

Appendix 6

Appendix for Chapter Six 9 year age group

Teacher No. 5

Profile of Teacher No. 5: a female primary music consultant working with a male class teacher in Hong Kong - 9 year old student age group
Identification
<p>Teacher: Music consultant specialist [with class teacher whose information and comments are in square brackets].</p> <p>Gender: female [male]</p> <p>Study age group: 9 years – primary</p> <p>School location: Hong Kong</p> <p>Study project(s):</p> <ol style="list-style-type: none"> 1. Phase Shifting, 2. African Rhythms <p>Study timing: February 1989, and May to June 1990 – over a period of a year and a half.</p> <p>Scores and transcriptions: 5.1 – 5.7</p> <p>Recording(s): CD 6 Tracks 1 – 7</p>
Education, preference, experience
<p>Qualifications: B.Mus.Ed. [B.Sc. (hons) Combined Science; PGCE – Science]</p> <p>Preferences (experience) –</p> <p>Music Activities:</p> <ul style="list-style-type: none"> Play (a bit) Sing Write/arrange Dance Listen to music Read books on music TV programmes <p>Years of teaching experience: 12 [6]</p> <p>Years of teaching in this school and ages taught: 9 years. Students aged 5 – 12 years. [2 years. Students 9 years.]</p> <p>Years of experience teaching the age group of the study: 9. [2]</p> <p>Experience teaching twentieth century art music styles: hardly ever – Stravinsky's <i>Firebird</i> for stories, for example</p>
Teaching environment
<p>School -</p> <p>School situation: Hong Kong (British System)</p> <p>Public or private: Private – Government aided – fee paying.</p> <p>How long has the school been open: since early 1960s.</p>

Level: primary

Number of students: 700

Socio-economic background of parents: Varied; multi-racial. [Expatriate and local families. Children must have a level of proficiency in spoken and written English before they are accepted. Vast majority of parents are from a professional/managerial background. Many nationalities represented – Chinese, Philippino, Malay, Korean, Japanese, British, New Zealand, Australian, Indian, Pakistani, Singaporean, Canadian and more.]

General information about the school: Music has been “put in it’s place” in the curriculum. Had “too high a profile” before. Teachers have a far broader-based curriculum than before and are pressurized to perform well in all of them. Many teachers have to change their approach in language and maths teaching so that whole school has a unified approach.

School’s interest in music: Strong when it comes to performance. Choir, orchestra, recorder groups, guitar, provision for private lessons (flute, piano, clarinet, saxophone, violin, cello, trumpet) offered as extra-mural music activities. Weak otherwise (apart from a few exceptional teachers). Direction from on top rather negative. Strong but without the commitment of previous years. Probable reason: vast changes resulting in high stress levels, less time to invest in music. [Strong – full time non-class based music co-ordinator, with a high degree of interest shown by children in school choirs and orchestra. However, some staff do feel a lack of confidence in this area.]

Venue for music lessons: hall, Performing Arts Room, classrooms. The hall and Performing Arts Room is hardly ever available therefore teaching nearly always in classrooms.

Music equipment: One large store cupboard which is sufficient if the teaching is within that area. As music is now a class-based activity, there are nowhere near enough instruments to go around. Not enough time. Some enthusiastic classroom teachers plus the music specialist herself.

Tuned and untuned percussion, electronic keyboards, guitars, cassette player.

[Space is the major problem. We usually have access to a cassette recorder and we are adequately resourced with respect to musical instruments but could always do with increasing the number and variety of these. At the moment they have to be centrally located as we have insufficient numbers for a pack for each class unit.]

Curriculum: school curriculum. United Kingdom National Curriculum coming in this year (in United Kingdom) and English schools in Hong Kong seem to be following others as far as possible, apart from testing.

Curriculum ranking of music activities: (for this age group)

1 improvisation/composition/arranging, 2 recorder/instrument playing, 3 movement, 4 notation skills, 5 singing, 6 listening, 7 music in society/in the community, 8 music history/musicology, 9 aural training although not enough.

Class -

Class age: Students aged 9 – 10 years with average age of 9 years and 8 months.

Gender of class: 17 male and 13 female plus 14 boys and 16 girls in another year 5 class.

Class level: year 5

Class mix: mixed ability. Open plan with a co-operative teaching set up.

Music background of the class: Children used to recognizing, moving to and writing own beat, rhythm, melody (in some cases harmony).

Creative projects have covered creating background music to a made-up story (usually concerned with the current class topic), taping, assessing etc. performing, retaping then moving to taped music (using either pure movement or drama). Written versions of this music use shapes relevant to each sound with notes if necessary e.g. loud, quite short/humming softly pitch follows shape.

All year 3s and 4s learn recorder in ability groups. Some negative experiences as not all children want to apply the concentration, time and effort needed to improve on the recorder.

Having been under some undue stress during these impressionable years and not being in a position to alter the recorder learning situation, I could well have confirmed their negative feelings on the subject also unable to provide a platform for them.

Lessons often cancelled for recorder groups taken on Fridays as this day was used for all 'events' (e.g. sports, galas, trips, etc.).

[Classroom teacher: 1. Specialist music input from co-ordinator; 2. Followed the *Upbeat* (Leask 1983/86) scheme on a once per week basis; 3. Music introduced into integrated class topic activities e.g. composition of a musical accompaniment for "a journey on a river" in connection with our class topic – Rivers and Lakes; 4. Opportunity for the children to join school choir, orchestra and extra curricular instrumental clubs.]

Number of music lessons for project class per week: one

Length of lesson: 30-40 minutes

Personal beliefs in, and teaching perspectives of, music education

Teaching philosophy:

Interest kids in the subject.

Provide wide variety of musical activities.

Reach for excellence, stretch.

Perform as much as possible (to me if shy, to class, to year group, to school, to parents, outside of the school).

Create situations in which kids can succeed.

Educational aims: The teacher's role, as I see it, is to provide constant stimuli; and reasons for continuing e.g. performing, composing, learning to evaluate, feel the excitement and confidence in self for achieving these aims).

My role is to teach teachers. I try to work from their strengths (therefore different for each class let alone year group). It's all a bit of a roller-coaster still though settling down pretty well. Will take a few more years.

Personal ranking of music activities: same as those given for the curriculum: (for this age group) 1 improvisation/composition/arranging, 2 recorder/instrument playing, 3 movement, 4 notation skills, 5 singing, 6 listening, 7 music in society/in the community, 8 music history/musicology, 9 aural training although not enough.

Teaching method: Old and ideal method.

Pitch terminology and systems: A to G with A=Alfie Ant etc. All insect names.

Excellent! Really works! Wouldn't have believed it.

Some sol- fa.

Harmonic terminology and systems: Pentatonic or rounds.

Rhythmic terminology and systems: ta te,te; slow, quick, quick; walk, run, run. American and English names are referred to.

Evaluation and assessment: by choice although not in every aspect all the time. I see each piece of work and discuss, comment, assist.

Preliminary opinion of The Pulse Music Album project material: Perfect timing – classes were using pentatonic scales to compose melodies (rhythms depended first on words from topic, later used on their own), then harmony by friends, working their compositions together..

We'd taken a break from this to play composed music – instrumental lessons i.e. with 18 different parts, each child playing at his/her ability level. They enjoyed this and saw reason for their own compositions to work:

1. so others could perform them
2. so rhythms and harmonies gelled.

We'd just returned to composing again but this time the children had slightly different parameters from the first time e.g. using given rhythms – pieces from a series of rhythms put together; still with pentatonic – discussing the emotional responses to various compositions.

[It will fit in easily with the specialist music programme, but it remains difficult to fit into topic/theme network].

Approaches and strategies adopted to introduce material from *The Pulse Music Album*

Project name: Phase Shifting

Number of lessons: 12 to 15 lessons

Familiarity of material: They were familiar only in building up rhythmic charts and melodic patterns using words from a current topic. Explores all the parameters.

Objectives: Initially to use yet another means of allowing the children to discover that music, composing especially, is accessible to all. Objectives were achieved.

Music skills/activities: instrumental skills

Composing activities –

Sound and symbol: sound to symbol and symbol to sound.

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

Compositions - original: students

Student input: when talking about how to extend and expand initial ideas when composing, a child volunteered the idea of 'Phase Shifting' (without minimalist terminology) without having any pulse background.

Composing as an incentive to the students' music learning: They like to be in charge of their own work.

Student composition titles: A few might have.

Appraisal, evaluation -

Recording student work: cassette player

Responses to the project material -

Response to the minimalist project – students: The students enjoyed the class lesson where everyone performed a piece they made-up together. (We did it vocally, singing the music to the letter names). They enjoyed working their pieces out and making them “works of art” but most experienced difficulties performing them (largely because they found coping with the pitch as well a bit too much).

Response to the minimalist project - teacher: Enjoyed working with the project

Project name : African Rhythms

Number of lessons: two, although first really successful, if time we could have completed them.

Familiarity of material: Familiar only in composing accompaniments to own poems. Never tried mixing simple and compound metres (wouldn’t have thought it was easy – just goes to show).

Our own poems often not rhythmic – would be manipulated.

Objectives: To perform the composition in the album.

Music skills/activities: Discussed rhythmic complexities in African music.

Discussed simple and compound time. Chanted words and discovered the compound pattern $6/8 + 6/8$ (with repeat sign). Some movement although I knew there’d be two lessons maximum, to complete this. Some collaboration through movement but insufficient space for whole body movement in the classroom. Children made up sympathetic movements with meaning of words (but vocal expression actually suffered because of this). No unusual instrumental or vocal techniques used.

Composing activities -

Sound and symbol: usually when they compose these seem to come together. Some children are able to hear the sounds as they write. Others would write first and never be able to keep their own rhythms when playing or clapping. Unless the rhythms are extremely simple.

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

Compositions – time taken to write: students didn’t compose within this project but I could imagine it wouldn’t take too long – simplicity of structure.

Student Input: the movement.

Composing as an incentive to the students’ music learning: Could be. Groups could work together. Each member of the group would offer a rhythm having discussed bar length and use of simple and compound metre, and sound and silence. My instructions would be to keep rhythms simple.

Performance –

Performing from notation, by ear, by memory: First, they saw their part from notation. Whole class clapped all parts rhythm before separating into simple against compound, then the two with voices.

Improvisation: Unfortunately no. Could have had the drum improvisation midway as suggested by project. Saw idea too late to introduce before recording.

Conducting: On the third take I pushed voice part 1 tempo on – this was a group of boys who tended to settle into their own slower rhythm. Group 2 – mixed girls and boys – was much sharper and could hear them pulling back; they also wanted to push it on. There was also a preoccupation with movement.

Pulse: dotted crotchet (bell) and I think the drum part (crotchet, quaver) helped them as well. The slower dotted crotchet the easiest.

Appraisal, evaluation -

Recording student work: Cassette player used. Children realised that first two attempts got out of sync. Pointed out what the problems were (voice part 1 not listening to beat of instrumentalists). This was a useful exercise as they had to concentrate. Found take 3 much more rewarding.

Responses to the project material -

Response to the minimalist project – students: Children enjoyed working with the project. They found it easy after some of the other projects. Only the “musicians” (not necessarily the most talented in the class) had to cope with the cross rhythms.

Response to the minimalist project - teacher: Enjoyed working with the project. The project had a lot more potential than I exploited. It’s an idea which can be introduced to children who have not completed any of the other projects with ease and certain success.

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

How the project(s) fitted into the music programme: The project material fitted into time slot for music (though we had to make sure the same kids were doing music when I came to the classroom). The entire curriculum is divided into 7 areas of which music was one. All areas have to be completed at some stage. The children chose which area they want to work on as long as the area is not oversubscribed at the time.

Music lessons planned in advance or immediate: One master lesson for all of the class 5s (they work together) then kids worked in twos and fours on their own piece. (choose instruments, made rhythms and melody). I worked with a number of groups at any one session.

Total time spent on projects: over a two year period

Ability to strike a balance between various music activities and concepts: no balance. All instruments and rhythm (pitch in as far as most pieces had melody).

Role of the cassette player: useful for recording kids’ work.

The album of projects -

The projects as a sequential programme: would work as a sequential package from last year’s observation.

Strengths and weaknesses of the projects: Great ideas. Solid hinge for teachers and students alike. Good to introduce more twentieth century music with skills to write in the style.

Future use of project material: African rhythms – wonderful example. Can be done many ways.

Teacher's response to minimalist project material: I preferred working with *the Pulse Music Album* material more last year. This year it felt as though we didn't get anywhere. Many kids did not see their pieces through to performance stage. We did not force them. One day I will use them again but in the old style of teaching (i.e. in a music room with a weekly class).

Compositions associated with Teacher No. 5 written in response to the Phase Shifting project.

5.1 (Phase Shifting)

1.	composed by two female students	6.	crotchet = c.120
2.	performed on xylophones by students	7.	score transcribed by researcher
3.	one phase shift is missing – rotation of rhythmic cell back to front	8.	three recorded takes – steady pulse with rhythmic inaccuracies
4.	development of pitch and metre	9.	CD for Appendix 6 Track 1
5.	playing time 50 secs		

5.2 (Phase shifting)

1.	composed by four male students	6.	crotchet = c.130
2.	performed on drums by students	7.	score by researcher
3.	rotation of rhythmic cell back to front	8.	three recording takes all with inaccuracies
4.	pastiche	9.	CD for Appendix 6 Track 2
5.	playing time 36 secs		

5.3 (Phase shifting)

1.	composed by four male students	6.	crotchet = c.100
2.	performed on xylophones by students	7.	score transcribed by researcher
3.	rotation of rhythmic cell back to front – same rhythm as 5.2	8.	two takes both with inaccuracies – teacher played inaccurately in take 2
4.	development of pitch; rhythm of 5.2 recycled	9.	CD for Appendix 6 Track 3
5.	playing time 50 secs		

5.4 (Phase shifting)

1.	composed by two male students	5.	crotchet = c.140
2.	performed on xylophones by students – 3x each cell	6.	score by students – 65 cm long
3.	rotation of rhythmic cell back to front – noisy venue	7.	two takes both with some inaccuracies
4.	development of pitch	8.	CD for Appendix 6 Track 4
5.	playing time 30 secs		

5.5 (Phase shifting)

1.	composed by two female students	6.	crotchet = c.120
2.	performed on xylophones by student and teacher – 3x each cell	7.	score by students – 69 cm long
3.	rotation of rhythmic cell back to front – noisy venue	8.	one take – steady pulse, accurate performance
4.	development of pitch	9.	CD for Appendix 6 Track 5
5.	playing time 30 secs		

5.6 *Minimalast* (sic) Music (Phase Shifting)

1.	composed by two female students	6.	crotchet = c.100
2.	performed on xylophones by students – 4x each cell	7.	score by students
3.	rotation of rhythmic cell back to front – noisy venue	8.	two takes – steady pulse with some inaccuracies
4.	development of pitch; material from 5.7 recycled	9.	CD for Appendix 6 Track 6
5.	playing time 50 secs		

5.7 (Phase shifting)

Wood block

Wood block

1.	composed by two female students	6.	crotchet = c.100
2.	performed on xylophones by students – 4x each cell	7.	score transcribed by researcher
3.	rotation of rhythmic cell back to front – same rhythm as 5.6	8.	two takes both with unsteady pulse and rhythmic inaccuracies
4.	pastiche	9.	CD for Appendix 6 Track 7
5.	playing time 50 secs		

Teacher No. 12

Profile of Teacher No. 12: a male music teacher in a primary school in Hong Kong - 9 year old student age group.
Identification
Teacher: No.12

Gender: male

Study age group: 9 years (primary)

School location: Hong Kong

Study project(s):

1. Phase Shifting

2. Phase Shifting Melodies

Study timing: September 1989 – April 1990

Scores and transcriptions: 12.1 – 12.9

Recording(s): CD 7 Tracks 8 and 9

Education, preference and experience
Qualifications: B.Mus; Cert.Mus.Ed.(Sec).

Preferences (experience) –
Music Activities:

Play

Sing

Write/arrange

Dance

Listen

Read

Years of teaching experience: 7

Preferences (experience) -
Musical styles:

Pre20C Western classical

20C Western classical

pop/rock

jazz

musicals

Minimal music

Years of teaching in this school and ages taught: 2 years. Students aged 5 to 12 years.

Years of experience teaching the age group of the study: 2

Experience teaching twentieth century art music styles:

1. 2nd Viennese school - 12-tone row – serialism easy for composition – not so easy to play!
2. pop and rock - instrumental arrangements with emphasis on chord progressions.
3. Minimal music (of course!).

Experience teaching music of other cultures: China, Bali, Africa, India - songs, instrumental arrangements; improvisation/composition using particular rhythms, ostinati, ragas and pentatonic scales.

Teaching environment

School -

School location: Hong Kong (*British system*)

Public or private: Private (Government Aided)

How long has the school been open: over 30 years (mid 1950s)

Level: Primary

Number of students: 450

Socio-economic background of parents: middle-class professionals, multi-ethnic, non-caucasian.

General information about the school: The school is represented by 43 different nationalities, and most of the children will not stay indefinitely in Hong Kong. 80% of the children are second-language English.

School's interest in music: the school employs a full-time specialist and each child receives a generous allocation of time spent making music. Thriving orchestra, junior and senior choirs and recorder groups. Numerous performances to parents and school. Extra-musical activities include senior choir, senior recorders, orchestra, Scottish and folk dancing, Modern dance.

Venue for music lessons: music room and hall. The music room is tiny, which makes creative work difficult and the hall is constantly in demand by the PE Specialists, 2 class teachers (for class assemblies, drama etc). Next year I will remain in the tiny room, but a spare classroom will be made into a performing arts room for general use.

Music equipment: Audio equipment is good, untuned percussion OK, but tuned equipment terribly inadequate. Hope to buy some for this topic, especially Gamelan.

Curriculum: School Music Policy (copy received) on national curriculae (United Kingdom, Scottish LEAs, Hong Kong), and various music courses e.g. Silver Burdett.

Curriculum ranking of music activities: 1 recorder/instrument playing, 2 singing; 3 improvisation/composition/arrangement; 4 listening; 5 movement; 6 notation skills; 7 aural training; 8 music in society/in the community; 9 music history/musicology.

Class -

Class age: Students aged 9 -10 years with average age of 9 years and 9 months.

Gender of class: male/female – 47 boys, 48 girls.

Class level: Class 5

Class mix: mixed ability

Music background of the class: years 1-3 singing, recorder work and dance with another music specialist; years 4-5 singing in range of genres and styles, part singing and vocal extemporisation; recorder – ensemble work with tuned and untuned percussion graded for 3 abilities; dance traditional and creative dance with project teacher.

The children involved in this topic are particularly enthusiastic and adept in all areas of the curriculum. In music they are generally quick to pick up skills and are keen to explore musical ideas. I have been very pleased with their response this term to a module which investigates “chords” – their experiences in this topic will be of value in the Pulse Music topics.

Number of music lessons for project class per week: 3 – 2 as a class, 1 as a year group.

Length of lesson: half an hour

Personal beliefs in, and teaching perspectives of, music education

Teaching philosophy: aesthetic qualities – Aristotle: Politics VIII 3: “...there are branches of learning and education which we must study for a view to the enjoyment of leisure, and these are to be valued for their own sake”.

W.H. Hadow: “...to enoble and purify the soul of man by steeping it in pure and noble pleasure.”

Curriculum Paper 16: Music in Scottish Schools: “Few people are unaffected by music.... An educational system which leaves uncultivated these primeval urges abnegates responsibility for a vital area of personality.”

Curriculum Paper 16: Music in Scottish Schools: “Music of some kind is a basic need of young people”.

Curriculum Matters 4: Music 5 – 16: “Music readily links with other subject areas and can make an important contribution to the life of the school and to the wider community beyond.”

Curriculum Matters 4: Music 5-16: provides moral education (hidden curriculum) – “...the child is, learning to live in a social setting still needing to acquire the skills of group cooperation, patience in taking turns, listening to, and conversing with others.”

Curriculum Matters 4: Music 5-16: “For the child, music can provide enjoyment, stimulation, discipline, fulfillment and awareness. It is an outlet for self-expression and for social and structured contact with his or her peers.”

Eleanor Gamper: *Music with Mr. Plinkerton*: “Today’s child is exposed to more noise than at any previous point in the history of the world.... Right from the earliest possible moment we should consciously seek to foster critical listening and discrimination in our children. Indiscriminate listening is like a drug: it reduces the listener to a state of mental indifference, and passivity...To be able to really stop and listen, really listen, to oneself as well as others is indeed therapy.

Educational aims: bring children into contact with the musician’s fundamental activities of performing, composing and listening:

Develop a sensitive response to sound in general and in particular to music.

Develop insight through music into areas of experience some of which cannot be easily verbalised.

Develop the capacity to express ideas and feelings symbolically through the medium of sound.

Develop the necessary skills and concepts whilst engaged in musical activity.
 Develop social skills and awareness through making music together.
 Offer pupils opportunities to experience the personal satisfaction and self-confidence derived from striving after the higher possible standards whilst engaged in musical activity.
 Develop an awareness of musical traditions and developments in a variety of cultures and societies.

Personal ranking of music activities: same as curriculum ranking - 1 recorder/instrument playing, 2 singing; 3 improvisation/composition/arrangement; 4 listening; 5 movement; 6 notation skills; 7 aural training; 8 music in society/in the community; 9 music history/musicology.

Educational objectives: The children should be able to:
 Demonstrate an awareness of sound (including everyday sounds);
 Show readiness to experiment with sound;
 Be able to recognise some of the main characteristics of music;
 Recall and perform a wide ranging repertoire of songs;
 Imitate and recall simple rhythmic and melodic patterns/ combine to provide a simple accompaniment to a song;
 Take part in simple improvisations;
 Play by ear;
 Invent a short melody or composition;
 Participate as a member of a group;
 Create movement in direct response to a musical stimulus;
 To be able to associate the sounds of different kinds of music with particular situations, occasions and people.

Further information: Very little use of Italian terms for dynamics, speed etc. since English is the language we are trying to promote!

Pitch terminology and systems: high, low, higher, lower for classes 1-2; solfa for classes 3-6 to identify melodic characteristics leaps, steps, upwards etc.

Harmony terminology and systems: Class 5-6 major, minor by letter name and Roman numerals I, IV, V etc.

Rhythm terminology and systems: long short (younger classes) walk, running, step, stride (crotchet/quavers/minim/semibreve). American and English names to cater for all possibilities (e.g. emigration to Canada and Australia).

Evaluation and assessment: Assessment required for school reports, and pupil profiles. Continuous assessment evaluating appreciation, and aptitude in performing, listening and compositional abilities.

Preliminary opinion of The Pulse Music Album project material: Working with the material on students in age groups 6 and 9 years, with all of the projects, except the African and Gamelan projects which are to be tackled with 9 year olds if time permits. Gamelan needs lots of tuned percussion which we don't have at present. The real problem is lack of time, with a through-school topic on pollution this month, next month Hallowe'en, and then into Christmas! I shall try to work pulse music into these topics, I think, since I have to do what the rest of the school is doing (from a musical approach).

The children will be involved in the usual activities of performing, singing, playing and moving, and will also be listening and creating as before. They will be as usual, exposed to the skills and concepts of the Class 5 and 6 music curriculum. The main difference will be that the children will be dealing with one genre or style instead of a variety.

Approaches and strategies adopted to introduce material from *The Pulse Music Album*

Project name: Phase shifting

Number of lessons: 25

Familiarity of material: Using rhythmic and melodic ostinati to build up extended pieces of music. Using small units to teach concepts of pitch and rhythm.

Objectives: To explore possibilities for composition using techniques of phase shifting. During this process the children would be exposed to the concepts of pitch, rhythm, texture and form and would be involved in a variety of music-making activities. Objectives achieved.

Music skills/activities:

1. Performance: vocal – using voice with speech to compose music and perform music;
 - body sounds - finger-clicking, mouth pops etc
 - instrumental – experimented with the recorder to learn specific skills such as attack, staccato, f & p, cres/dim.
 2. Movement – small motor movement of body sounds; phase shifting walking and running using footsteps.
 3. Composition.
- No improvisation.

Collaboration/integration: The Pulse Music Topic formed part of a through-school topic on Pollution in which the children incorporated all other curricular areas.

Technology – recordings of minimalist music: I usually play extracts after children have done their own music – to illustrate the idea as composed by ‘real’ musicians. I played *Lightning* from *Liquid Days* by Glass; *Knee Game 1* from *Einstein on the Beach* by Glass; one or two *Dance Pieces* by Glass to let the children hear Pulse music by a composer other than themselves.

Composing activities -

Sound and symbol: This was an area where we were able to use both methods effectively. The children enjoyed seeing their sounds translated into symbol, and because this increased their skills in the use of symbols, they were keen to write down ideas and then play them.

Structure/Form: I was able to illustrate the main Western structures of binary, ternary, rondo, as well as patterns of number, timbre and dynamics which create a structure.

Composition pieces/exercises from *The Pulse Music Album* projects: Used material from the album, extended it, and also my own and children’s material.

Compositions – original: teacher compositions, class compositions, small student group compositions (combining a number of student rhythmic cells into one piece).

Compositions - time taken to write: The beauty about Minimal music is that the process of composition is quick and effective. Took few minutes for us to write.

Composition – the process: worksheets (see the end of this teacher profile) handed out to each student, outline the “techniques of Phase Shifting” (3 sheets) with examples and text. Techniques of Phase Shifting move students from writing rhythms only for the chanted text, to replacing the text by choosing “2 notes which can be easily played by descant recorders.”

Student input: The students were always full of basic melodic and rhythmic unit ideas and were keen to contribute ideas for organisation of material i.e. form, expression, instrumentation etc.

Composing as an incentive to the students’ music learning: The children discovered they could write very quickly, and compose effective, extended pieces of music. This was a definite incentive to their music learning.

Student composition titles: Most of their music centred around the topics of Pollution and Hallowe’en which we were doing as through-school topics. They often gave their pieces titles without being asked to.

Performance -

Performing from notation, by ear, by memory: Mainly from notation to build literacy skills.

Conducting: Usually conducted or wagged a finger and pointed. Usually the kids needed some sort of direction with a clear beat from me or a rhythm machine. The activities did improve their ability at maintaining a steady beat though.

Pulse: I usually used the rhythm section on the Clavinova to maintain a steady beat, but the topic fostered an awareness of steady pulse, and after a while the children didn’t need the rhythm box in the background.

Technology – sound source: I usually used the rhythm section on the Clavinova to maintain a steady beat, but the topic fostered an awareness of steady pulse, and after a while the children didn’t need the rhythm box in the background.

Performance situation: Pollution assembly at which both pieces were performed, along with other pollution songs, and a Negro spiritual, to the school (see assembly notes at back of this profile).

Appraisal, evaluation -

Recording student work: I always recorded everything they played – it’s time consuming but immensely rewarding, and the children really appreciate hearing their own compositions.

Responses to the project material -

Response to these minimalist projects – students: They enjoyed this project immensely. It was perhaps one of my most successful courses.

Response to these minimalist projects - teacher: Enjoyed them immensely. Tremendous fun. They have certainly caught my attention. Am finding it an exciting teaching album, and struggling to get away from project topic No. 1 (Phase Shifting) since the kids are so excited doing it. I’ve bought all three Glass operas, so I must have some liking for his music.

<p>Project name: Phase shifting melodies – refer to Phase Shifting responses</p> <p>Number of lessons: {a number of lessons with a private piano student}</p> <p>Familiarity of material: Using rhythmic and melodic ostinati to build up extended pieces of music. Using small units to teach concepts of pitch and rhythm.</p> <p>Compositions original: teacher compositions, individual student compositions.</p> <p>Composition – the process: {two worksheets handed out to each student explaining how to write/construct “Phase Shifting Melodies” by combining two melodies of different lengths. The arithmetic of working out how long the resulting piece was posed as a question to the students. <i>A Hallowe’en Lullaby</i> (written by the teacher) was given as a model. Two pitch sets of four notes each were given to write two melodies to given texts and text rhythms}.</p>
<p>Teacher’s response to working with material from The Pulse Music Album</p> <p>How the project(s) fitted into the music programme: Became the resource focus for the term.</p> <p>Future use of project material: Yes, definitely. I thought it was a pity we didn’t get beyond phase shifting, but that was a term’s work in itself.</p>

Worksheets submitted by Teacher No. 12

Page one

PULSE MUSIC - Phase Shifting
Worksheet completed by children

The technique of Phase Shifting takes a small rhythmic or melodic unit, and repeats this unit over and over. When the piece of music is in 2 or more parts, one part can repeat the unit over and over while the other part(s) shifts the phase. This can be done by moving the rhythm of the unit back by one beat at a time.



① 
② 

Use your own rhythmic unit, using a mixture of $\frac{1}{2}$ (crotchets), $\frac{1}{4}$ (quavers) and $\frac{1}{2}$ rests. Remember that your bar should add up to 4 beats only!

Now write out your rhythmic unit 5 times on the top line. On the second line write the same unit in Bars 1 and 5. In Bars 2, 3 and 4 of the second line write the phase shifted unit using the numbers below to help you.

1 2 3 4 2 3 4 1 3 4 1 2 4 1 2 3 1 2 3 4

Page two

PULSE MUSIC - Phase Shifting 2
PHASE SHIFTING ON 'LEG SAG' BEATINGS

Here are some of your 'leg sag' words:

cup	bottles	orange peel	cans/tins	wrapping
siding	wrappers	bottle tops	broken plates	empty boxes
case	paper	train cars	used diapers	lollipop sticks
tape	two clothes	milk bottle	old magazines	

This is a piece of music using a phase shifting rhythm based on one of these 'leg sag' words



Using the above list, choose one long 'leg sag' word, or 2 or more short words to make a rhythmic unit of 4 beats. Don't forget to use rests as well.

Word / Words	Rhythm
	

Now write out your phase shifting piece to fill. To shift the phase in the lower line move ONE BEAT to the LEFT in Bars 2, 3 & 4.

1 2 3 4 2 3 4 1 3 4 1 2 4 1 2 3 1 2 3 4

Now write out your phase shifting rhythm by moving ONE BEAT to the RIGHT in Bars 2, 3 & 4.

1 2 3 4 1 2 3 3 4 1 2 2 3 4 1 1 2 3 4

Compositions associated with Teacher No. 12 written in response to the Phase Shifting project.

12.1 Phase shifting on 'lap sap' rhythms – explanatory notes and score

Page 1

Discussion Assembly - Item 9

The piece of music you heard while you were coming into the Hall was called 'Changing Opinion'. It was written by Philip Glass who is a well known composer of Pulse Music or Minimal Music.

Class 6 have been studying Pulse Music, and been writing their own Pulse Music. To compose this type of music you write a small musical unit or cell. From this cell you can build up a whole piece of music.

We used lap sap words to compose our own pieces of music. These cells were written by Eleanor, Sharon, & Geoffrey. We used a technique called phase shifting - in phase shifting, one group perform the musical cell over and over, while another group keep moving the rhythm one beat backwards.

Page 2

Each composition is 20 bars long, which can then be used to make a piece of music 80 bars long.

That was piece of music using our voices rhythmically, which we can now make into a melodic composition, using our recorders and playing the same lap sap rhythms.

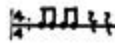
Just for fun, let's speed it up a little!

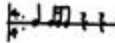
Page 3

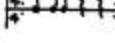
Changing Opinion - Philip Glass

Pulse or Minimal Music

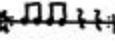
a musical cell

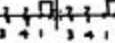
Eleanor  chocolate wrapping

Sharon  old magazines

Geoffrey  coke bottle

phase shifting

Group 1 

Group 2 

1 2 3 4 2 3 4 1 3 4 1 2 + 1 2 3 1 2 3 4

Page 4



1.	composed by three students, class and teacher	6.	crotchet = 104
2.	performed with chanted voices with 'snare drum' drum machine – 4x each cell	7.	score by teacher
3.	each rhythmic cell repeated and rotated then all three repeated and rotated together. Rotation of cell back to front.	8.	one false start, one complete take – strong, accurate performance
4.	expanded construction and structure, text and context, text and rhythm, and effect;	9.	CD for Appendix 6 Track 8
5.	playing time 3 mins 12 secs		

12.2 (Phase shifting) – recorders

Page 1

Recorders

Recorders

Recorders

Recorders

Recorders

Recorders

Recorders

Recorders

Drum machine

Page 2

Page 3

Page 4

Page 5



1.	composed by class and teacher	6.	crotchet = 132
2.	performed with recorders with snare drum' drum machine – 4x each cell	7.	score transcribed by researcher
3.	One rhythmic cell of 12.1 recycled with pitch set – each cell repeated x 4. Rotation of cell back to front.	8.	one complete take – vigorous, accurate performance
4.	expansion of construction and structure, pitch and instrumentation; material from 12.1 recycled	9.	CD for Appendix 6 Track 9
5.	playing time 2 mins 36 secs		

12.3-12.9 Seven pieces using the process of phase shifting melodies

12.3, 12.4, 12.5

12.6



12.7

12.8

12.9

1.	all composed by one piano student	3.	12.3 development of construction; simplified left hand 12.4 development of construction; simplified left hand 12.5 development of construction; simplified left hand 12.6 development of pitch; simplified left hand 12.7 development of construction, time and harmony; simplified left hand 12.8 development of structure, construction and pitch 12.9 development of construction, pitch; simplified left hand
2.	for piano	4.	scores written in teacher's hand with top line of 12.8 written by the student

Teacher No. 91

Profile of Teacher No. 91: female primary music teacher in a Sydney private boys' school – 9 (and 12) year old student age group.	
Identification	
<p>Teacher: No. 91 with the researcher as observer and aid for two classes, one at each level.</p> <p>Gender: female</p> <p>Study age group: 9 years and 12 years (primary)</p> <p>School location: NSW, Australia</p> <p>Study project: Phase Shifting</p> <p>Study Timing: February 1990.</p> <p>Scores and transcriptions: 91.1 – 91.4</p> <p>Recording(s): none</p>	
Education, preference and experience	
<p>Qualifications: B.A. (Hons); Dip. Ed; A.Mus.A. (performance)</p>	
<p>Preferences (experience) – Music Activities:</p> <p>Play an instrument</p> <p>Sing</p> <p>Write/arrange music</p> <p>Improvise music</p> <p>Listen to music</p> <p>Read books on music</p> <p>Years of teaching experience: 20</p> <p>Years of teaching in this school and ages taught: 6 years teaching students 7 to 12 years of age.</p> <p>Years of experience teaching the age group of the study: 2 years at 4th class level; 4 years at 6th class level.</p> <p>Experience teaching twentieth century art music styles: Examples from <i>Upbeat</i>. For example, music without a strong beat, music with crescendo/decrescendo.</p> <p>Experience teaching music of other cultures: Indian, Japanese, Australian aboriginal, Greek – introduce instruments, conventions. Students listen, see pictures, take part in limited ways in performing these types of music.</p>	<p>Preferences (experience) - Musical styles:</p> <p>Western classical music – pre 20thC</p> <p>Western classical music – 20thC</p> <p>Jazz</p> <p>Music of other cultures</p>
Teaching environment	
<p>School -</p> <p>School situation: NSW, Australia</p> <p>Public or private: Private</p> <p>How long has the school been open: 102 years</p> <p>Level: Primary and secondary</p> <p>Number of students: 330 (primary), 1100 (secondary)</p> <p>Socio-economic background of parents: upper middle class – both parents usually work.</p>	

School's interest in music: The schools' interest in music is strong, but in the secondary school there are many other competing interests and activities e.g. sport. Extra-musical activities include choir, recorder group, orchestra, string orchestra, brass band, concert band, percussion group.

Venue for music lessons: Music room, sometimes classroom for 4th class.

Music equipment: the school is well-equipped – all boys have recorders with 4th class on descant, and 6th class on treble; xylophones and glockenspiels, percussion instruments including drum kit, tambours, claves, tambourines; piano, record player, CD, tape player; keyboard lab. available. There is no space for movement.

Curriculum: New South Wales State Curriculum

Curriculum ranking of music activities: singing; movement; aural training; notation skills; recorder/instrument playing; improvisation/composition/arranging; listening; music in society/in the community; music history/musicology.

Class -

Class age: 9 to 10 years; .

Gender of class: male – 4th class 26 students;

Class level: 4th class.

Class mix: mixed ability

Music background of the class: 4th class have had music classes twice a week last year in that school; string programme of 20 minutes per week.

Number of music lessons for project class per week: two

Length of lesson: forty minutes

Personal beliefs in, and teaching perspectives of, music education

Personal ranking of music activities: (same as that of school curriculum) singing; movement; aural training; notation skills; recorder/instrument playing; improvisation/composition/arranging; listening; music in society/in the community; music history/musicology.

Teaching method: Do it first, define it, eclectic.

Pitch terminology and systems: Solfa with moveable doh; rote learning of staff note names.

Rhythm terminology and systems: Hungarian time names – titi, ticka ticka; also crotchet, minim etc.

Evaluation and assessment: this is required and my choice. Individual assessment for performance skills. Class tests of notation skills, information, recognition of instruments, pieces etc.

Preliminary opinion of The Pulse Music Album project material: The material will not be totally strange to the boys as they have worked with techniques of improvisation and repetition before.

Approach and strategies adopted to introduce material from *The Pulse Music Album*

Project name : Phase Shifting

Number of lessons: 4 to 6 lessons with 4th class students

Familiarity of material: Unfamiliar

Objectives:

9 year age group – class 4: to score read, perform independent parts of *Chitter Chat* from the album. Best to pick 8 best [students] and [perform] it in four parts in pairs with [their] own music to point to;

to encourage students to improvise via using minimal techniques with voice, recorder, percussion.

I did not follow it through sufficiently to achieve this objective. We enjoyed the performances but they were all prescriptive.

Collaboration/integration: no

Technology – recordings of minimalist music: not played.

Composing activities -

Sound and symbol: symbol to sound

Structure/Form: not discussed

Compositions - original: students and teacher

Compositions - time taken to write: students asked to write a rhythmic cell for homework .

Composition – the process: phase shifting process applied to the rhythms

Student Input: students chose dynamic levels.

Student composition titles: students gave titles to the phase shifting pieces that evolved from their rhythmic cell.

Performance –

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

Improvisation: No.

Conducting: I did conduct.

Appraisal, evaluation –

Recording student work: yes. {The cassette contains performances of *Chitter Chat* with three takes - one without repetition of the cells, and two in three parts, each take becoming more ‘together’ although none resulting in clarity of the independent parts. Instrumentation included voices, and voices with percussion}.

Responses to the project material -

Response to the minimalist projects – students: Yes they enjoyed the material, but had they gone on to the improvisation stage they would have enjoyed it much more. They found minimalism, Phase Shifting, too much of a ‘system’.

Response to the minimalist projects - teacher: I found the project material stimulating. The students enjoyed the material but I felt I could have done more creative things with them and the material. I found minimalism was too much of a ‘system’.

Researcher’s observation of a class based around Phase Shifting

1. performing, composing and improvising activities planned;
1. 4th classes performed *Chitter Chat* from the album. 4th class students had been given a homework task of composing a short rhythm;

2. the students' rhythmic cells, some written down, others memorised, were written on the board with the help of the teacher, with the researcher present, using the material from the project as a model – some students working sound to symbol, others the reverse;
3. some of the students' rhythmic cells were phase shifted;
4. dynamics were added by students;
5. some of the short phase shifting pieces were performed by the students with chopsticks played on desk tops, or clapping, from notation;
6. the teacher conducted;
7. many students chose to add a title to the piece once it was performed – e.g. *The Clunk Machine*, *Mexican Chili*, *Marching Practice*, *Brass Band Mountain*, *In the Mood*.

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

The album of projects –

Age group suited to the projects: The teacher felt that the material would be better with students of around 15 years as they are interested in systems.

Compositions associated with Teacher No. 91 written in response to the Phase Shifting project

91.1, 91.2, 91.3 *The Clunk Machine*, 91.4 *Mexican Chili* - Phase Shifting

91.1

Musical notation for 91.1, consisting of two staves in common time (C). The top staff has a treble clef and the bottom staff has a bass clef. The piece is marked with a first ending bracket (1) and consists of five measures. The dynamics are *f*, *p*, *f*, and *p*. The notation features rhythmic patterns of eighth and sixteenth notes with rests.

91.2

Musical notation for 91.2, consisting of two staves in common time (C). The top staff has a treble clef and the bottom staff has a bass clef. The piece is marked with a first ending bracket (1) and consists of five measures. The notation features rhythmic patterns of eighth and sixteenth notes with rests. Below the staves, there are rhythmic symbols: $\lfloor 3 \rfloor \lfloor 3 \rfloor$ and $\lfloor 3 \rfloor$.

91.3 *The Clunk Machine*

Musical notation for 91.3, consisting of two staves in common time (C). The top staff has a treble clef and the bottom staff has a bass clef. The piece is marked with a first ending bracket (1) and consists of five measures. The dynamics are *f*, *p*, *p*, *p*, and *f*. The notation features rhythmic patterns of eighth and sixteenth notes with rests.

91.4 *Mexican Chili*

1.	composed by individual male students	3.	91.1 development of dynamics 91.2 development of time 91.3 development of dynamics
2.	some compositions were performed with chopsticks struck on the back of a chair by students – 4x each cell	4.	score transcribed by researcher

Teacher No. 107**Profile of Teacher No. 107 – female specialist music teacher in a New Zealand primary school - 9 year old student age group.****Identification****Teacher:** Primary music specialist. No. 107**Gender:** female**Study age group:** 9 years – primary**School location:** Auckland, New Zealand**Study project(s):**

1. Harmonic Prisms
2. Phase Shifting
3. Add and Subtract.

Study Timing: April to June 1990.**Scores and transcriptions:** 107.1 – 107.12**Recording(s):** CD 6 Tracks 10 – 21**Education, preference and experience****Qualifications:** TTC (Teacher Training Certificate), LTCL (Licentiate of Trinity College, London).**Preferences (experience) –****Music Activities:**

Play piano
Sing
Write and arrange music
Dance
Listen to music

Preferences (experience) -**Musical styles:**

Western classical music pre-C20
Western classical music C20
Musicals

Read books on music

Accompany

Years of teaching experience: 16

Years of teaching in this school and ages taught: 10 years of teaching experience with students 5 to 10 years.

Years of experience teaching the age group of the study: 10

Experience teaching twentieth century art music styles: A little. Short extracts used for the purposes outlined below (in music of other cultures).

Experience teaching music of other cultures: Many Maori songs – chants and other Polynesian songs; for listening – short excerpts of Indian, African, Balinese etc., for movement, or for studying different rhythms, instrumental groupings etc. i.e. just exposure, some analysis, and comparison.

Teaching environment

School -

School situation: Auckland, New Zealand

Public or private: Public

How long has the school been open: 70 years.

Level: Primary

Number of students: 560

Socio-economic background of parents: 80% professional, or business people, predominantly European; 20% “working class”.

General information about the school: The school covers from Junior 1 (5 year olds) to Standard 4 (10 year olds). All Standard 3 and 4 classes are composites. Quite a large ‘shifting’ population, in that the school roll has increased rapidly in the last, say, two years, so that quite a number of children are new in the senior part of the school, which affects the music programme.

School’s interest in music: The schools’ interest in music is strong in that it structures its staff in order to provide for a music specialist, very unusual in a New Zealand state school.

Extra-musical activities: choir, recorder groups (two years), Latin American dancing, the annual musical production.

Venue for music lessons: music room

Music equipment: the school is well-equipped- class set of recorders, 8 xylophones, 4 metallophones, full range of percussion instruments, tape recorders, stereo, 3 pianos, we are about to get a synthesizer, and bass guitar.

Curriculum: National primary curriculum of New Zealand.

Curriculum ranking of music activities: –

singing/movement/improvisation/composition/arranging; aural training and listening; recorder/instrument playing/notation skills/music in society/in the community; music history/musicology. Very hard to do this. We have a strong emphasis on music making and creativity.

Class -

Class age: 8.06 to 10.8 years. Average age 9.3 years.

Gender of class: male/female – 17 boys, 19 girls.

Class level: Standards 3 and 4

Class mix: mixed ability

Music background of the class: Most students can read basic rhythms using French time names, and play a very simple melody on a recorder or xylophone, reading in the treble clef. About 6 students new to the school cannot read at all. Children attend recorder classes at school and read fairly efficiently. Singing is a high priority, and level of participation is good.

Number of music lessons for project class per week: two

Length of lesson: half an hour

Personal beliefs in, and teaching perspectives of, music education

Teaching philosophy: On the teaching philosophy side, enjoyment and involvement rank very high, with a desire to aim at high standards in whatever sort of music making is going on.

Educational aims: My aims in music teaching would be those of our new national curriculum – to have children create, recreate and appreciate music at a level appropriate to their age. I am to provide them with the skills and understandings necessary to do this.

The aim is that every child be able to read a simple melody in the treble clef by Standard 4, and have the skills necessary to take part in a ‘class orchestra’ situation.

That every child enjoys singing with good tone, diction and phrasing, and has developed a critical faculty in this regard.

That every child has heard a wide variety of musical styles, and instruments, and can listen appreciatively.

That children can create music of their own using tuned and untuned instruments, environmental sounds, body percussion.

That children learning instruments out of school will be given an opportunity to use their more advanced skills in the classroom.

Personal ranking of music activities: for 5-7 year olds – singing and movement and aural training; recorder/instrument playing and listening; improvisation/composition/arranging; music in society/in the community.

For 8 – 10 year olds – singing and aural training; notation skills and recorder/instrument playing and listening; movement and improvisation/composition/arranging; music in society/ in the community; and music history/musicology.

Teaching method: In the Junior School we do a great deal of singing and movement, we start tonic sol- fa to aid singing; and French time names. We create “sound pitches”. We study concepts such as high, low, fast, slow, loud, soft, phrasing, and 3 major and minor tonality.

We use tuned percussion to accompany singing.

In Standard 2 we start to read from the five lines, and play the recorder.

We listen, move, and dance.

We create simple tunes and sound pictures.

We sing a wide variety of songs.

In Standard 3 and 4 these concepts become more advanced, in a class orchestra situation.

Out of school recorder classes are offered.

Children create group and individual pieces in structured and unstructured situations. Listening includes a closer study of the orchestra, and other instruments. A lot of movement work is undertaken in the Junior School for aural perception.

Singing a wide variety of songs continues.

Pitch terminology and systems: Solfa for learning to sing in tune for 5, 6, 7 year olds.

Harmony terminology and systems: We study chords using chime bars. This starts with 7 year olds.

Rhythm terminology and systems: French time names continue to be used in Standard 3 and 4.

Evaluation and assessment: It is required, but it would also be my choice. Through practical performance, and written tests.

Preliminary opinion of The Pulse Music Album project material: The project material will fit into the music curriculum, in that we will be using rhythm and pitch notation skills, but this type of music building will be quite different from anything they have had before. I will be using the section of the music timetable called “class orchestra”.

Approach and strategies adopted to introduce material from *The Pulse Music Album*

Project name : Harmonic Prisms

Number of lessons: 6

Familiarity of material: The material wasn't familiar. The children have played pieces, and created their own, but never this structure.

Objectives: To discover that pulse and repetition are the building blocks of this music. To understand the way *The Wind* is composed.

To play *The Wind*.

To write children's own pieces in this fashion.

We achieved these objectives.

Music skills/activities: Slow dynamic changes in single notes and beats. Children's own ideas on best way to create a piece called 'The Wind'. Children's own compositions using Harmonic Prisms.

Controlled dynamic changes on gong and using chime bars.

Collaboration/integration: No.

Technology – recordings of minimalist music: We used the gamelan music right at the beginning of the session to try and answer the question “What are the main features of this music”. After a while I got the children to try to copy the music on a metallophone (example on tape) and then see what they had done and they came up with repetition of rhythm and notes.

Composing activities -

Sound and symbol: The students worked from sound to symbol, i.e. the children just ‘messed about’ until they found a chord progression they liked – they jotted the notes down, then they added rhythms, although these don't show up on the tape!

Structure/Form: We had to understand the structure of the music in order to create our own prisms. We physically separated the different chords represented by different

children with chime bars. Then had a child point to each group in turn, for 8 bars.

Composition pieces/exercises from *The Pulse Music Album* projects: Used material from the album – *The Wind* was performed.

Compositions - original: written by the children

Compositions - time taken to write: one lesson

Student Input: When they played *The Wind* there were lots of suggestions about dynamics, tempo, balance. Lots of criticism of their own performance. They didn't like the name *The Wind* for the piece.

Composing as an incentive to the students' music learning: Yes, it was an incentive. The students understood the nature of 'harmonic prisms' better.

Student composition titles: Some children named their pieces. I think names helped the 'listening', as children enjoy others compositions better. But some children, having thought up a title, could not then stick to the rules of the game, and wanted to do their own thing.

Performance –

Performing from notation, by ear, by memory: The children played from notation when playing *The Wind*. They played by ear and memory for their own pieces (they jotted down the names of the notes they were going to use).

Improvisation: No improvisation.

Conducting: Mostly I kept the beat in this project when the class was playing together. The children kept their own pulse when they were playing their own pieces.

Pulse: In performing, the children find a slow pulse easier. In listening they hear either quote OK.

Performance situation: classroom.

Appraisal, evaluation –

Recording student work: We used the cassette player to record the students' work. The children enjoy hearing themselves, and can criticise their own work that way, rather than have the teacher do it.

Responses to the project material -

Response to the minimalist projects – students: The students enjoyed working on the project. They were quite pleased with their finished products – but I can't recall any particular comments.

Response to the minimalist projects - teacher: Yes, I enjoyed working with this project although I was amazed how hard the children found performing *The Wind*. They seemed to want to copy the rhythm of the previous bar always.

The students kept getting 'absorbed' into each others rhythmic patterns. Group independence or individual rhythmic independence was hard to establish.

Project name: Phase Shifting

Number of lessons: 6

Familiarity of material: The material wasn't familiar. The nearest thing would be rhythmic rounds.

Objectives:

1. to understand the method of composition called phase shifting;
2. to play *In Step – Out of Step*;
3. to create a class piece in this idiom;
4. to perform *Chitter Chatter*, and extend the idea;
5. to play *I think it's going to rain*;
6. to create a class piece using this method.

All objectives achieved except for No. 5.

Music skills/activities: We did what is outlined above. We used flash cards with one beat on each and children changed places to show how the beats change.

We used clapsticks. Also “stand up sit down” techniques while performing *Chitter Chat*.

Collaboration/integration: No. One of the difficulties of being a music specialist.

Technology – recordings of minimalist music:**Composing activities -**

Sound and symbol: The students worked from sound to symbol, and symbol to sound. When we did *The Tired Old Train* we made up a rhythmic pattern that sounded sluggish, and wrote it in the correct form in the correct bars, then the children experimented with sounds they liked (using set notes) and we added these. For the “fill in” notes, we thought what would sound most like a train.

Structure/Form: Yes, we discussed form and structure in so far as the nature of phase shifting is concerned. We learned how it is done, and how it can be used.

Composition pieces/exercises from *The Pulse Music Album* projects: From the album – *Chitter Chat*, and *I think it's going to rain* played.

Compositions - original: written by the children and myself combined. They were group efforts.

Compositions - time taken to write: Option A *The Zoo*, took about 15 minutes. *The Tired Old Train*, about 25 minutes.

Student Input: After hearing *Chitter Chat*, the children suggested it would be good to do a zoo piece and a mechanical piece such as a clock shop. Also they suggested the “tired old train” idea.

Composing as an incentive to the students' music learning: They always understand things better when they have had a go themselves. They always listen well to each others' compositions.

Student composition titles: The children named *The Zoo* and *The Tired Old Train* before they composed them. It did seem to make the focus well on what they were creating. Rather better listening was achieved when names were involved, than when a piece was just created according to set structure and no other reason.

Performance –

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

Improvisation: No improvisation.

Conducting: I counted at times and sometimes the children did, but they became used to the principles and after a while could manage as a group without help.

Pulse: There was a separate pulse in Option B which we gave up on (*I think it's going to rain*). It wasn't the fast steady pulse that was the problem, but the fast changing patterns.

Appraisal, evaluation –

Recording student work: The children focus well when listening to their own work, although poor quality of recording and difficulty in getting balance correct often brings disappointment.

Responses to the project material -

Response to the minimalist projects – students: Yes, they especially enjoyed *The Zoo!* Not Option B. It was too hard and they kept putting each other off the beat.

Response to the minimalist projects - teacher: Yes, except Option B which I gave up struggling with eventually. That is why we decided to try and write a slow one that sounded good.

Project name: Add and Subtract

Number of lessons: 3

Familiarity of material: No.

Objectives:

To perform *Drum Talk*;

To create a class piece using add and subtract;

To create pieces on small groups using add and subtract;

Objectives only partially complete.

Music skills/activities: We invented a game – children holding single (or double) beat rhythm cards, stand in a row in front of the class. Start with two children stepping forward as the class claps the rhythm. One child then calls out names to add or subtract a child from the line. The class keeps the rhythm going.

We tried using 'kitchen utensils' office equipment.

Collaboration/integration: no

Technology – recordings of minimalist music: none used.

Composing activities -

Sound and symbol: In this project we worked from symbol to sound. We listed possible patterns. They came up with four semi-quavers, two quavers, one crotchet, two quavers, and a dotted quaver plus semiquaver, crotchet rest. Then in groups, they worked on creating bars they liked.

Structure/Form: only the structure of this type of music.

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

Compositions - original: written by the children working in groups.

Compositions - time taken to write: One lessons. When we recorded, we were running out of time, so decided to reduce the number of repetitions, which ruined the effect!

Student Input: Children constructed their own pieces, and chose their own sounds.

Composing as an incentive to the students' music learning: Yes – as they were demonstrating an understanding of this technique.

Student composition titles: We were working against the clock, rather and didn't really finish the project – so no titles were given.

Performance –

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

Improvisation: No improvisation.

Conducting: The children kept the beat in their groups, and I kept the beat when we worked as a class. The children were not able to work without an external beat keeper. They found changing from bar to bar very difficult.

Pulse: There was a separate pulse in Option B which we gave up on (*I think it's going to rain*). It wasn't the fast steady pulse that was the problem, but the fast changing patterns.

Appraisal, evaluation –

Recording student work: We used the cassette player to record the children's material only at the end. It would have been very useful had we had time to ponder what we learned and re-do our pieces.

Responses to the project material -

Response to the minimalist project – students: The children didn't enjoy this project as much as the other projects, as the method of construction seemed rather mechanical and again they found the changes from bar to bar hard to do smoothly.

Response to the minimalist project - teacher: I didn't enjoy working with this project as much as the other project, but I think this was largely due to the pressure to get through it.

Pressure of time spoilt this project. We learnt a lot from our first group recordings and should have then had another go. Short 'add and subtract' pieces were recorded in groups, but not very well!

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

How the project(s) fitted into the music programme: I ended up having to 'make room' for the projects because some of the concepts which I thought the children would have no problem with, they actually found very difficult e.g. repeating a bar six times and then moving smoothly to the next. So we had to spend lots of time on this sort of new skill.

Music lessons planned in advance or immediate: I planned the introduction and original lessons fully but then usually had to simplify my original thoughts and the children were slower to understand the concepts than I thought they would be.

Options from The Pulse Music Album projects: Phase Shifting Option A and B. The children enjoyed the thicker texture, and the extra ideas for their own pieces. "More like a piece" was one comment. Also good to get the extra practice at smooth changing from bar to bar after repeats.

Total time spent on projects: We did three projects, and took eight weeks, not consecutive.

Ability to strike a balance between various music activities and concepts: No, singing got left out, I'm afraid. Everything else was OK.

Role of the cassette player: I used the cassette player to record work and listen to it in order to understand or analyse work, also to appreciate work.

Student reaction to minimalist excerpts on the kit's cassette tape: The children enjoyed the cassette of excerpts. We listened particularly to try to discover “what this sort of music was about”. The children got quite involved in this and came up with lots of good answers.

The album of projects –

The projects as a sequential programme: No, I do not think the projects would work as a sequential package. I found all the concepts too difficult for my young children, and although they can be simplified to a certain extent (and made more difficult), I think having different groups doing different things and having to change within the space of a single beat beyond the capabilities of small children.

Age group suited to the projects: I felt my 9 and 10 year olds were about the youngest that could cope with these ideas, except perhaps simple phase shifting. I felt all projects could be used with children older than 9 and 10.

Strengths and weaknesses of the projects: It certainly is different from anything I have tried before. I think Intermediate age children (11 and 12 years) upwards would enjoy it the most.

Simpler examples are needed for use with younger children. Also examples that sound good slow.

Projects are well explained and set out. Examples are attractive and appealing to children.

Teachers may prefer to have more ideas suggested to them about how they could use this material.

My children kept wondering why they had to “stick to these rules” when creating.

Future use of the project material: I would like to use the project material again, as I always do much better with things a second time round. I would like to try the three projects I did, again, allowing a lot more time for the development of each.

Teacher's response to Minimalist project material: I enjoyed working with Pulse Music. I enjoyed Add and Subtract best, and I think we were beginning to appreciate this whole new concept of music construction by then.

Students response to minimalist project material: The children enjoyed all the work with the projects. Perhaps playing *The Wind* was the least enjoyed as they felt someone was always making mistakes and spoiling the whole.

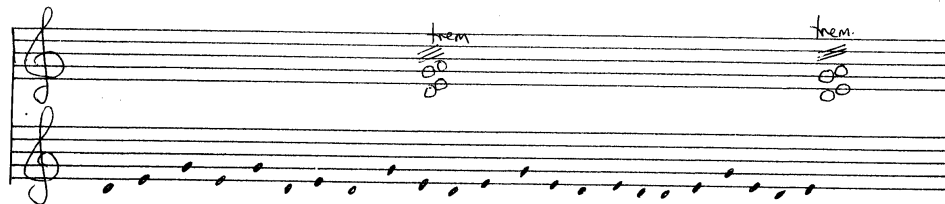
They always enjoyed making their own examples best, but often wondered why they had to stick with the given structures.

I was sorry after I started that I chose this group, as I have four parallel groups, and this one turned out to be the least “with-it” musically speaking!

We had great difficulty with the speed needed to make things sound good. That's why we invented *The Tired Old Train*. I should have spent more time developing one project, I think, rather than pushing through three.

Compositions associated with Teacher No. 107 written in response to the Harmonic Prisms project

107.1 Copying the gamelan



1.	improvised by the class	5.	playing time 15 secs
2.	performed on metallophones by students	6.	transcription by researcher
3.	expansion of structure and time	7.	evocative performance
4.	unmetred	8.	CD for Appendix 6 Track 10

107.2 Three-chord pattern with root position triads (Harmonic Prisms)

1.	composed by student(s)	6.	crotchet = c.85
2.	performed on metallophones or glockenspiels by students	7.	score transcribed by researcher
3.	three bar pattern repeated three times	8.	one take – accurate performance
4.	development of pitch	9.	CD for Appendix 6 Track 11
5.	playing time 25 secs		

107.3 Three-chord pattern with inverted triads (Harmonic Prisms)

1.	composed by student(s)	6.	crotchet = c.97
2.	performed on glockenspiels by students	7.	score transcribed by researcher
3.	inaccuracies in performance	8.	one take – generally accurate performance
4.	pastiche	9.	CD for Appendix 6 Track 12
5.	playing time 20 secs		

107.4 Four-chord pattern (Harmonic Prisms)

1.	composed by student(s)	6.	crotchet = c.100
2.	performed on glockenspiels by students	7.	score transcribed by researcher
3.	inaccuracies in performance, uneven tempo and hesitations	8.	one take – two layers together but varying pulse
4.	development of pitch	9.	CD for Appendix 6 Track 13
5.	playing time 35 secs		

Compositions associated with Teacher No. 107 written in response to the Phase Shifting project

107.5 (Phase shifting)



1.	composed by student(s)	6.	crotchet = c.120
2.	performed on untuned percussion (maracas?) by students	7.	score transcribed by researcher
3.	cells repeated four times, cell four repeated five times	8.	one take – generally accurate performance
4.	playing time 43 secs	9.	CD for Appendix 6 Track 14
5.	pastiche		

107.7 *The Tired Old Train* (Phase Shifting)

The Tired Old Train.

1.	composed by teacher and students	6.	crotchet = c.76
2.	performed on recorders and snare drum by students	7.	score written by teacher
3.	cells repeated six times	8.	one take – evocative performance
4.	expansion of time, structure and construction	9.	CD for Appendix 6 Track 16
5.	playing time 1 min 30 secs		

Compositions associated with Teacher No. 107 written in response to the Add and Subtract project

107.8 Piece 1 (Add and Subtract)

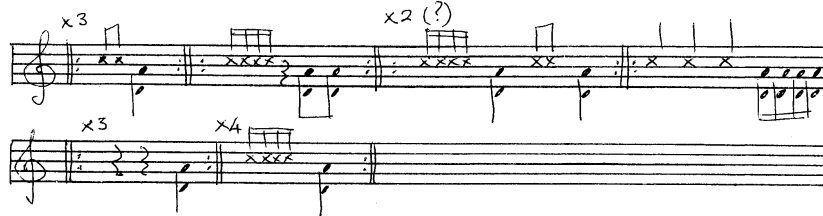


1.	composed by student(s)	6.	crotchet = c.120
2.	performed on sticks and low drums by students – 6x each cell	7.	score transcribed by researcher
3.	some inaccuracies in performance. First three cells same as those of <i>Drum Talk</i>	8.	one take – steady pulse, some rhythmic inaccuracies
4.	opening of <i>Drum Talk</i> recycled	9.	CD for Appendix 6 Track 17
5.	playing time 1 min 5 secs		

107.9 Piece 2 (Add and Subtract)

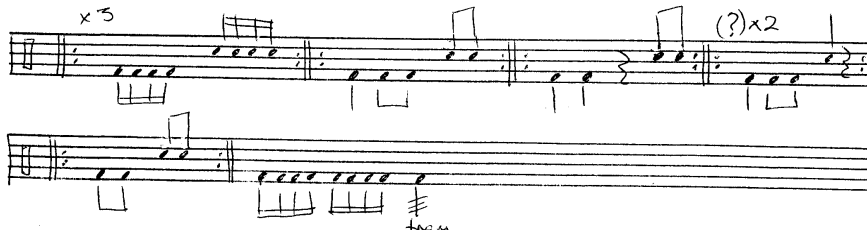
1.	composed by student(s)	6.	crotchet = c.72
2.	performed on sticks or maracas and low drums by students – 3x each cell	7.	score transcribed by researcher
3.	each cell repeated three times	8.	one take – pulse steady, some rhythmic hesitations
4.	pastiche	9.	CD for Appendix 6 Track 18
5.	playing time 45 secs		

107.10 Piece 3 (Add and Subtract)



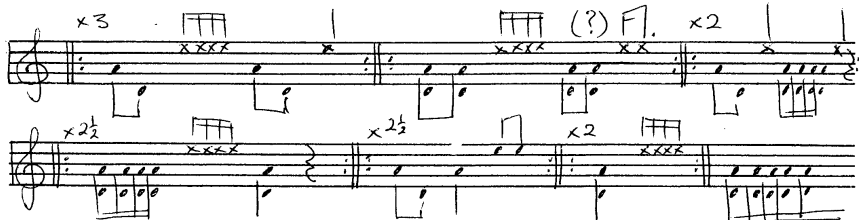
1.	composed by student(s)	6.	crotchet = c.76
2.	performed on xylophone and drums by students	7.	score transcribed by researcher
3.	variable cell repetition	8.	one take – rhythmic inaccuracies and omissions
4.	development of pitch (harmony)	9.	CD for Appendix 6 Track 19
5.	playing time 45 secs		

107.11 Piece 4 (Add and Subtract)



1.	composed by student(s)	6.	crotchet = c.72
2.	performed on sticks and drums by students	7.	score transcribed by researcher
3.	variable cell repetition, varying rhythms played in cell four	8.	one take – rhythmic inaccuracies
4.	pastiche	9.	CD for Appendix 6 Track 20
5.	playing time 35 secs		

107.12 Piece 5 (Add and Subtract)



1.	composed by student(s)	6.	crotchet = c.67
2.	performed on triangles and xylophones by students	7.	score transcribed by researcher
3.	variable cell repetition, varying rhythms played in cell two	8.	one take – rhythmic inaccuracies
4.	pastiche	9.	CD for Appendix 6 Track 21
5.	playing time 55 secs		

Table 6.1 Commonalities and differences between the two teachers whose compositions expanded and developed material presented in the projects (expanders)

Education, preferences and experience:
<ul style="list-style-type: none"> • both were musically qualified; • both were experienced teachers; • both were music specialists (not classroom teachers) in primary schools; • both noted a preference for twentieth century art music; • both noted composition and arranging as personal activities; • one had previously introduced twentieth century music into her/his teaching and one had done very little; • both had previously included music of non-Western cultures in their teaching.
Teaching environment:
<ul style="list-style-type: none"> • both worked in a school whose student population drew largely from medium to high socio-economic group; • one worked in a private school and one in a public; • both worked in schools with a strong interest in music; • both worked with students who had not elected to study music; • both worked with students of mixed musical ability, most of whom had undertaken a music programme at the school in previous years • one noted that resources were adequate while another felt they were inadequate.
Teaching perspective:
<ul style="list-style-type: none"> • both addressed issues of empowerment through the pleasure and enjoyment to be gained from music in their music philosophy; • both ranked performance activities higher than composition.
Approaches and strategies:
<ul style="list-style-type: none"> • both predicted that the project material would fit into their current music programme; • both engaged their students with the first project, Phase Shifting; • both named skills and concepts learning through composition as one of their objectives; • both noted common ground between project material and previously held knowledge; • both teachers adopted a practical approach with music composition as the main focus; • both adopted a strategy sequence of performance and composition based on a model piece; • both played prerecorded minimalist excerpts;

- both contextualised composing activities by making them relevant to contemporary society;
- both adopted prescriptive task designs – model, and template and model;
- both discussed aspects of structure with the students;
- one teacher worked with the material through composing prior to introducing it to students, the other did not;
- both worked with the project material over a long period of time i.e. 15-25 lessons;
- one noted that students took a few minutes to compose, the other that they took a lesson;
- one teacher encouraged students to use instant composition;
- both employed the student composers as groups and as a class encouraging students to interact with, and learn from, each other;
- both worked through composition by committee;
- one encouraged students to compose as individuals;
- both recycled material;
- both employed composition titles as a programmatic connection and impetus;
- one integrated the project material with the school topic;
- both noted that students worked from sound to symbol;
- both composed with the students in the classroom;
- one improvised;
- both adopted instruments suited to the instrumental experience of the student age group;
- both used an internal ‘musical’ beat to control the pulse;
- both noted that their students performed from notation with one teacher acknowledging use of ear and memory as well;
- both submitted one or more vigorous, accurate recorded performances of student compositions;
- both noted that recording the students’ works was rewarding, empowering and time-consuming;
- both recorded performances of student compositions for evaluation purposes;
- both selected and adapted project material according to the students’ different developmental levels and the students’ reasoning was sought within these tasks;
- both adopted a student-centred approach;
- I interpreted the roles adopted by all the teachers to be enablers who allowed an encouraged the students to explore as they composed;
- both worked as teacher as composer;
- both adopted a two-way learning approach.

Outcomes:

- both teachers submitted two compositions, all of which expanded the structure of the project models;

- both submitted compositions which developed several musical parameters;
- all of the compositions which expanded aspects of the project models were written by the students as a class with the teacher involved in the composing process;
- both empowered their students, one by placing student compositions in a concert, the other by adopting student topics of zoo and train;
- both were positive about the album contents;
- both teachers and students were positive about their engagement with the projects;
- both expressed interest in using the material in the future.

Table 6.2 Commonalities and differences between the two teachers whose compositions developed material presented in the projects (developers)

Education, preferences and experience:
<ul style="list-style-type: none"> • both were musically qualified; • both were experienced teachers; • both were music specialists (not classroom teachers) in primary schools; • one developer listed music preferences and one did not address the question; • one noted a preference for twentieth century art music; • both noted composing and arranging as personal activities; • both teachers had had little or no experience with twentieth century art music; • one teacher had introduced students to non-Western music and one had had no experience;.
Teaching environment:
<ul style="list-style-type: none"> • both worked in a school whose student population drew largely from the medium to high socio-economic groups; • both taught in private schools; • one worked in a school with a strong interest in music and one felt music was not supported; • both worked with students for whom music was not an elected subject; • both worked with students of mixed musical ability, most of whom had undertaken a music programme at the school in previous years; • both expressed concerns about venue and/or resources.

Teaching perspective:
<ul style="list-style-type: none"> • one addressed issues of empowerment and an holistic approach to music in the music philosophy while the other did not address the issue; • one ranked composing/arranging activities highest and the other singing.
Approaches and strategies:
<ul style="list-style-type: none"> • both predicted that the project material would fit into their current programme; • both engaged their students with the first project, Phase Shifting; • one teacher aimed to empower students through composing and the other aimed to improvise; • both noted common ground between the project material and previously held knowledge; • both focused on aspects of music (notation, improvisation) rather than composition; • both adopted a strategy sequence of performance and composition based on a model piece; • neither wrote of playing prerecorded excerpts of minimal music; • neither contextualised the composing activities; • both adopted a prescriptive task design – model; • neither discussed aspects of structure; • neither worked with the project material prior to introducing it to students; • one spent a long time with the project material (12-15 lessons), the other only 2-3 lessons; • one gave students a composing task for homework; • one encouraged students to compose in groups and as a class, the other as individuals; • one teacher recycled material; • neither placed an emphasis on titles for student compositions but noted some students chose to do so; • both noted that their students worked both from symbol to sound and sound to symbol; • neither teacher improvised; • both offered their students untuned and tuned percussion for performance and composition; • neither teacher added a pulse to the compositions; • both noted that students played from notation; • both wrote about performance problems; • while one teacher submitted several recordings, none were of strong performances and the other developer submitted no recordings; • both wrote that they undertook several recording takes during which student performance improved indicating self-reflection and evaluation; • both adopted a student-centred approach;

- both adopted the role of instructor.

Outcomes:

- both submitted compositions which developed several musical parameters, pitch set for one teacher and dynamics for the other;
- both developers submitted compositions which were pastiches of project model(s);
- one teacher was positive about *The Pulse Music Album* contents, the other expressed negative comments;
- both teachers were positive about their engagement with the project material;
- students of both teachers were somewhat positive about their engagement with the project material;
- both expressed interest in using the material in the future.