Phase Shifting)



1.	composed by student	6.	crotchet = c.112
2.	performed on metallophones	7.	score written by teacher
3.	each cell repeated 3 times	8.	one take – vigorous, accurate performance
4.	playing time 20 secs	9.	CD for Appendix 9 Track 45
5.	development of metre		

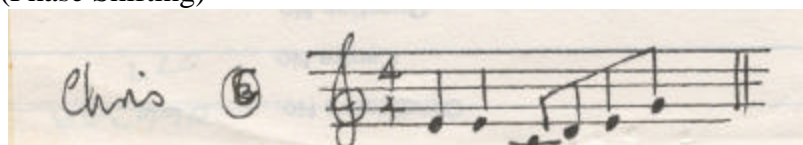


## 100.10 (Phase Shifting)



1.	composed by male student	6.	dotted crotchet = c.75
2.	performed on metallophones	7.	score written by teacher
3.	each cell repeated twice	8.	one take – occasional rhythmic inaccuracies
4.	playing time 30 secs	9.	CD for Appendix 9 Track 48
5.	pastiche		

## 100.11 (Phase Shifting)



1.	composed by student	6.	crotchet = c.130
2.	performed on metallophones	7.	score written by teacher
3.	each cell repeated twice	8.	one take – vigorous, accurate performance
4.	playing time 20 secs	9.	CD for Appendix 9 Track 49
5.	development of metre		

## Teacher No. 152

**Teacher profile No. 152: a female music teacher in a public secondary school in the Newcastle district, New South Wales - 18 year old age group**
**Identification****Teacher:** No. 152 – music teacher in a public secondary school**Gender:** female**Study age group:** 18 years**School location:** Newcastle, New South Wales**Study project(s):** Phase Shifting, Phase Shifting Melodies**Study timing:** November-December 1991**Recording(s):** 9 student compositions**Qualifications:** (tertiary music/education)**Scores and transcriptions:** 152.1 – 152.9**Recording(s):** CD 9 Tracks 50 and 51**Teaching approach****Number of lessons:** 3

21.11. 1991: Introduced Pulse Music to my Year 11 – 2 Course 1 class. There are 22 students in the class – a mixed group with limited musical knowledge. All students,

however, have a love of music and a desire to attempt new things.

I commenced the lesson by playing Steve Reich's *Six Pianos* and the students discussed the music. They observed repetitive rhythms, constant pulse, dynamic change, shifting dominance, repetitive melodic motif that gradually and simply changed.

A discussion of Pulse Music, Minimalism, ensured – related to minimalist art. Explanation of Phase Shifting rhythm. Class formed groups and based on the example *I think it's going to rain*, composed their own piece of music. Have recorded these examples. Some are OK. Some are really bad!! (only two examples recorded. Sorry – kids absent etc.)

2.12.91: Phase Shifting Melodies introduced.

6.12.91: Compositions. Students in pairs composed own phase shifting melodies. Example *Lazy, Lazy Boat* given. I have included their compositions for you to look at. They are not good but I think the students thought they could sound bad and approached the task as a purely mathematical one. I will be evaluating these in 1992 and will try again.

After the initial phase shifting composition task the students evaluated what they had heard and done. I have included these.

The students enjoy composing but aren't taking the work terribly seriously. I, perhaps, should not have tried to introduce it so late in the year – Yr 11 aren't taking anything much seriously at the moment. I hope for better results in 1992 when they are 'committed'?? Yr 12 students.

I would also like to introduce Canon, African Rhythms and Gamelan early 1992. I will keep you informed. Thanks for the opportunity to use your work.

Student comments:

- The exercise gave me a better understanding of the way in which different rhythms can meld in together. I found it difficult to keep my own particular rhythm going. I felt that it sounded pretty disgusting and was not a nice melodic line.
- A new way to make interesting rhythm patterns.
- I was very interesting the way it turned out in the end but the phase shifting is very complicated. It was rather confusing and I couldn't stand to listen to it for a long period of time. It was an experience but rather boring. The composition was rather easy but the performance was challenging. Confusing. The rhythmic phase shifting was hard.
- I found this kind of music too repetitive and this made it irritating. Although this music is new I don't think I would ever like it.
- I learnt how to play an instrument and keep in time. I liked it but I wouldn't start it up. It thought it was too repetitive. It was a new experience of music for me

but I wouldn't listen to it.

- This kind of music is a lot different to any I've listened to before. I thought it was an interesting experience, it's a technique I'd like to remember when I next have to write a piece of music. Phase Shifting was a lot harder than it looked on paper.
- It was surprising how a melody of four notes after phase shifting could turn out so complex. The end sound was quite interesting and the exercise tested our ability to clap rhythms. Overall I thought it was a positive activity.
- Mathematical and intellectual rather than musical but surprising that a complex piece of music could be made out of a simple rhythm and melody. The sound produced was annoying.
- There were 4 in the group and the only troubles were working out the music and playing in time with each other. Not being able to get it right because it was quite difficult to keep in time as we were phase changing. Although only 3 notes were used the piece of music did not sound as bad as I thought it would. This was because of each phase change. Being able to work along with others in the class to get the piece of music to work out wasn't so bad either. All in all I thought it was a good practical lesson.
- The music was interestingly produced, although it was hard to listen to without losing interest. It was also hard to keep in time when playing the composition. Even though I was playing the melody, which didn't change, I became confused as the 'phase shifted' melody was being played on the same instrument. I thought the exercise was worthwhile, as I'd never heard that type of music before and it was good to see how different styles of music are produced.
- I found this interesting as far as rhythm goes. Overall I found the exercise boring due to the repetition of the rhythmic pattern. In part I found it was hard to keep in time as you lose concentration as the piece starts to get boring because of the repetition of the piece.

### Compositions associated with Teacher No. 152 written in response to the Phase Shifting project

#### 152.1 (Phase Shifting)

The musical score for 152.1 (Phase Shifting) consists of two staves. The top staff is for a percussion instrument, indicated by the 'sticks' label. It features a complex rhythmic pattern of eighth notes, with a '1' above the first measure and 'x 4' above the first four measures. The bottom staff is for metallophones, indicated by the 'metallophones' label. It features a simple melody of four notes, with a '1' above the first measure. The score is divided into two main sections by a double bar line. The first section has a 'x 12' multiplier above it, indicating 12 repetitions of the rhythmic pattern. The second section has a 'x 12' multiplier above it, indicating 12 repetitions of the metallophone melody.

1.	composed by student	6.	crotchet = c.96
2.	performed on metallophones and sticks	7.	score transcribed by researcher
3.	cell repetition difficult to determine	8.	one take – inaccurate performance which sounded as if both layers were rotating
4.	playing time 1 min 4secs	9.	CD for Appendix 9 Track 50
5.	development of instrumentation; possible expansion of construction through performance		

## 152.2 (Phase Shifting)

The musical score for '152.2 (Phase Shifting)' is presented in two staves. The top staff, marked 'piano' and 'x4', shows a melodic line with a sequence of notes and rests, repeated four times. The bottom staff, marked 'metallophone' and 'sticks', shows a rhythmic pattern of notes and rests, also repeated four times. The sticks part is written as a sequence of vertical lines with dots, representing rhythmic pulses. The score is in 4/4 time and features a complex rhythmic pattern with phase shifting.

1.	composed by student	6.	crotchet = c.96
2.	performed on piano, metallophone and sticks	7.	score transcribed by researcher
3.	each cell repeated 4 times	8.	one take – unsteady pulse and inaccurate rhythmic playing
4.	playing time 52 secs	9.	CD for Appendix 9 Track 51
5.	development of metre		

## Compositions associated with Teacher 152 written in response to the Phase Shifting Melodies project

### 152.3 Nicole's Excellent Composition (Phase Shifting Melodies)

Excellent composition

Centre No. \_\_\_\_\_  
Question No. \_\_\_\_\_

Written in one period

1.	composed by female student	4.	development of pitch
2.	no instrumentation specified – probably piano	5.	score begun in student's hand and completed by teacher
3.	5 bar phrase repeated 4 times; 4 bar phrase repeated 5 times		

## 152. 4 (Phase Shifting Melodies)

1.	composed by male student	4.	development of rhythmic concept (retrograde)
2.	no instrumentation specified – probably piano	5.	score written by student
3.	5 bar phrase repeated 4 times; 4 bar phrase repeated 5 times		

## 152.5 (Phase Shifting Melodies)

The image shows a handwritten musical score for a piece titled '152.5 (Phase Shifting Melodies)'. The score is written on four systems of two staves each. The first three systems are in 2/4 time, and the fourth system is in 7/8 time. The melody in the upper staff of each system consists of quarter notes, and the bass line in the lower staff consists of half notes. The piece is characterized by phase-shifting melodies, where the two parts move in parallel motion but are out of phase with each other.

1.	composed by 2 female students	4.	development of pitch
2.	no instrumentation specified – probably piano	5.	score begun in student's hand and completed by teacher
3.	5 bar phrase repeated 4 times; 4 bar phrase repeated 5 times		

## 152.6 (Phase Shifting Melodies)

Emma

Candidate's No. \_\_\_\_\_  
Centre No. \_\_\_\_\_  
Question No. \_\_\_\_\_

The image shows a handwritten musical score for a piece titled 'Emma'. The score is written on six systems of two staves each. The notation includes treble and bass clefs, a key signature of one sharp (F#), and a common time signature (C). The music consists of a series of chords and melodic lines, with some notes marked with '+' signs. The score is presented in a clear, legible hand.

1.	composed by female student	4.	development of pitch (chromaticism) and metre
2.	no instrumentation specified – probably piano	5.	score written by student
3.	5 bar phrase repeated 4 times; 4 bar phrase repeated 5 times		

## 152.7 (Phase Shifting Melodies)

The image shows a handwritten musical score on ten staves. The score is organized into five systems, each containing two staves. The notation includes various rhythmic values such as eighth and sixteenth notes, and rests. The piece is characterized by phase-shifting melodies, where different melodic lines enter at different points in time, creating a complex, layered texture. The handwriting is clear and legible.

1.	composed by 2 male students	4.	development of pitch, rhythm and metre
2.	no instrumentation specified – probably piano	5.	score begun in student's hand and completed by teacher
3.	5 bar phrase repeated 4 times; 4 bar phrase repeated 5 times		

## 152.8 (Phase Shifting Melodies)

1.	composed by female student	4.	development of pitch and metre
2.	no instrumentation specified – probably piano	5.	score begun in student's hand and completed by teacher
3.	5 bar phrase repeated 4 times; 4 bar phrase repeated 5 times		

## 152.9 (Phase Shifting Melodies)

1.	composed by student	4.	development of pitch
2.	no instrumentation specified – probably piano	5.	score written by student
3.	5 bar phrase and 4 bar phrase – repetitions not specified		

## Compositions associated with Teacher No. 123 written in response to the Gamelan project

### 123.1 (Gamelan) Page 1

*Darten*  
*Tempo - ♩ = 60*  
*f = 2109*

### Page 2

1.	composed by male student	4.	simplification of interlocking drum rhythm patterns
2.	written for Malay gamelan instruments	5.	score written by student
3.	introduction, repeated two-bar middle section and two-bar ending		

## 123.2 (Gamelan)

Page 1

Page 2

1.	composed by female student	4.	pastiche
2.	written for unspecified instruments	5.	score written by student
3.	introduction, repeated two-bar middle section and two-bar ending		

123.3

Page 1

Page 2

Led by the Piano + Xylophone.

Part One - Metallophone  
 Part Two - Metallophone  
 Part Three - Xylophone  
 Part Four - Xylophone  
 Part Five - Piano  
 Part Six - Gong  
 Part Seven - Drums

1.	composed by female student	4.	development of pitch
2.	written for metallophones, xylophones, piano, gongs and drums	5.	score written by student
3.	introduction, repeated two bar middle section and two-bar ending		

## Compositions associated with Teacher No. 149 written in response to the Gamelan project

149.1 (Gamelan)

Page 1

Handwritten musical score for a Gamelan composition, consisting of two systems of staves. The first system includes:

- Claves
- High Glockenspiel
- Medium Glockenspiel
- Low Glockenspiel
- Bongos
- Low synthesizer

The second system continues the notation for the same instruments. The score is written in a 4/4 time signature and features a variety of rhythmic patterns and melodic lines. The notation is handwritten and includes dynamic markings such as *mf* and *f*. The piece concludes with a final measure marked with a double bar line and a fermata.

Page 2

The image shows two systems of handwritten musical notation. Each system consists of five staves. The first system has a common time signature 'C' and the second system has a 2/4 time signature. The notation includes treble and bass clefs, various note values, and rests. The score is written in ink on a white background.

1.	composed by male student	4.	expansion of structure
2.	written for metallophones, bongos and synthesizer	5.	score copied by teacher
3.	antecedent/consequent 8-bar phrasing, repeated; no introduction and ending		

## 149.2 (Gamelan)

1.	composed by male student	4.	development of structure, time and instrumentation (synthesizer)
2.	written for glockenspiels, synthesizer and two unspecified instruments	5.	score copied by teacher
3.	no introduction and ending section		

**Table 9.1 Commonalities and differences between the three expanders**

Education, preferences, experience:
<ul style="list-style-type: none"> <li>• all were musically qualified;</li> <li>• all were teachers with over 13 years experience;</li> <li>• all were specialist music teachers;</li> <li>• all expanders and listed eclectic music preferences;</li> <li>• all noted a preference for twentieth century art music;</li> <li>• all noted composition and arranging as personal activities;</li> <li>• all teachers were familiar with minimalism;</li> <li>• all had previous experience teaching twentieth century art music;</li> <li>• all had previous experience teaching the music of Indonesia and Africa.</li> </ul>

## Teaching environment:

- one worked with students drawn from the working-class while two worked with students drawn from varied socio-economic groups;
- all taught in public education institutions;
- all taught in institutions with a medium to strong interest in music;
- all teachers worked with students who had chosen to study music;
- all worked with students with a musical background which was medium to strong;
- all teachers worked in reasonably to well-resourced school environments.

## Teaching perspective:

- all placed an emphasis on empowerment and an holistic approach to music in their music philosophies;
- all favoured flexibility and creativity in their personal curriculum ranking.

## Approaches and strategies:

- all predicted that some of the project material would fit into their current music programme;
- two worked with the first project, Phase Shifting;
- all aimed to focus students on organising sound through composition and performance;
- all noted common ground with previous knowledge – minimalism and Balinese music;
- all adopted a strategy sequence which included performing one of the projects compositions as a model, discussion, composition based on a model, performance, recording, evaluation;
- two played prerecorded excerpts of minimalist music;
- all contextualised composing activities by making them relevant to contemporary society e.g. titles, cultural discussion, concerts;
- two offered students multi-focused or multi-model composition task designs and one a single-focused model;
- all discussed aspects of structure;
- one teacher (the researcher) noted that she had worked with the material prior to introducing it to students;
- all worked with the project material for 5-10 lessons although one taught two different classes over the time period;
- one gave students composing tasks for homework;
- all engaged the students in composing as individuals, two also using class composition;
- two recycled material from one composition to another;
- students of two teachers adopted titles;
- one composed (the researcher) with the students;
- all improvised;
- all teachers encouraged the use of metallophones and vocalized chanting as sound sources;
- two controlled the pulse by incorporating it into the music;

- two noted that the students played by ear and/or memory plus notation;
- all submitted strong, accurate recordings of performances of over half of the compositions submitted;
- two teachers valued recording performance and compositions for self-reflection and evaluation;
- all teachers selected and adapted learning tasks according to the students' different developmental levels and the students' reasoning was sought within these tasks;
- all teachers adopted a student-centred approach;
- I interpreted the roles adopted by all the teachers to be enablers who allowed and encouraged the students to explore as they composed;
- two teachers worked as teacher as composer.

#### Outcomes:

- all teachers submitted compositions which expanded aspects of structure and construction in relation to the project models;
- all teachers submitted compositions which developed several musical parameters;
- two teachers were able to empower students to take their work with the projects outside the classroom society into the wider community i.e. HSC composition, practical primary teaching;
- two teachers were able to draw on their previous knowledge of minimalism and/or Indonesian music to combine compositional techniques and processes from a number of projects resulting in student compositions which expanded ideas introduced in the project models;
- two found *The Pulse Music Album* projects accessible and one criticized them;
- all teachers were positive about their engagement with the projects;
- students of all teachers were positive about their engagement with the projects with reservations;
- all expressed an interest in using the material again in the future;

**Table 9.2 Commonalities and differences between the two developers**

Education, preferences and experience;
<ul style="list-style-type: none"> <li>• both were musically qualified;</li> <li>• one listed eclectic musical preferences and one did not address the question;</li> <li>• one noted a preference for twentieth century art music;</li> <li>• one noted composing and arranging as personal activities;</li> <li>• one had previously introduced students to music from a non-Western culture.</li> </ul>
Teaching environment:
<ul style="list-style-type: none"> <li>• both were situated outside a large city;</li> <li>• one worked with students drawn from rural and middle socio-economic groups;</li> <li>• both worked in public education institutions;</li> </ul>

- both worked with students of mixed musical ability whose previous experience ranged from limited to reasonable;
- one noted that music resources were reasonable.

#### Teaching perspective:

- one outlined an empowering, holistic music philosophy while the other did not address the question;
- neither ranked music activities.

#### Approaches and strategies:

- one predicted that the project material would fit into the music programme;
- both engaged students with the first project in the album, Phase Shifting;
- one focused aims on notation skills;
- both adopted a strategy sequence which included performing one of the project compositions as model, discussion, composition based on a model, performance, recording;
- both played prerecorded minimalist excerpts;
- both referred to the relevance of minimal music as a contemporary music;
- both adopted a prescriptive task design, model;
- both discussed aspects of structure;
- both noted that time spent with the material, two to four lessons, was too short;
- one noted that students took three to four weeks to compose and one noted a lesson;
- both engaged their students with group composition which resulted in student interaction with others in the classroom;
- both recycled;
- neither noted titles being important for student composition;
- one integrated the project material with aspects of minimalist art;
- one engaged students with improvisation;
- both offered students keyed percussion e.g. metallophones, to play and compose for;
- both submitted recordings of compositions with many performance inaccuracies which suggested ideas for compositional development and expansion;
- both found phase shifting difficult to play;
- one found recording students compositions valuable for a holistic view;
- both were student-centred in their approach;
- both adopted the role of teacher as student.

#### Outcomes:

- both teachers submitted compositions which developed aspects of the project material, predominantly instrumentation and pitch;
- both empowered their students to see the potential of the material for themselves;
- one was positive about *The Pulse Music Album*;
- both were positive about their engagement with the material;

- the students of both teachers gave mixed responses to their work with the projects;
- both teachers expressed interest in using the material again in the future.