AESTHETIC PERCEPTION IN MUSIC EDUCATION:

ASSESSING PUPILS' COMPOSITIONS

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The aim of the thesis is to make explicit the criteria of aesthetic appraisal: how teachers and pupils *perceive* how sounds are shaped into musical form, the *values* they hold and the *language* they use. The participants in the fieldwork were 154 children from ages 9-13 years (spanning upper Key Stage 2-3 of the National Curriculum) and 62 teachers on respective generalist/specialist teacher training courses. The research approach is constructivist yet the design combines both quantitative and qualitative methodologies deriving from research in aesthetic education, music education, the psychology of music and personal construct psychology. In Part I [Pupils' Perceptions of Compositions], the quantitative results show significant differences with respect to age, gender and categories of perception. The qualitative results give a more differentiated picture with examples of the language used. In Part II [Teachers' Perceptions of Pupils' Compositions], the quantitative results confirm trends emerging in the qualitative data to show similarities/differences in the way specialist/non-specialist teachers of music use criteria when assessing childrens' compositions.

The findings suggest that the effects of training predispose music teachers to assess compositions in a technical way using a highly specialised language whilst generalist teachers and children assess compositions in a global way using a rich metaphoric language. In addition, generalists use criteria for assessment more consistently than specialist teachers. To a certain extent these differences may account for the decline in effectiveness of music education between Key Stage 2 and Key Stage 3. On the basis of this research one way forward for music education might be to address the importance of how teachers and children form aesthetic perceptions so that criteria for assessing compositions can be shared, mutually respected and meaningfully applied.

CONVENTIONS FOR THE STUDY

- pseudonyms will be used for the children's names,

- the term 'teachers' will be used to describe an adult population of student teachers participating in the study,

- the teachers group will be referred to as 'experts' and 'novices' on the basis of their respective music training and selection for specialist/non-specialist courses.

CHAPTER 1

AESTHETIC PERCEPTION: LISTENING IN MUSIC EDUCATION AND THE LANGUAGE OF APPRAISING

This thesis is concerned with investigating how individuals make meaning from listening to music and how this is expressed in language. The research arose from my own interest as a music teacher and teacher trainer in the problematic area of assessing pupils' compositions. In the course of the research I set the case for investigating the role of language in this process and for making explicit the criteria of aesthetic appraisal.

This chapter explains how I arrive at the research design which is rooted in the everyday world of the classroom and the language of aesthetic discourse between pupils and teachers. To do this I set out the argument in three sections. These are (1.1) Context Within A Theory of Aesthetic Education, (1.2) Curriculum Developments In Music Education focusing on Composing, Listening and Appraising and (1.3) Language in Music Education and the Implications for Assessment. The first establishes a generic line of enquiry to examine the nature of aesthetic perception, the language of aesthetic discourse and its relevance to a theory of aesthetic education. The second focuses the research within the specific field of curriculum music composition to examine the music educational context of listening and appraising. The third focuses on language and establishes the line of enquiry to examine both pupils' and teachers' language of appraisal as a basis from which to reveal aesthetic dimensions of understanding.

1.1 Context Within A Theory of Aesthetic Education

The first area to be discussed is the field of aesthetic education. It can be argued that any study within this area must take issue with the notion of the *value* of a theory of aesthetic education within today's post-modern condition and its interface with culture, politics, education and the arts. This is because the interrelationship between theories of aesthetic education in the arts and the everyday practice of individuals forming their own sense of value is a complex issue which deconstructs any *one* meaning of a theory of aesthetic education and consequently its relevance and value within the field. As Hartley (1994a) states:

> Post-modernism is not a culture, is not a shared way of seeing the world, is not a unifying narrative. There are no canons anymore. (p. 90)

Usher and Edwards (1994) continue:

> Post-modernity, then, describes a world where people have to make their own way without fixed referents and traditional anchoring points. (p. 10)

This has implications for the 'positioning' of the research study. A research study which took an 'absolutist' position, that is one which made epistemological claims is outmoded. In other words, a study that seeks to make overarching invariant claims for a theory of knowledge of aesthetic education would not have credence in a study which examines personal value. So too, would be the opposite, that is a study which adopted a 'relativist' position where 'anything goes'. In other words a study which only seeks to describe valuing in personal terms would not have credence methodologically. Another research position which rejects such polarisation is one which takes a middle way: a route of 'perspectivism'. Perspective knowledge relates to practice in everyday life rather than to an invariant set of values. So, in considering the relevance of a theory of aesthetic education in post-modernity, it follows that it should be grounded in the practice of everyday life. Yet this is not without its own inherent consequences. Smith (1989) sets out the dilemma for such a position:

> ... such pluralism is responsible not only for much confusion, paradox and contradiction of modern life, but also for the growing paralysis of human judgement and will. (p. 1)

At this point I want to draw the reader's attention to the implications of this research position to inform the methodological framework. First, the research needs to be set in a context which is as near to every day practice as possible. Second, the research needs to provide a framework for investigating one facet of human judgement - in this case the *aesthetic dimension*. Third, in considering the causality stated above (Smith, 1989), one possible *response*, and in this context, one possible *reason* for this type of research, might be to 'reconstitute judgement' as a means to restore an aesthetic dimension in learning. The corollary for this type of research might be that it not only seeks to explore a set of values held by teachers and pupils in school, but it also seeks to effect some kind of change. As such my position as a researcher is closely aligned to action research. This kind of change, within the aesthetic dimension, can be argued to have the potential to affect the 'quality of being' both for the individual as well as within society's culture as a whole. This research position, that is one which embraces both perspectivism and action research, is a positive response to post-modernity, and, rather than 'paralysing action' hopes to promote a 'foreground to public dialogue, practical engagement and a certain kind of self referentiality' (Usher and Edwards 1994, p. 27). It is from this position that I shall investigate the context and relevance of theories of aesthetic education for this study.

The next part of the chapter sets out to clarify the relationship between *the philosophical tradition of aesthetics* and *aesthetic education in the arts*. I shall draw on key issues which are particularly relevant for this research.

The term 'aesthetic education' has been used as a general label, coined to refer to practice in arts education. Schools have often used the terms *aesthetic education* and *arts education* interchangeably. The more specific use of the term involves an

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area of literature with its own parameters of understanding. These parameters include the 'aesthetic' as a mode of special interest or experience, applied in the *perception* of art objects. It is the study of this *perceptual* mode (as distinct from the making mode of art) which belongs to the branch of philosophy known as *aesthetics*. The field of philosophical aesthetics, pioneered by Kant, Hume and Burke for example, sets out a 'science of enjoyment' whereby a norm or a standard could be discovered to regulate empirical taste. This is not the place to develop a discussion of the contribution of philosophical thought to the development of thinking within aesthetic education. Rather, I shall continue to draw out some of the relevant key issues for this thesis.

The first set of key issues is extrapolated from more recent literature in the field of aesthetics. This diversity is illustrated by Osbourne (1979):

> The central task of the philosopher of aesthetics is, I take it, to clarify the principles on which we select the special set of criteria of value that are properly to be counted as relevant to aesthetic judgement or appraisal.
>
> ... but this is no means universally accepted. There is, for example, an alternative view that in the field of aesthetics, philosophy can at best aspire to make itself into a kind of meta-criticism, examining and if possible clarifying the concepts used in literary and artistic criticism, in particular those concepts of style which are common to the plurality of the arts.
>
> (p. 5)

These statements are important for the research. I take up the first statement 'to clarify the principles on which we select a special set of criteria' as a central theme within the research. This research is concerned with investigating the criteria which both teachers and pupils use to assess music compositions. In the course of this thesis I will examine these criteria as dimensions of aesthetic appraisal. The second statement introduces another central idea which Osbourne calls 'meta-criticism'. In due course I examine how pupils can develop such a meta-language through an increasing awareness of the language used to critically appraise their own compositions.

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Further key issues refer particularly to *aesthetic experience*. Whilst this area has a vast literature, it is the notion that experience can be 'aesthetic' which underpins the justification for the inclusion of aesthetic education as separate from other types of experience. Beardsley (1982), outlines characteristic features of aesthetic experience. These features set out key concepts in the theory of aesthetic education. The first of these is the defined *relationship* of the individual 'percipient' and the art object. The second is the *mode of attention* which according to Beardsley, affords a type of contemplation which might be *pleasurable*. He explains that this type of aesthetic gratification may result in the 'entertainment' of the art work as *elements* - formal relations, qualities and semantic aspects, which are sorted and grouped according to the percipient's sense of whether *they fit well together*. The third feature focuses on the *quality* of this type of attention which is *wholly absorbing* and which can 'transport' the percipient away from mundane reality. This quality is characterised on the one hand by *participation through attending,* and on the other hand by an *emotional distance or detachment.* This has come to be known within the discourse of aesthetics as *disinterested interest.* A fourth feature suggests that in this mode of 'being', percipients have an overwhelming sense of clarification. Something has been discovered and with it is a sense of personal integration, wholeness and a greater sense of self-acceptance. Many writers have referred to aesthetic experience as the ability to transcend the universality of our modes of existence to achieve, as Witkin (1989) says, our 'own particularity'. Many poets and writers have also sought to capture the sense of this experience. For example, in the poem *Thought*, DH Lawrence (in Sagar, 1972) describes it as 'man in his wholeness wholly attending' (p. 227).

This type of experience is promoted as a distinctive form of human well-being, and, as such, central to the *raison d'être* for aesthetic education:

> But the objects of aesthetic interest - such as harmonious design, good proportions, intense expressiveness - are not drugs, but part of the breath of life.   (Smith, 1989 p. 35)

That 'persons are more alive, awake and alert than usual .... they are constantly rewarded for these new discoveries' (Osbourne, 1972, p. 37) promotes a claim for aesthetic education as self-cultivation.

A further area which underpins this research is the concept of *aesthetic development*. Louis A. Reid (1969, 1982 and 1986) describes this concept as *distinctive features of informed aesthetic judgement*. The modus operandum of the informed 'aesthete' would be *critical interpretation*, rating works of art against a set of characteristics to which they attributed a sense of *excellence* and *value*. In early thinking (Beardsley, 1968) suggested that these characteristics could be a set of *canons* e.g. canons of unity, complexity and intensity, which could be used as a framework from which to make aesthetic judgements. These are the canons dismissed by Hartley (1994a) as irrelevant to the post-modern world. In later thinking the framework is modified to a more a general view. This modified view is that instead of *fixed* canons which are applied to works of art the *criteria* which are to be applied to interpret works of art should be generated through *discourse* within particular communities. Implicit in this view is that *skills, understanding and competence* are required to determine the criteria for aesthetic meaning:

> the ability to make aesthetic judgements comes from the ability to enter language-games in which approaches to the questions of value in our assessments of works of art are conceived, articulated and then understood.
>
> (Aspin, 1987 p. 38)

The 'discourse between particular communities' is a concept which underpins my research. In this research the 'discourse between particular communities' is that between pupils and teachers. This study investigates the differences and similarities in these two worlds of aesthetic value. By examining the values held by teachers and pupils it may be possible to make explicit just what these criteria for assessment are. Furthermore, it may be possible to contribute to an understanding of the skills, understanding and competence required to achieve mature aesthetic

development. Aspin (1987) introduces the idea that a *critical language* or *meta-language* exists which can be educable. I set out with this as an area for investigation to show how it might contribute to the concept of aesthetic development.

This brings us back to the importance of this type of activity for both individual experience within education, and also its relevance outside the classroom. As Smith (1989) says:

> We want students not only to appreciate art and to walk round proudly with their cultural heritage, but also to make informed choices and decisions in the contemporary art world. (p. 68)

At this point I would like to introduce a further argument, albeit in a foreshortened way, which acts as a signpost for discussion at a later stage in the research. The argument follows that language which facilitates this type of meta-discourse has more in common with 'cultural reconstruction' as opposed to 'cultural restorationism' in post-modernity. Whilst at one level it may offer an in-road into appraising the arts in schools, where both the values and assumptions of teachers and pupils are made more explicit, more significantly it promotes choice and democratic decision making. As such the challenge and therefore relevance of a theory of aesthetic education (to return to the section heading) may contribute to the 'extension of democracy as the quality of the whole way of life' (Laclau, 1993). Such a development of democratic aspirations has implications for both the school, the family and the workplace (Mouffe, 1993).

To return to the original thread. A further area which underpins this research originated in the work of Goodman (1976), which proposed the view that the aesthetic dimension is a type of *cognition*. The epistemology is defined as the 'philosophy of understanding and thus embracing the philosophy of science and the philosophy of art (Goodman, 1984 p.1). This acknowledged that emotions and feelings are required for our experiences of art, but that they are not separable from

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cognition. Goodman's definition of cognition is more inclusive and broadly

conceived:

> ... cognition is not limited to language or verbal thought but employs imagination, sensation, perception, emotion, in the complex process of aesthetic understanding. (Goodman, 1984 p.1)

His theory continues to locate aesthetic understanding in the *reading* of an art object

as a symbol. It is enough at this point to signal the importance of Goodman's

research which inspired the work of Howard Gardner (e.g. 1983, 1994) and the

Harvard Project Zero. This work provides the conceptual framework which is

situated in both *education* and *psychology*. Chapter 2 sets out the research within

the area of psychology and examines more fully the relationship between cognition

and aesthetic perception.

In the next part of this section I draw from the literature of aesthetic education

within the context of *arts education*. Indeed, much of the philosophy of aesthetics

stood its ground as a frame of reference for the literature of aesthetic education in

the arts. This is not the place to describe the chronology. Comprehensive

summaries exist elsewhere, for example in Ross (1989). I shall proceed by

examining how and why the value of a theory of aesthetic development was

articulated within arts education. I argue that the articulation arose as an 'internal'

response to the inherent needs of arts educators to clarify pedagogy, and also as an

'external' response to political pressures of accountability.

It can be argued that arts educators have found it difficult to articulate their working

theory. Perhaps as a consequence they have been resistant to doing so. An area for

further investigation might be the cause of this reticence. One possible explanation

might be psychoanalytical, situated within 'The Loss of Innocence Myth', where

arts educators face the unconscious struggle *not* to make conscious the pre-verbal

dimension from which the source of their creativity arguably springs. In other

words, to have to articulate and bring into verbal discourse dimensions of creativity

such as intuition, play and day dream, may for some arts educators represent a loss of 'innocence'. From a different perspective, the 'tacit' knowledge which arts educators espoused as their special 'form of knowledge', remained a powerful tenet of the 'mystery' of arts education. Within the legacy of liberal education, the wave of explorative arts activities which promoted creativity flourished and the call to account came from *within*. The Schools Council established several innovative projects e.g. Arts and the Adolescent, 1968; Design, 1968; Art and Craft Education, 1969; Music and Young Children, 1970; Music and the Young School leaver, 1971; Music in the Secondary School, 1973; Drama in Education, 1974; Art and the Built Environment, 1976. Witkin (1974), in 'The Intelligence of Feeling', (an outcome of the Schools Council Arts and the Adolescent Arts Project cited above), set out an analysis of the psychological and epistemological foundations of the arts in education.

> The project's distinct contribution was to key the theory of arts education into the theory of knowing as action. Art, in the project's account, is implicated in life rather than a transcendent of it, is a way of knowing and participating in the world, a way of changing the world...Witkin's theory of expressive action is essentially grounded in reality....
>
> It represented a move from charisma and revelation as guiding principles in arts education towards a more open, more objective, more accessible approach. The project attempted to bring the discipline of scientific enquiry into the affective domain, the realm of values.....(Ross, 1989 p. 9)

Whilst this text received much criticism, mainly because of the density of the language, it has still continued to be a serious referential point within arts education (Green, 1988; Abbs, 1989) and stands as a call to account for the artistic process from 'within'.

The 'external' call came from political pressures. The call was heralded by a wave of new realism and a political surge for accountability and effectiveness in the 1980s. As a testimony to this shock-wave came several reports including 'The Gulbenkian Report: The Arts in Schools' (1982). Whilst this did not contribute so much to a theoretical model of understanding, (as Witkin's had), it certainly

articulated the framework for aesthetic education within the place of the arts in the school curriculum. The impact of this document still holds as if it were a 'raft' on which arts educators could metaphorically float in a politically generated tide. It not only intensified the need to articulate the value of arts education, but also the need to reappraise the nature of schooling and its knowledge base:

> It has become clear, too, that the continuing cuts are having effects on the quality and range of education as well as on its provision. In short, the context of the Inquiry has changed. We are faced now with central questions about the purposes of schooling, the balance of the curriculum and about the whole character of education in Britain. (Brinson, 1982 p. 2)

The following year the Assessment of Performance Unit's publication 'Aesthetic Development' (APU, 1983) set out a framework for assessing pupils' achievement in relation to knowledge, context, skill and the process of making evaluative judgements. This was an important document in setting down a model for developing *appreciation skills* alongside productive skills in the arts. Whilst Aspin, in an essay on 'The Problem of Aesthetic Education' (NAEA, 1987) acknowledged that 'Aesthetic Development' (APU, 1983) was helpful in 'doing some vitally necessary ground clearing' (p. 47) he also suggested that, as an assessment tool and an investigative tool for charting aesthetic development and competence, the framework was only at a preliminary stage. In my own research (Gilbert, now Mellor, 1990) I modified the framework of the APU as an analytical tool to investigate the dimensions of aesthetic development in music education. In the present context of this chapter it is important to signal the place and the importance of this work to inform the methodology which is discussed more fully in Chapter 2.

At this point it is also important to set up another signpost. The models of aesthetic development within arts education have been *generic* models i.e. across the arts. Writers in the same vein include Ross (1978, 1984) and Abbs (1987, 1989). Other models have been articulated within *domain* specific areas. For example within *visual art* (Parsons, 1989; Ros Osbourne, 1989), in *drama* (Bolton, 1979) in *dance* (Laban, 1980; Redfern, 1982; Brinson, 1991) in *English* (Abbs, 1982) and

in *music* (Swanwick 1979, 1988, 1994; Paynter 1970, 1973, 1982, 1992). I have

drawn from the generic models which focus on cognitive development in Chapter 2.

The seminal texts which refer to music are discussed in the following section.

To conclude this section I would like to reintroduce the notion of the *relevance* of a

theory of aesthetic education especially since the Education Reform Act (1988).

With the advent of the National Curriculum the arts were marginalised. Although

the National Curriculum Council 'Arts in School Project 5-16' (1990) set out an

integrated policy for the arts, it was criticised, for example in Ross (1989) and

Aspin (1990), for not contributing to the theory and practice of arts education and

for not driving the debate further. The marginalisation is seen in the structure of the

National Curriculum to include only Music and Art as foundation subjects, through

a diminished arts entitlement at Key Stage 4, and through streamlining and

prioritising curriculum time in all educational institutions - primary, secondary,

tertiary and teacher education. In the late 1990s there is a revival of interest in re-

evaluating both the provision and more important, the theory which underpins it.

Recent reports attempt to monitor provision in the arts and advocate a course of

action. Such reports include Whither The Arts (SHA, 1995), Guaranteeing an

Entitlement to the Arts in Schools (RSA, 1995), Arts in Their View; A Study of

Youth Participation in the Arts (NFER, 1995), Setting the Scene (DNH, 1996), A

Poetry Survey for the Arts Council of England (ACE, 1996), Secondary School

Pupils and the Arts: Report of a MORI research study (ACE, 1996), The State of

the Arts (Ross and Kamba, 1997), The effects and effectiveness of arts education in

schools (NFER, 1998), The Disappearing Arts? The current state of the arts in

initial teacher training and professional development (RSA, 1998).

Cultural studies informs a way forward in evaluating the relevance of theory of arts

education and texts such as 'Moving Culture' (Willis, 1990) have contributed to the

theory of *'grounded aesthetics'* which acknowledges the aesthetic life of the

nation's youth. This report searches out a theory of aesthetic education from the *bottom-up* using a social constructivist methodology. Similarly Green (1988), takes an ideological critique of traditional aesthetic values to approach how perceptions of meaning in music are made. This takes us into the area of inherent and delineated meanings which is developed in Chapter 2. Hesmondhalgh (1997) in an article on the 'Cultural Politics of Dance Music' shows the relationship between cultural industry, politics and commodification. An analysis of the article raises important considerations for the values of ownership of authorship, originality and publication within a theory of aesthetic education. Whilst he considers a 'deconstruction-aesthetic' synonymous with some aspects of post-modernism, he also argues the case that this might be another from of a 'culturally-reconstructed' aesthetic. In other words, the young people who are engaged in remixing dance music, may not be deconstructing aesthetic ownership at all. On the contrary, the practice extends authorship by subsequent DJ/mixer publication. Similarly, the form of recording known as 'white-label' (a 12-inch vinyl recording which contains no information about its contents) is argued on the one hand to anonymise authorship but as Hesmondalgh states, this type of label promoted a form of subcultural ownership. Continuing this line of thought, Hesmondalgh also shows the example of the 'bedroom studio' as an image of access and autonomous production yet one which relies on Internet driven distribution and commercial mass consumerism. This example also illustrates Bruner's *culturism* theory of education. He defines it as 'how human beings in cultural communities create and transform meanings' (Bruner, 1996 p. 4).

> Although meanings are 'in the mind' they have their origins and their significance in the culture in which they are created. It is this cultural situatededness of meanings that assures their negotiability and, ultimately, their communicability. Whether 'private meanings' exist is not the point; what is important is that meanings provide a basis for cultural exchange. On this view, knowing and communicating are in their nature highly interdependent, indeed virtually inseparable. For however much the individual may seem to operate on his or her own in carrying out the quest for meanings, nobody can do it unaided by the culture's symbolic systems. It is culture that provides the tools for organising and understanding our worlds in communicable ways.   (Bruner, 1996 p.3)

To summarise: in the course of this section of Chapter 1, I have set out the field of research for aesthetic development within aesthetic education. By defining the terms of reference within the philosophical discourse of aesthetics, I have set an agenda for the research which draws from key features of aesthetic criticism, distinctive features of aesthetic judgement and the relationship between cognition and aesthetic perception. In setting out the agenda for research within education, I have established the grounds from which aesthetic development within the arts has been articulated. Finally, I have situated the study within a post-modern frame which draws on a theory of grounded aesthetics. A line of enquiry throughout my research examines the nature of aesthetic perception and the language of aesthetic discourse and its relevance to a theory of aesthetic education. Particular to the design of the study, emanating from this field of literature is a constructivist approach which is rooted in the everyday world of the classroom and the language of aesthetic discourse between pupils and teachers.

1.2 Curriculum Developments in Music Education focusing on Composing, Listening and Appraising

In this section the focus shifts from generic considerations of a theory for aesthetic education discussed above to the second area: the music curriculum. The particular area of the music curriculum in which this research is located is *composition* and how it is perceived by pupils and teachers. I shall set out a brief summary of its centrality to the music curriculum drawing out key points which underpin this thesis.

Composition has been central to the radical revision of the music curriculum over the last twenty years. In the early 1960s school music blossomed as an extra-curricular activity 'just as evidently as it declined in effectiveness and popularity as

a classroom discipline' (Rainbow, 1996). As a response to this 'decline' a 'new music policy' was formulated which would involve pupils actively participating in *making* music. From this emerged 'Experimental Music in Schools' or 'creative music', theorised and disseminated by the Schools Council Project, 'Music In the Secondary School' (1973). The most seminal texts of this movement were 'Sound and Silence : Classroom projects in Creative Music' (Paynter and Aston, 1970), 'New Sounds in Class (Self, 1967), 'Experimental Music In Schools (Dennis, 1970) and 'Ear Cleaning; Notes for an Experimental Music Course'(Schafer, 1967). Classrooms became equipped beyond the traditional Orff tuned percussion instruments to include a range of untuned percussion instruments and electronic instruments, including keyboards, sequencers etc., in an attempt to bridge the school/out-of-school, classical/pop divide.

At the heart of this approach was the aim of encouraging children to compose, improvise and perform music. As such, children were not excluded on the grounds of technical ability or familiarity and competence within stylistic conventions. In the same way that children could be singers and performers in the music classroom, they were now empowered as 'composers'. As Green (1988) states:

> ... skill and technique, rules and formula, anything to do with classical music in particular, [were] seen ... to be cold barriers to an authentic, self expressive liberated autonomous and essential music experience. (p. 156)

Whilst Green considers retrospectively that the idea of creative music was ideologically problematic, at the time 'creative music' was welcomed on the grounds of:

> ...self expression, self-fulfilment, self-insistence on the requirement of being creative in today's society; suggestions that creative activities are the royal road to really understanding music. (Swanwick, 1979 p. 81)

As Swanwick continues to point out there were sound general educational principles involved which took into account the relationship between *doing* and *knowing* music and the requirements of stimulating pupils' motivation and interest. It was from this basis that a model of music education was presented in the form of the

mnemonic *CLASP* (**Composition**, Literature Studies, **Audition**, Skill

Acquisition, **Performance**) which according to Reid (1979), formed 'the most

interesting systematic schema for practical music education'. It was this document

which informed Music 5-16 (HMSO, 1985) and the present format of the Music

National Curriculum into the two Attainment Targets: AT1 - Performing and

Composing and AT2 - Listening and Appraising. It is not the place to enter into a

discussion of the heated debate between the Music Working Group, music

educationalists and politicians which took place at that time. A full account of this

critical debate is given in 'Music Education and the National Curriculum'

(Swanwick, 1992).

It is worth dwelling momentarily on the problems encountered with the 'creative'

approach to music making in the classroom. Experimental music in schools reached

an ideological and practical impasse. Witkin (1976) was one of the first to signal the

symptoms:

> [some schools have] not developed means of ensuring that the pupils are
> reflexively in control of the medium as they embark upon a piece of creative
> work.   (p. 153).

From this developed a more critical approach advocating 'rigorous Expressivism':

> Once we recognise the 'objectivity' possible in acts of self-expression, the
> way is open to clarifying the expressionist theory of art in the context of a
> general theory of education and to providing art teachers with a sounder
> basis for practising the arts in schools. (Witkin in Ross, 1989 p. 31)

Within this literature resides the debate which is central to this research. It questions

what constitutes musical knowledge and the conceptual relationship between

expressive and structural elements. The debate is clearly articulated by Paynter

(1992):

> Too often we have ignored the deep structure [of music]...Before all else
> we have to find suitable ways of helping students to engage with the
> hierarchy of elements and with questions of continuity that work together to
> make a piece of music whole. (p. 21)

> Musical starting points have to be thought about and agreed; possibilities
> examined; ideas generated; structural procedures tried out; and preferred
> routes confirmed by frequent repetition, judging carefully, as the work
> proceeds, how specific features - such as melodies, rhythmic patterns

> combinations of instrumental or vocal colour and dynamic changes - might
> be extended, developed, transformed, or made to give way to fresh
> thoughts. (p. 21)

> Each piece must work by commending itself to us when we listen to it in its
> completed form. That is to say, the first people who must be satisfied with
> finished pieces of music are those who compose them. (p. 21)

More recently Paynter (1997), recommits his rationale for music education as music

as *idea* - not in the limited sense of motifs, melodies, rhythmic patterns etc., but as

the 'perception of a musical argument : the creative task itself, envisaged by the

composer as a potential sounding event' (p. 12). In this article Paynter forces us

back to revalue the *distinctiveness* of what it is to be able to function musically as a

human being. Whilst on the one hand, the article reads existentially in its argument

for musical thought being the means to search for 'truth' and personal verification,

on the other hand it also reads as an awesome reminder - especially in today's

political climate that:

> [Composition] .... is not simply a question of skills; it is also about reviving
> our ideal. Every aspect of music draws on creative intelligence, and teachers
> need to practice thinking compositionally as regularly as they practise an
> instrument or singing. It also implies a continuous interaction between
> composing/performing and all other thinking about, and talking about,
> music. Let us be absolutely clear, we are speaking here of something much
> more intellectually consequential than sense-impression/expression. The
> only realistic function for musical education is that it is active with the higher
> order functions of perception and with forms of finality which Kant declared
> were the foundations of the judgement of taste. Therefore, the challenge,
> across the entire age range of musical education, is for teachers to cultivate
> in themselves and their pupils the mastery of musical thinking and making.
> (Paynter, 1997 p. 19)

This provides a useful thread back to research on a theory of aesthetic development.

The inter-relationship between composition, audition and performance is central to

the holistic teaching of the music curriculum. The theoretical understanding lies in

the theories of how sounds are shaped into musical form and *the aesthetic decisions*

involved in the process.

Yet, how does this viewpoint sit within the present knowledge base of the Music

National Curriculum and how does this inform this particular research study? The

epistemology of knowledge as presented in the Music National Curriculum has been

far from clear. It can be argued that any attempt to reduce the knowledge map into

this format could only ever be simplistic and reductionist. In its present format, a programme of study could never fully represent an epistemological map which could do full justice to the 'complexity of the different layers of knowledge involved in music experience and the non-verbal nature of the activity' (Swanwick, 1988 p. 30).

The different types of knowledge are set out by Swanwick (1996). I shall introduce them briefly and guide the reader to the focus of the research. The first type involves *Procedural* knowledge and the acquisition of practical skills (e.g. how to go about manipulating sounds on an instrument). The second type is *Propositional* knowledge based on factual information (e.g. that Mussorgsky composed 'Pictures at an Exhibition'). The third type, *Acquaintance* knowledge, is informed by intuitions and impressions (where a piece was heard, the feel of a piece of music) and the fourth type, *Attitudinal* knowledge, resides in the area of evaluative judgement and statements of personal value (criteria and values which individuals bring to a piece of music to render it meaningful and valuable). It is the third and fourth types of knowledge which form the basis of investigation in this thesis.

As much of this knowledge is constructed through *individual* personal experience there have been a number of research studies which have investigated *individual differences*. For example the work of Kemp (1996, 1997) investigates individual responses to music in relation to personality types. This area is not developed in my research, however the research does draw on individual differences investigated within the field of psychology. Differential and dimensional studies with particular reference to age and gender are reviewed in the next chapter to inform the research methodology.

The focus of this study is how individuals make meaning from listening to music, and how their impressions (acquistional) and personal evaluations (attitudinal) are

expressed in language. I shall now proceed to locate this relationship within the context of *listening* and *appraising* in relation to the music curriculum.

The curriculum developments outlined above encompass the activities of Listening and Appraising within the Music National Curriculum (AT2) from Key Stages 1-3 and as part of GCSE and A level. There is a tangled historical web which leads us through *listening* and *appraising* as Music Appreciation, Ear Training and Aural Tests, Audition and Appraising. This is well documented, for example in Cox (1993). The literature shows that there has always been a lively debate concerning the *active* and *passive* aspects of listening to music and its role in education. I shall now draw out the key concerns within *listening* and *critical appraisal* which are relevant to my research in order to investigate listening to compositions; the qualities of aesthetic perception and its assessment within the context of the Music National Curriculum.

Even in the 1920s Somervell and Shaw, (Music Inspectors of the time) agreed that music appreciation should not be separated out from ear training, notation and song literature. In 1933 the Cambridgeshire Report on Teaching Music expressed the concern that:

> ...the great danger is that we may become a nation of mere listeners that cannot sing and play an instrument ... active and practical participation in music is essential. (Cox 1993, p. 354)

For many, music appreciation did become divorced from practical music making in schools, as we have documented. How many of us remember listening (or not listening) to classical records in the music lesson? As a student music teacher in the 1980's I always remember a set of text books in the stock cupboard, designed to help pupils 'listen' to music. The title had been defaced from 'Enjoying Music' to 'We are Not Enjoying Music'!

The ramifications of aural testing found their way into measurements of musical achievement. These were presented in the Aural Tests of the Associated Board and within many of the GCE O level programmes, A level Aural examinations and degree-level aural programmes. Whilst the traces of this approach still remain in tests of General Musicianship, 'Listening' at GCSE and Aural Perception at A level, research in this area has given rise to a growing awareness of the wider parameters of music perception, and how listening and its assessment can 'take into account the richness and personal qualities of our pupils' responsiveness and experience' (Gilbert now Mellor, 1990 p.189).

Swanwick's (1979) definition of the term set the ground work:

> Why use such a stuffy word? There comes a point where to talk of 'listening' will just not do. Listening is first on the list of priorities for *any* musical activity, not just hearing a record or attending to someone else in performance ..... It resembles a state of contemplation. I am not thinking of some rarefied situation in the concert hall. To come across a brass band in the street, a particular record in the disco or a snatch of tune on the radio, and to focus in on that to the virtual exclusion of all else is to become an auditor, an engaged listener. We become absorbed in and changed by the experience. (p. 43)

Priest (1989) sets the case for the place of listening within the context of aural and notation:

> We might depend on some prop or mental reference point which could be aided by notation, but need not be. If such imaging of sounds is considered to be an essential part of behaving like a musician, it should be integrated with other aspects. Then the aural experience would be seen and felt to be at the heart of musicianship, at the heart of performance, at the heart of composition and at the heart of listening, rather than the appendage it sometimes is when the following of notation is insisted on, and for many absorbs all their attention. (p. 209)

Paynter (1992) sets out listening within the context of music and creativity:

> The overriding importance to musical creativity of having a 'good ear' suggests that we shall derive deeper significance from the experience of music if we cultivate the skill of attentive listening. (p. 12)

Within the present Music National Curriculum the AT2 is worded 'Listening and Appraising'. This term 'Appraising' has been carefully defined to refer specifically to the *audience-listening* role as distinct from the *composing-listening* and

performing-listening roles. There is a literature in music education which sets out

the non-verbal aspects to appraising music. This sets out a theory of 'synaesthetic-

listening'. For example, Loane (1984) advocated a listening approach modelled on

an understanding of perception embodied in movement:

> When they make a dance in response to music, their act of musical insights
> is embodied in movement. (p. 30).

Kemp (1990) takes the issue further in a discussion of knowing musically through

whole body experience and advocates being able to image sound within the body:

> Into these images of the sounds themselves in terms of the qualities of pitch,
> duration, accent, intensity, envelope and timbre, become integrated so that
> their recall, particularly in imaginative activities (whether in composition,
> performance or listening) can be evoked through gesture. In this way a rich,
> colourful symbolic mental life is developed - a powerhouse of dynamic
> experience and inner life which is utilised in all creative enterprise.
>
> (p.225).

A study which investigated primary teachers' understanding of 'appraising' (Flynn

and Pratt, 1995), revealed that the term, new to many, was not only misunderstood

but widely interpreted. A summary of the three most common interpretations

included (i) appraisal as *assessment* i.e. the teacher finding out if pupils could carry

out a particular musical activity, (ii) appraising as the *acquisition of factual*

knowledge-based information about music and (iii) appraisal as *listening to music*

and talking about it. Flynn and Pratt's research continued to identify nine areas of

activity which teachers considered as possible ways of engaging children in

appraising. Without misrepresenting the detail of the research, these areas show a

complex inter-relationship. It is interesting to note that in the teachers' framework

for appraisal we see all the modes of listening theorised above, coming through

within their own working theory. These categories of appraisal can be broadly

categorised as *appraising as a musical activity* (investigating and exploring sounds,

choosing and selecting sounds, achieving an idea in music), *appraising as a non-*

verbal extra-musical activity (creating art, a poem, a piece of writing), *appraisal as*

kinaesthetic (moving to show, find out and respond to music), *appraisal as active*

listening (to listen for a particular purpose and to apply background information, to

use prior understanding of music), and *appraisal as a verbal response* (through questions, opinions, descriptions and statements of about music).

It is worth dwelling on the work of Flynn and Pratt (1995) to draw out particular considerations for my research. The teachers' final definition of appraisal is as follows:

(i)   Appraising music is an activity which is carried out by children in their composing, performing and listening

(ii)   It happens when they
       - listen purposefully to music
       - respond thoughtfully to music
       - think actively about music
       - make choices and evaluative judgements about music
       - use an accumulated experience and knowledge to do this
(iii) It is a way of coming to know and understand the processes involved in music and musical thinking

(p. 141)

Here the processes of appraisal significantly resonate with features described in the first section of this chapter relating to aesthetic development and qualities of aesthetic criticism - particularly in the statements 'making choices and judgements about music'. Furthermore, the research continues to set out four stages involved in the listening process (i) *listening* (ii) *hear, recognise, notice, tune into, focus on* (iii) *reflect, think, consider* (iv) *communicate, take action*. In *'reflecting and communicating'* about music children may be verbalising, answering a question, describing, giving an opinion, talking about the music, discussing, justifying what it could be used for, how it made us feel' (Flynn and Pratt, 1995 p. 140). Furthermore their research rarefies the recommendations set down by the Music Working Group (1992) for progression in music. The original version was (i) *respond to/recognise* (ii) *identify* (iii) *distinguish* (iv) *discriminate*. Flynn and Pratt's extended version shows a Vygotskian model of learning, spiralling between teacher directed activity ('putting in') to independent activity on the part of the child. The reciprocating process, Flynn suggests, moves on to the 'drawing out stage' and is presented in its form as follows:

Experience - Use - Apply - Respond/Recognise - Identify - Distinguish - Discriminate

At this stage the argument for a constructivist methodology can be made. In the first part of this chapter I examined the roots of aesthetic criticism, its relevance to aesthetic education and the distinctive features of informed aesthetic judgement to open up the argument that a language of aesthetic discourse may exist. The constructivist 'bottom-up' approach which Flynn and Pratt (1995) adopted offers a methodological design which is appropriate for this research. Whilst this is developed later in the writing, it is enough to signal at this stage that this methodology offers an investigative tool which acknowledges the pupils' part in constructing aesthetic meaning in their own music, and also offers a way of investigating teachers' perceptions of the pupils' music, although this discourse is *verbal.*

Loane (1991) shows how a constructivist methodology can be used to investigate children's musical creativity in composition. The research design uses a variety of ethnographic research techniques to include observation and progressive focusing for example. Relevant to this study are some of the focus notes which show the development of Loane's thinking in relation to what counts as musical value to the researcher, to other adults and to the children. Focus 4 (p. 58) suggests a schema of the types of evidence which Loane considers to contribute to an understanding of the relationship of musical value and musical intention. One such type of evidence he labels as *extrinsic* evidence. Within this section is listed (i) verbal descriptive accounts (or other notation), (ii) verbal evidence of involvement, (iii) body language evidence of communication, (iv) body evidence of involvement. Of particular relevance to my study is the analysis of the data giving examples from children talking during the process of composition, examples of children talking and making music with the researcher as participant observer, and the researcher's reflective comments after the final presentations of the children's compositions. Whilst Loane's initial research question set out to examine the language the children

used to give an account of the musical product and the process, the qualities of perception by teachers and children, and the qualities perceived by the teacher and other adults (p. 60), the overall findings focus more on recommendations arising from this type of methodology for further research. My study takes up the issues of investigating children's and teachers' perceptions of compositions within a constructivist framework. One key consideration which I also develop from Loane's work, is the relationship of the language of appraisal as one means to investigate musical value.

At this point it is worth noting that verbalising responses to music and the relationship of language and music is a contentious one, which is discussed in Chapter 2. The practical engagement of music, of making music *is itself a critical discourse* which involves musical judgements and decisions. Verbalising *about* music can neither be a substitute for the immediacy of musical experience, nor can it be expected to articulate its whole meaning.

However, language plays a significant role within understanding. This is quite a separate literature but one from which I draw to make the following relevant points for this research. Aspin (1987) states that language has enabled us:

> ... to construct the world and to render it comprehensible and controllable. It is, taken in this way, the rules and conventions governing communication in language that stand as major perceptions of the world, that constitute their intersubjective agreements, the objective reality of the world we share. The languages we speak are thus the guarantees of any sort of objectivity in the world of interpersonal communication, for they enable us to objectify our experience to it, to categorise it according to some sort of scheme and thus to try and reduce it to some sort of object capable of being appraised and understood. (p. 36)

Taking the argument further, language has also played a major part in musical critical analysis. Swanwick (1996) suggests that the development of musical analysis distinguishes institutionalised music education from music encountered in the street or in the media. Music criticism involves critical analysis which is essentially about the internal functioning of a musical object. In so far as music

critical analysis can be undertaken within the context of appraising, it relies both on

practical discovery as well as words:

> Verbal discourse is obviously important in any educational transaction and
> assists in the formations of critical judgement in music. (p. 3).

As Glover (1990) in describing how PGCE students develop these skills states:

> They are asked to talk about music made in this or other 'live' compositional
> or performance situations, to talk with each other and to talk with children
> and to reflect on and categorise language use towards developing a critical
> language. (p. 259)

This argument can be developed to say that the development of a critical language

assists in providing assessment evidence for musical understanding. This area is

discussed in the light of the results in the final chapter.

To summarise, in this section I have set out the field of research within curriculum

developments in music, namely within the area of composition establishing its

knowledge base in which listening plays a central part. The research draws from

examples which investigate acquisitional knowledge and attitudinal knowledge

within the area of appraising music. In doing this the broader implications of

appraisal have been evaluated within the context of the Music National Curriculum.

Within this context I arrive at the central issue for investigation :

- how pupils' verbal responses can communicate musical understanding;

- how teachers' understanding of pupils' compositions is revealed
  through the language they use.

1.3   Language in Music Education and the Implications for Assessment

The third and final part of this chapter focuses on the role of *critical language*

within *aesthetic development and assessment* . This is the context in which I

investigate teachers' and pupils' perceptions of music composition and the aesthetic dimensions of understanding revealed in their language of appraisal.

Earlier versions of the draft orders of the Music National Curriculum showed the concept of progression within a series of 10 levels (1991). The Welsh proposals included a discrete Attainment Target 'Appraising'. Progression statements include for example, 'listening' at level 1 to 'listening attentively' at level 2; from 'recognising and responding' generally at level 1, to 'recognising characteristics and distinguishing between musical elements' by level 3. The range of levels within Key Stage 2 (levels 2-5) included statements of progression which suggested pupils should 'distinguish with increasing accuracy' and 'use simple terms to justify preferences' (level 4) across an 'increasing variety of musical styles' (level 5). Within the range of levels (levels 3-7) extended at Key Stage 3, statements of progression included the expectations that pupils should 'discriminate within elements and across a wider range of music' (level 6) and to include 'relating to music notations structures and stylistic conventions' (level 7). By Key Stage 4 (suggested levels 4-10), the progression is referred to again in terms of the breadth of listening 'across listening material' as well as 'making critical appraisals and analyses' (level 8&9). By level 10 the expectations were that pupils would be able to 'distinguish characteristics of a range of complex pieces of music and demonstrate the ability to make fine judgements from a wide range of styles, periods and genres' (DES, 1991 p.44). In this document the accompanying examples suggested that pupils should use language to *talk about* the elements, *talk about* the historical, social and cultural contexts, *discuss* the appropriateness and effectiveness of arrangements, *talk about* the structure and methods of performance referring to authenticity and *write* informed reviews. The assessment guidelines suggested that pupils should also be involved in *self assessment* (DES, 1991, Section 9.7 p. 45).

In my own response to the document issued above (Mellor, 1991) I devised a series

of categories as a framework from which to analyse statements of progression. The

framework was adapted from the APU (1983) as Knowledge of Contexts:

Genres/Styles, Resources, Audience:, Facilitating Skills: *Processes/Methodology,*

Modes of Presentation, Technical Skills, Artistic Appraisals: *Musical Elements,*

Symbolic Representation, Personal Values: *Personal Interpretation and Evaluative*

Judgements. I concluded that the way the statements of attainment were presented

made little coherent sense of progression. Whilst the document claimed that 'the

criteria employed in assessment should be clearly understood, accepted as

reasonable and capable of unambiguous interpretation in operation' the statements

of progression, as illustrated above, did little to inform how the criteria would be

established and how assessment would be implemented. At the time of writing I

also shared a similar view with colleagues in teacher training and within the teaching

profession, that the technical language of the report, which had been compiled by

specialists, presented a problem for non-specialist teachers of music:

> It is not so much the inclusion of language that is the problem, it is the lack
> of musical understanding ..... Indeed it is a reference book as well as a
> starting point for curriculum development. Why attempt to define the musical
> terms and then introduce them in the document in an apparently illogical
> format, which masks rather than elucidates their meaning? Surely this would
> have been an ideal opportunity to provide a document which is also sound in
> its ability to inform and educate its audience? The readership of this
> document might not be music specialists but they are education specialists. It
> can be assumed that they recognise material which is an example of good
> educational practice and I propose that many of the frustrated responses to
> this document come not so much from an unwillingness to learn,
> accommodate and implement the new Music National Curriculum, but rather
> from the premise that its presentation is unnecessarily unhelpful to the
> acquisition of this knowledge.   (Mellor, 1991 p. 4)

I concluded that at this stage the working party could have arrived at a better

linguistic and structural format for the following reason:

> Surely if we attend to matters of clarity and precision without being
> prescriptive - which I'm sure is possible given that the conceptual
> framework is in place - we will inspire confidence and ensure the effective
> implementation of the report.   (Mellor, 1991 p. 12)

The issue of confidence in teaching is an important one for generalist teachers. As Mills (1991) points out, the idea of generalist music teaching is not a new one, although, generalists often enter the profession low in confidence to teach music. Mills (1989) showed that music was the subject which most worried a group of generalist student teachers. Furthermore, her results revealed that music curriculum leaders in primary schools tend to operate as specialists and have not learned to act as consultants to generalist non-specialist teachers of music. I shall resume this issue of generalist/specialist teaching as another central theme within the study at a later stage.

From the original implementation of the Music National Curriculum, to subsequent revisions in 1992, followed by the Dearing revision (1995) and the recent simplification (1998) it seems that we may not have come much further. The expectations at each of the three Key Stages have filtered down to a reduced version. This is presented in the form of a sequential progression through the *elements* of music (*pitch, duration, dynamics, tempo, timbre, texture and structure*). Thus :

Key Stage 1	pupils should be 'recognising the musical elements'
Key Stage 2	pupils should be 'distinguishing the musical elements'
Key Stage 3	pupils should be 'discriminating within and between the musical elements'

In 'Teaching Music in the National Curriculum' Pratt and Stephens (1995) presented this model in the form of a table to indicate progression *within* each element. According to this, the *implicit* working theory suggests that progression in the perception of pitch follows that : pupils would first talk about *loud, quiet and silence* before going on to talk about *gradating levels of volume*, before progressing to recognise *subtle differences in volume*. This implies that musical conceptual understanding is developed though an increasing discriminative vocabulary based

on the principle of quantitative addition. As Swanwick (1996) argues, most of the Key Stage statements in the Music National Curriculum document are essentially quantitative in character rather than qualitative; he urges 'we need to have criterion statements to pick up these qualitative shifts' (p. 34).

Several research projects have tried to map out these *qualitative* shifts and have influenced my thinking. Swanwick and Tillman's model, known as the sequence of musical development' was adapted in Swanwick (1986) to suggest a basis for establishing criteria for assessing composition and more recently in Swanwick (1996) for assessing performance. It is referred to in more detail in Chapter 2 in a discussion of cognition and musical development.

Other researchers such as Flynn and Pratt (1995) use a 'bottom-up' approach. This type of approach uses a methodology which seeks to make explicit the *criteria* which the teachers identified in making such qualitative shifts. Other examples which use this type of approach include 'The Arts Propel Project' (Wolf, 1988) under the auspices of the Harvard Project Zero. This project initiated arts assessment procedures for the secondary age range. The way in which the pupils appraised their work included portfolio documentaries in which they were invited to comment both on the quality of the *process* and *product.* A final stage included *reflective* interviews where the teachers could evaluate how much insight the pupils had in their own work.

The idea of reflective conversation is taken up by Ross and Mitchell (1993a, 1993b) modelled on the work of Rom Harre. In their research, the conversations make explicit the subjective experience of their working process previously regarded as inaccessible and unassessable by the teacher:

> We have sought to offer a contrary view; to focus upon process rather than product, upon pupil understanding rather than product impact, to promote the pupil as the principal assessor, and talk as a medium not only of aesthetic communication but of artistic insight and judgement. (1993b, p. 99)

The DELTA Project (Development of Learning and Teaching in the Arts),

Hargreaves, Galton and Robinson (1996) devised a methodology which claimed to

make explicit the implicit criteria which teachers used to make judgements about

children's products. The findings for music made ground in developing a *language*

of assessment. In Chapters 2 and 3 I show how the rating scale which was

developed in Hargreaves' research is adapted for use within my own methodology.

I shall now summarise the theories from this literature review which are important

to the overall research and the research question. Following an evaluation of

theories of aesthetic perception (Beardsley, 1982; Smith, 1989) my research

position commits to restoring aesthetic judgement in music education. The idea that

the aesthetic dimension within arts education is (a) developmental and (b) educable

follows both the generic model (Reid, 1969; Ross, 1978, 1984; Abbs, 1987,

1989), and the domain specific model (Gardner, 1983; Swanwick, 1979, 1988,

1994, 1996). This is important for the research question as it defines the fieldwork

in the domain of listening. That listening is at the heart of musicianship follows

Swanwick (1979), Priest (1989) and Paynter (1992). This is important for placing

the research in the context of listening and appraising compositions within the music

curriculum in schools. The theory that aesthetic experience is grounded in everyday

experience (Willis, 1990), and that experience is culturally situated and

communicated (Bruner, 1996), also informs the decision to situate the fieldwork in

the context of teaching and learning in the school environment.

The idea that cognition is inclusive of emotions and feelings within the complex

process of aesthetic understanding, following Goodman (1984), Gardner (1983,

1994), the APU: Aesthetic Development (1983), Swanwick (1996) and Gilbert

/now Mellor (1990), means that the research design needs to 'access' a wide range

of listening responses. Aspin (1987), Loane (1991) and Flynn and Pratt (1995) set

out the case for examining verbal evidence as one way to investigate listeners'

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aesthetic judgements, beliefs and values. The research takes up the theory that embedded in language are the criteria by which aesthetic judgements can be made explicit (Ross and Mitchell, 1993a; Hargreaves, Galton and Robinson, 1996). This is important for this research question which investigates how pupils' and teachers' musical understanding is revealed through listening and the language of appraisal. Such theories set the context for the empirical work to investigate the relationship between aesthetic perception and language with the aim of informing pedagogy and assessment in the music curriculum.

Therefore, in this research I propose to make explicit the *criteria* used by both pupils and teachers in the perception of pupils' music compositions. My contention is that language in music may be able to be used in order to build a vocabulary which can support a meta-language. If this is the case, then the use of language in a *reflective* way may be the process whereby *qualitative* shifts are identified by the pupils themselves.

My research questions are:

• how do teachers and pupils use language to respond to pupils' compositions?

• what role does language play in aesthetic development in music perception?

• how might this inform specialist and generalist teachers' working theory and practice?

CHAPTER 2

AESTHETIC PERCEPTION: COGNITION AND LISTENING DIFFERENCES

2.1 Aesthetic Perception and Cognition

This chapter investigates the relationship between aesthetic perception and cognition and how meaning is formed when we listen to a piece of music. The objective is to set out links between the educational background of the study described in chapter 1 to a psychological perspective. I develop the argument in three progressively focusing sections. The first section (2.1) Aesthetic Perception and Cognition sets out the broad theoretical approaches to the question and discusses the relevance of cognitive theories of child development to the development of aesthetic and musical understanding. The second section (2.2) Listening Styles and Strategies, locates my research within the field of the psychology of perception and experimental aesthetics. I examine aesthetic dimensions of the listening response revealed in psychometric studies and the differential literature with respect to age, analytic-global styles, training - experts and novices, personality and learning style, hemisphere and neurological studies and gender - biological and social. The final section (2.3) Dimensional Studies, examines the appropriateness of multi-dimensional scaling techniques to investigate listening responses in my research.

2.1.1 Aesthetic Perception and Cognitive Development

From a psychological point of view, how do we listen to and derive meaning from music? Theorists approach this question in two ways. The first approach proposes that musical sounds have *absolute* meaning. In other words, our listening

responses are aroused by the musical events themselves and have no extra-musical associations. Meaning is embodied in the music itself. This view is expressed as *objective* by Hanslick (1957) and Schoen (1940), and relates closely to theories of aesthetic education discussed in Chapter 1. The listener derives aesthetic value in the music through 'the voluntary and pure act of contemplation which alone is the true artistic method of listening' (Hanslick, 1957 p.97). Meaning is derived by contemplating the objective properties of the composition itself and as such, is prepared for the 'aesthetic appreciation of musical beauty' (Hanslick, 1957 p. 99). In a similar way Serafine (1988) expresses Meyer's (1956) *formalist* approach as 'music's emotional punches are packed inside the music itself' (p. 14). In other words, musical meaning is derived from understanding the formal structure of the music. As the listener experiences the music a set of 'musical' expectations are established through the composer's manipulation of for example, harmonic rhythm, tension and closure. It is when these intrinsic musical expectations are satisfied, disturbed or interrupted, for example, that emotions are aroused. This idea is also expanded by Green (1996) as *inherent musical meaning:*

> Individual temporal musical experiences arise directly from musical material that inhere in music and create meanings between themselves, for consciousness, through time. Both the materials that create meanings, and the materials that are being meant, ultimately indistinguishable one from another as a hierarchy of processes and forms, have existence, therefore, as the parameters experience of what I will call inherent musical meaning.
> (p. 25)

Research which has reflected this approach to listening includes the work of Cooke (1959), who tried to demonstrate that within the Western tradition there was an agreed 'language of music' which espoused the use of certain intervallic relations to denote particular emotions. For example, a major third was associated with joy, a minor third with sadness, an augmented fourth with uncertainty. The theory is well critiqued (see Storr, 1992 p. 73). Within the same *absolute* tradition Sloboda (1985) builds a clear case for understanding the meaning of music through the linguistic framework of phonology, syntax and semantics. Music phonology is equated to the inherent musical properties along particular dimensions e.g.

frequency and pitch, scale, duration, and metre. Sloboda argues the case that one step in the unravelling of meaning in music is to be able to perceive these categories by extracting and storing this type of categorical information through the use of verbal labels. Sloboda equates musical syntax to the psychological 'processes of musical generation' e.g. harmony, tonality, melody, pattern and structure. Much research in this area works on the premise that we store the rules for constructing sentences in addition to storing the sentences themselves. The work of Sundberg and Lindblom (1976) exemplifies this. A set of Swedish nursery rhymes by Tegner were analysed in terms of their harmony, tonality, melody, pattern and structure. This information was used to generate a similar set of tunes in the style of Tegner. Both the authentic and the generated versions of the nursery tunes were presented to the subjects to see if they could spot the difference. The work of Lerdahl and Jackendoff (1982-3) produced a set of 'grammatical rules' for analysing a given musical sequence taking into account the structural prominence of the various musical elements. One of the central themes of this viewpoint is the representation of music in terms of its 'surface' and its 'deep' structure which derives from the work of the linguist Chomsky (1957,1965,1968) and the musicologist Schenker (1935). As far as the listener's perception is concerned:

> Melody thus represents the level of greatest differentiation in music, the level at which our evaluative and critical faculties are most immediately engaged. It is the aspect of music which is nearest to the 'surface' and that which, for most listeners, most immediately characterises the music.
>
> (Sloboda, 1985 p. 52)

The second approach proposes that musical sounds have *referential* meaning. In other words, the listener makes sense of music by taking into account reference to extra-musical events which may reside in the contextual association of the sounds. This has also been referred to as *extragenic* meaning by Coker (1972) and *contextualist* meaning by Schwardon (1967). This approach acknowledges the effect of the listening environment, the social dimension of the listening experience and cultural delineations. Here the fields of sociology, social psychology and music psychology overlap. As Green states (1996):

Images, associations, memories, queries, problems and beliefs inspired in us by music are musical meanings that, rather than inhering in musical materials and pointing only to themselves, point outwards from music and towards its role as a social product, thus giving it meaning as such for us.

(p. 28)

She continues to describe the difference between delineated meanings which are both conventional and individual. An example might be Queen's version of 'Barcelona' which for some will delineate the Olympic Games (1992). For some it may also hold private individual delineations; emotions, associations, memories of a particular event. She claims that 'although some delineated meanings maintain themselves only by virtue of collective definition, delineated meaning is, to individuals, whatever they make it' (Green, 1996 p. 31). Hargreaves and North (1997) refer to the importance of considering a social psychological approach which considers the everyday situation in which listening to music occurs; 'Any attempt to provide a comprehensive explanation of music listening behaviour must now also account for the effects of the everyday circumstances in which this occurs' (p. 309). That certain pieces of music are expressive of certain emotions is generally agreed. The sale of 'mood music' and 'relaxation' tapes is just one recent example of the commercial capitalisation of this recognised fact. Recent research in this area examines the use of background music to affect shopping behaviour (Milliman 1982, North and Hargreaves, 1997), aerobic and relaxation exercise (North and Hargreaves, 1996b) and dining responses (North and Hargreaves, 1996a, 1996c).

2.1.2 Cognitive - Developmental Theories

Whilst the *absolute* and *referential* theories approach the question from different positions, what becomes clear is the role of the 'musical event as symbol' in the formalist tradition and the 'contextualised music experience as symbol' in delineated meaning. In my research I follow a referential line of argument which takes into account the broader dimensions of the listener's experience. It is clear that listening to music is a symbolic act. I shall now examine some perspectives from cognitive

development and its application to music psychology to investigate how the listening experience develops through symbolic functioning and its relevance to my research.

The main thrust of this argument is how cognitive theories identify the place of symbolic thinking within child development, whether this is acquired through successive stage mastery, is generic or domain specific and how it is mediated through socialisation. The general field of cognitive development has been well documented in Lerner (1976) and Thomas (1985), and the main ideas discussed with particular reference to the developmental psychology of music in Hargreaves (1986), and Durkin (1982). The main protagonists of *stage* theory include the theorists Piaget and Kohlberg. They propose that an individual passes through successive *stages* of cognitive mastery and that effective learning relates to the individual's readiness to learn. Educational experiences need to be suitably matched to children's level of understanding. The work of Piaget has been thoroughly documented in the literature (e.g. Piaget, 1951; Piaget and Inhelder, 1966; Flavell, 1963; Gardner, 1973) and many useful commentaries summarise the contemporary relevance of the theory for development psychology (e.g. Bryant, 1984; Wood, 1988; Davies, 1991). Central to Piaget's theory is the development towards increasingly abstract and logical forms of thinking which are based on an increasing accumulation of experiences derived from actions or 'operations' performed on the environment. I now consider the application of Piaget's theory of conservation to investigate symbol functioning in music development.

Conservation is the term employed by Piaget to mark the transition from the pre-operational to the concrete operational stage, which occurs at about seven years of age. The pre-operational stage is characterised by symbolic development, including for example symbolic play and drawing. The shift to the concrete operational stage is characterised by an understanding that certain dimensions of the physical world

remain invariant, in spite of physical manipulations and that a series of classifications are possible as long as the basic criteria or configuration of the operation remains the same. For example, a child realises that a ball of clay, a container of water or a pile of bricks piled in different ways does not vary in amount regardless of the shape of the clay, the size of the container or the shape of the brick pile. Such a realisation is possible because the child becomes mentally able to transform the material and reverse the mental process. By the same concrete operational process abstract calculations such as multiplication and subtraction can be performed which rely on the principles of ordering and grouping in different ways.

Key research in the psychology of music which draws on conservation tasks was undertaken by Pflederer (1963). Pflederer (1964) revealed that 8-year old children were capable of isolating changes in metre, tone and rhythm in the performance of two versions of a melody. In the same sense they were recognised as the same as well as different. In contrast the 5 year old children of the pre-operational stage could not appreciate or 'conserve' the similarities. A formalised version of the theory is presented in Pflederer (1967) and Pflederer and Sechrest (1968), reproduced in Hargreaves (1986), which delineates three stages of responses : non-conservation, intermediate and conservation. This work has been reviewed by Serafine (1980) and Tunks (1980) and has been used as a basis for further research by Crowther, Durkin, Shire and Hargreaves (1986) and Zikmund and Nierman (1992).

Clearly, the results of the work in this field show many interesting parallels which embrace the Piagetian overview of cognitive development. Yet the research also raises several fundamental issues. The first issue concerns the nature of the musical task presented to the children. In the original Piagetian operational tasks the children could see the objects of transformation (e.g. clay, water, bricks) and could observe

the process of reversibility. It is debatable whether melody can equate to these properties. That is to say, by its very temporal nature, versions of a melodic sequence cannot be transformed in an observable way, they can only be heard one after another. Likewise, they cannot be reversed to assume their original form. It follows that the melodies presented in the tasks are therefore essentially different and any measure of similarity/ difference might be misleading. Second, the processes involved in 'music conservation' may be more aligned with memory and melodic recognition. This criticism is confirmed by Hargreaves, Castell and Crowther (1986) which showed that although 'conservation' type responses were more frequent in older children, with familiar tunes, the results were accounted for by memory recognition skills. For unfamiliar tunes, the 'conservation type' responses were accounted for by global observations of contour rather than specific intervallic discriminations. Nevertheless, the findings in the Pflederer and Sechrest study (1968) show that the ability of the 5- year olds to score well on a control test where the original melody was replicated to form a 'same' pairing, could be attributed to something more than aural memory. Considerations of this type will be discussed with reference to more domain specific developments later in this chapter.

The work of Gardner provides an alternative explanation of the place of symbolic development within cognitive theory. The literature is well documented (Gardner 1973, 1985, 1994 and Hargreaves, 1986) and is of particular relevance to artistic development. The fundamental difference is that Gardner claims that by the age of seven, children have the ability to fully participate as observer, composer and performer in the artistic process. The theory follows that artistic developments are facilitated within symbol systems rather than being a product of Piagetian logical operations. It would appear, according to Gardner, that aesthetic development continues through further explorations, the acquisition of notational systems integral to socialisation, skill developments and the ability to reflect and evaluate the work.

Such developments, Gardner would argue, are not qualitatively any more advanced than those established in the 'period of symbol use'.

Gardner's theory is not presented as a hierarchical stage theory but more as a *discontinuous pattern* characterised by 'waves' and 'channels' of symbolisation. Instead of the processes of assimilation, accommodation, conservation and seriation which characterise the work of Piaget, Gardner's theory revolves round the increasing synthesis between the processes of *making, perceiving* and *feeling*. He divides the symbol system into expressive symbols (i.e. those with no precise reference to other aspects of experience) and denotational symbols (i.e. symbols with precise referential meaning). This theory therefore has distinct relevance in identifying symbolic operations within the respective formalist and referential approaches to listening to music. Furthermore, Gardner states that in different activities the symbol systems operate either exclusively in one system or the other or together. This shows how listening approaches function on their own or interdependently depending on the given listening situation, the listeners' predisposition to it and expectations of it. Mature cognition is therefore characterised by the increasing interaction of these systems to form an increasingly integrated whole. It is a theory which not only takes into account the cognitive position within development, but also acknowledges the role of the affective. In general terms this theory is significant in helping us to understand what type of cognitive map the listener brings to the experience of listening to music to extrapolate its meaning.

In more specific terms the transition between what Gardner calls the second and third waves of symbolisation is of relevance for my research. In the second wave, analogical or topological mapping occurs in which the symbols bear an analogic resemblance to their referents. One example might be when a child piles several blocks on top of each other and calls it a snowman. The successive 'third' wave is

characterised more by 'digital mapping', that is, a greater concern with getting quantities right in for example, the characters in a story, the pitches in a song. Gardner (1985) states that this advance has a 'cost':

> ... rather than capturing the feelings and mood of a particular form of behaviour (the sense of a person running in a dance or in a drawing), the child may be so intent on depicting the movement exactly correctly that the crucial aspects of tone and nuance may be lost. After all, sometimes the qualities of a referent prove more important to capture than the quantities (particularly for aesthetic purposes). (p. 310)

Gardner's theory also makes reference to 'channels' of symbolisation. As such these channels represent 'second-order' symbol systems i.e. systems which are *notational*. Such notational systems include written language, maps and music notation which 'record' or 'capture' symbolic form. If the development which occurs in the earlier waves is characteristically endogenous, i.e. formed *within* the individual, then channels of symbolisation are formed from *outside*. In other words, we are talking about the coding systems which the child learns as a process of enculturation. Here is another point of interest in the research. It may be that there is a 'price to pay' as the child acquires the symbol systems of his/her culture: the price is that of neglecting earlier symbolic potentials which were characteristically freer, more idiosyncratic and imaginative.

It is at this point that 'the fun is over' (Gardner, 1985, p. 312) as the child strives to become ever more 'notational'. To a certain extent this might account for the child's increasing reluctance to experiment over an increasing desire to master and conform to the principal notational systems of the culture. It is recognised that this 'wave' may constitute a necessary step in symbolic development and that one must seem to go through it before being able to create new meanings. Yet, ironically this is where the weight of our current educational institutions 'tip the scales' with an over emphasis on literacy and numeracy; the standard notational systems of our culture. The current political drive reinforces this approach and drives teaching and values in this way. As it does so, it is possible that these earlier valuable,

characteristically freer and idiosyncratic ways of making symbolic meaning, often

through artistic activity, are deemed less important and are consequently subjugated.

Within my research this may have important implications for aesthetic development :

not only in understanding how a listener articulates his/ her response to music and

how the response is received by teachers, but also, how we need to value this

aesthetic dimension in education as intrinsic to intellectual development.

If Piaget's and Gardner's theories of cognitive development represent the long

standing views as to whether development is continuous or discontinuous then

Werner's *orthogenetic principle* (e.g. Werner 1961, Werner and Kaplan, 1963)

accommodates both ideas. The theory has been most influential in developmental

psychology with some application to musical development. The twin processes of

differentiation and *integration* underpin the theory. In the early stages of development

a child's perception of the world can be seen as global, diffuse and undifferentiated. In

other words, everything that has a beak and feathers will be understood as 'bird'. As

the child gets older then differentiation takes place. That is to say, the child can divide

the group 'bird' into various subgroups, for example, birds that live in the garden, on

ponds, in the Antarctic etc. The differentiation becomes integrated as the child learns to

'set' birds within the hierarchy of birds as well as seeing them differently from different

'sets' of animals or plants for example. Thus, the overall process of cognition is

continuous yet is marked by discontinuities where new relationships are made. The

musical research in this field was applied to studies of children's spontaneous

melodies (Werner, 1961). The younger children's melodies were characterised by

unrelated sequences and categorised as more diffuse and global. The older

children's melodies showed phrases which were 'integrated' into melodic patterns

through the use of a tonal centre. In a discussion of Brehmer's work with children's

vocal representations of piano melodies Werner concludes that the younger

children's 'more primitive and less articulated organisation' is demonstrated in their

'expression of the quality-of -the-whole' for example. The perception of the

'quality-of-the-whole', 'global' and, 'undifferentiated' qualities could be likened to Gardner's 'first wave of symbolisation'. Yet, significantly Werner's theory expounds an ever increasing network of experiences which are continually being differentiated and integrated and which can accommodate subtle domain specific developments. For the purposes of this research I will examine differentiation and integration in relation to children's listening responses.

A further approach to perceptual-cognitive development draws from *information-processing theory* and as such places internalised rules, operations and strategies and the effects of these processes on behaviour central to its claim. The key concepts of this theory are summarised as such:

> Various processes are carried out between the *input* to the system (usually a stimulus) and the *output* from it (e.g. a behavioural response, long term memory trace, or decision). These include the encoding of information into a form which can be dealt with by the system, which might involve filtering, or selective attention to different features of the input; its transformation into some kind of mental representation; its storage in different kinds of memory system; and its comparison with information already held in the memory.
>
> (Hargreaves, 1986 p. 16)

Cognitive development in these terms is seen as the acquisition of particular cognitive skills and in the capacity and rate of processing. Its application for the psychology of music as been in the research of *generative processes*. Studies in this area have concentrated on psychophysical and psychoacoustical aspects of tone, intervals and scales, aspects of pitch and melodic perception and memory and internal representations of structure for example. Whereas some studies have been quite atomist in their approach, i.e. focusing on a singular musical parameter such as pitch for example, (Deutsch, 1982), others take into account generative processes in the context of performance, composition and improvisation (e.g. see Gabrielsson, Sundberg, Rasch, Pressing, Sagi and Vitanyi, in Sloboda, 1988). This field seems increasingly open to studying developmental paths with a focus on children's understanding of music: see for example the studies of Dowling (1982) and Davidson and Welsh (1988) on tonal structure, and Davidson and Scripp

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(1988) on composition. The relevance for this research lends itself to the investigation of listening strategies to determine how listeners extract relevant pattern invariants from the complex information contained within a structure, for example a melody. Pattern invariants may include pitch relations, duration, and tonal structures for example. Implicit in this approach is an understanding that music is made up of a large number of small fragments which are structurally organised. The study of how individuals chain together discrete elements in music gives us a better understanding of how music is perceived as a whole.

2.1.3 Listening and Aesthetics

Much has been written on the relationship between listening and aesthetics. For example, Cook (1990) does not doubt the validity of such research as a means of gaining information of non-verbal auditory stimuli. However, he regards the process more of a window into 'musicological listening' rather than 'musical listening'. The distinction between these two types is defined by Cook as follows:

> If by 'musical listening' we mean listening to music for purposes of direct aesthetic gratification, then we can use the term 'musicological listening' to refer to any type of listening to music whose purpose is the establishment of facts or the formulation of theories. (Cook, 1990 p. 152)

This introduces us to the notion of what it might mean to listen to a piece of music in an aesthetic way? Is the ability to separate out elements for identification necessarily a prerequisite of aesthetic experience? The eminent sociologist Adorno (1973) suggests that professional technical knowledge is a pre-requisite for the aesthetic perception of any composition. Schenker (1935) rates listening as a higher order mental activity which acknowledges the combination of both sensory perception with a rational understanding based on some kind of knowledge of musical structure. Dalhaus (1982) equates 'adequate music listening' with the ability to read music and the ability to make aesthetic judgements dependent on sufficient factual knowledge. This represents a view of listening as a specialist process. It implies that for the average listener 'aesthetic appreciation' is not available without the necessary tools of music reading and analysis.

Indeed it is arguable that those 'specialist-listeners' who have the ability to separate

out musical events as they listen, with or without the tools of music notation, may

not choose to exercise this analytical ability unless specifically asked to do so.

Geringer and Nelson (1980) found that in higher levels of musical education there

was very little difference in the quality of observations on a piece of music between

students who answered questions about the music to those who just listened.

Indeed Gould (1987, p.42) believed that listeners who knew nothing of the music

in technical terms usually had an 'intuitive edge' over the trained musicians.

Clearly, this has implications for the effect of training on aesthetic perception and of

our view of the listener as expert or the listener as novice (discussed in section 2.2).

Indeed this opens up the area for my research as there is no evidence to suggest that

the *aesthetic preference* of the novice is necessarily 'inferior' to that of the expert.

The cognitive processes outlined above provide the theoretical basis for an

understanding of how aesthetic development might be explained in terms of a

Piagetian general stage-theory approach across the arts, that which Gardner calls

'the general symbolic view' and a more domain specific view of development, that

which Gardner calls the 'medium specific position'(Gardner, 1985). The next part

of the chapter discusses the relevance of several studies which map both generic and

domain theories of aesthetic development with the objective of discerning how the

psychological perspective informs the educational objectives of my research.

Parsons (1976) and Parsons, Johnstone and Durham (1978) propose four

developmental stages of aesthetic development which relate to visual art only. Of

interest to my thesis is the set of parameters which they identify (e.g. semblance,

subject matter, feelings, colour, artistic properties and aesthetic judgements) and

the relationship between these parameters within each stage. One of the significant

findings of this research is that the first stage (between the ages of four to eight

years) is characterised by egocentricity. Parsons suggests preference determines aesthetic judgement, for example 'I like it, therefore it is good'. Equally, the child cannot differentiate between his/her views and the views of others. In the second stage (between the age eight to adolescence) convention and conformity to 'public rules' determines aesthetic preference. By 'public rules' Parsons is referring to rules of form and rules of subject matter. In the third stage (beginning at the onset of adolescence) aesthetic preferences are determined by formal criteria and qualities of style. Essentially the judgements are only relative in that they still refer to the artist's intentions and are based on subjective preference. Only in the fourth stage is aesthetic perception 'objective,' i.e. qualities of the object are judged independently of the perceiver's personal view. This theory is very much in the stage theory tradition where one stage is seen as a prerequisite for the next to develop.

Ross's (1984) model of aesthetic development identifies three 'levels of operation' which refer to a set of behavioural characteristics showing how the significance of an individual's relationship with an artistic medium develops. The three levels of operation are presented as the 'surface' or 'pre-aesthetic level', 'quality' and 'tacit' levels. The 'surface' or 'pre-aesthetic level' denotes a preoccupation with pragmatic criteria. The second level is the 'quality' level where the individual begins to show value for what is created. The third or 'tacit' level is ascribed as aesthetic maturity where the subject is able to achieve disinterested interest. Clearly there is a parallel between this level and Parsons' fourth 'objective' stage and again sets a series of stages which are valued as qualitatively more advanced.

Gardner's account of aesthetic development (1973a) has two broad stages ; pre-symbolic period (first year of life) and the period of symbol use (between ages two and seven). As stated in the previous section it is the process of enculturation in the second stage where the 'codes' of the culture are learned and where the child is recognised as being fully participant in the artistic process. Further developments

(from the age of eight onwards) are characterised by further skill developments and a greater critical facility and self conscious awareness, but are not viewed as qualitatively more advanced. This theory acknowledges the social and cultural role within aesthetic development.

Gardner's work forms the basis of the Project Zero group, based at Harvard University, which has inspired a range of subsequent studies across the arts. Gardner, Winner and Kircher (1975) undertook a study in which children between the ages of four and sixteen were interviewed with respect to a poem, a picture or a piece of music on several parameters e.g. source, production, medium, style, formal properties. The findings were collated into three groups approximating to age on the basis of the *types of responses* given. The 4-7 year olds produced 'immature' aesthetic responses characterised by pragmatic concerns. The 8-12 year olds produced 'transitional' responses i.e. some responses of the 'immature' group, some responses reflecting their concern with realism and fairness and some responses characterised by 'mature' responses. The 'mature' responses' given by the 14-16 year olds revealed a knowledge of stylistic differences, properties of the specific arts media and an insight into some of the compositional processes.

In another study by the Project Zero group Winner et al. (1986) investigated whether perceptual skills used in the arts generalise across art forms and aesthetic properties or whether they are art form and/or property specific. The aesthetic properties were defined as repleteness, expression and composition. In the case of the music tasks children were required to (i) select the unaltered one of two versions of a specified melody when one of the pairings was varied in articulation, timbre and dynamics (repleteness) , (ii) match one of two excerpts of musical pieces to the mood of a specific piece which could be 'happy', 'sad', 'excited' or 'calm' (expression); (iii) select the correct one of two endings for a specified incomplete

melody (composition). The results of the research were interpreted to show that aesthetic perception develops property by property and domain by domain.

What emerges is the view that aesthetic development is not stage based as in the monolithic universal Piagetian sense. Rather, predictable age-related changes can be identified which describe aesthetic development in terms of typical modalities of behaviours. Concepts from information-processing theory provide a middle way through an understanding of aesthetic development. For example, Hargreaves and Galton (1992, revised 1996) have provided a five phase model which incorporates general cognitive aesthetic developments as well as those which occur within specific domains. The researchers report the developments in terms of *phases* rather than stages so as not to be confused with Piagetian 'stages'. The five phases are denoted sensorimotor , figural, schematic, rule systems and professional and refer to the activities of drawing, writing, singing, musical representation, melodic perception and musical composition. The model draws from current domain specific research and acknowledges its somewhat sketchy form at the stage of writing due to the body of research in this area. Nevertheless, it provides some interesting insights which draw together psychological research into aesthetic development.

The first *sensorimotor* phase (0-2 years), which was called the pre-symbolic in the original version of the model, contains many of the features recognised by Parsons, Ross and Gardner in their respective models. In the processes of art making it is characterised by the physical actions and sensory involvement with the artistic media and is equated with Bruner's 'enactive' representation at this age. For the purposes of this research into listening this phase may be represented by responses which refer to the qualities of the sounds themselves.

The second *figural* phase (approximately 2-5 years) is characterised by global or outline representations within the artistic media and is equated with Bruner's

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description of iconic representation. There is much to remind us of Gardner's first wave of symbolisation in this phase. In terms of this research, a figural listening response might contain a general representation of the music for example in terms of its mood or metaphoric character or a concentration of a single 'concrete' dimension of the music, for example, the rhythmic pulse. Responses in this category could also refer to the mechanics of producing the music. This hypothesis is derived from Davidson and Scripp (1989) on children's drawings of rhythmic patterns.

The third *schematic* phase (approximately 5-8 years) is dominated by cultural rules and standards. Subject matter and realism is important. What is being represented is more important than the style in which it is being represented. In terms of this research a schematic listening response might refer to the music being valued in terms of if it sounds 'right' or 'real' in terms of the musical conventions it employs.

The fourth *rule systems* phase (between the age of 8 and 15) shows the increasing mastery of the cultural codes of the art forms in which the children are working. This may include more realistic drawing in terms of perspective for example. In music, this phase might be characterised by the ability of a child to represent the precise pitch and rhythmic relationships not only in relation to intervals and rhythmic patterns but within the tonal structure and metre of the piece as a whole. Listening responses in this phase might be characterised by a greater awareness of the elements of music 'working' and being valued in relation to the sense of the formal structure. Other features might include a sense of the appropriateness of the sound for mood and the style of the music.

The final *professional* phase (beginning in the teenage years) shows a full mature understanding of artistic conventions. The young person comes to appreciate that there are many acceptable possibilities which are not necessarily governed by

conventional rule systems . The quality for divergence and originality is valued. An example is given from research by Davidson and Welsh (1988) in which students responded to a composition task first by working once again in the enactive mode through experimentation and improvisation. It became clear that the more advanced students in this phase could internalise larger musical units before working them out at the keyboard. This is described as a higher order symbolic or reflective level. Listening responses in this phase may show a wider understanding of the musical conventions at work in range of musical styles. Listeners' responses may show a greater differentiation between that which simply conforms to the rules and that which makes new and unexpected or original relationships. An application of Hargreaves' model to listening suggests in this phases a listener may be able to make critical and objective analysis of certain aspects of the music within the context of the music as a whole. As such my thesis investigates the listening response to music at the point where theories of aesthetic development in education and psychological studies of cognitive development intersect.

In the field of music education, Swanwick and Tillman (1986) have produced a spiral model of music development. I shall now discuss its relevance in terms of symbolic functioning within models of aesthetic development and how it informs an understanding of musical development. The four levels of the spiral are age related (materials, expression, form, value) and the first three are aligned by the researchers to Piagetian stages. As such then each loop on the spiral resembles a Piagetian stage. The work primarily relates to qualities found by the researchers in children's compositions (aged 3-9 years). Mills (1991) warns:

> We have to be careful not to generalise too far from this. A model that works well in one restricted situation, and seems to make sense in another, is not true of all musical activity. We do not know if it applies to the work of other teachers of composing, or performing or to all forms of listening. Neither do we know the extent to which it makes sense to superimpose composing, performing and listening spirals, for instance, and talk about a spiral of musical development. (p. 100)

Similarly, Burnard (1997), in her current investigation of children's musical thinking in improvisation and composing, warns against adopting such a general stage model such as the spiral. Her argument suggests that if a developmental template is imposed on children's musical development, this can limit teachers' expectations of pupils' musical understanding, which as her research shows, is much more differentiated.

What Swanwick's model does demonstrate are evaluative components which correspond to related theories of aesthetic development. For example, Swanwick's first two levels - sensory and manipulative - refer to the individual's experimentation with sound materials which corresponds with Ross's mode of operation which is termed the 'pre-aesthetic', Gardner's 'pre-symbolic', and Hargreaves and Galton's 'sensorimotor' phases. Levels 3-5, 'personal', 'vernacular' and 'speculative' refer to an increasing awareness of patterns and structures in music with some awareness of the expressive quality of music. This corresponds with that which Ross calls the 'quality' level and Hargreaves and Galton's 'figural', schematic and 'rule -systems' phases. The final levels, 'speculative', 'idiomatic' and 'systematic' refer to the increasing ability to manipulate sound to make meaningful and symbolic music. This can be paralleled to Ross's 'tacit' level of aesthetic awareness and Hargreaves and Galton's 'professional' phase. Although the references to aesthetic development in music are implicit within the model, it is the concern of Swanwick that the research has wider application within aesthetic criticism (Swanwick, 1994).

In terms of its contribution to the developmental psychology of music, Swanwick's research has a number of limitations. First, the data illustrates the applied model of cognitive development rather than provides a deductive test of it. Secondly, the coding scheme needs a more rigorous design, Thirdly, further independent tests of the model are necessary to ascertain its validity. From the perspective of this

research study the data was based on the *researchers'* interpretation of the children's compositions. Like Burnard, I adopt a different research design. I consider an important focus in the investigation of children's musical development is the *pupils'* perceptions and responses to their own compositions and compositions of their peers rather than the interpretations of the researchers. In this way my research differs from Swanwick's approach and adopts an alternative methodology which can accommodate listeners *personal* responses to music.

To summarise, in this section I have set out the parameters of the research within the field of psychology. I have framed the argument within a formalist and referential understanding of making meaning in music and show through a discussion of theories of symbolic functioning within cognitive development, not only how they are located within generic and domain theories of aesthetic and music perception, but also, how these positions function interdependently of each other. My research recognises the formalist viewpoint, where meaning in music is dependent on the internal properties of the music itself, but I choose to research the question in a referential way; one which acknowledges the context of the listening, the experience of the listener and social and cultural experiences which mediate personal meaning. By the end of this chapter I have established an agenda for the research design to be both rigorous and able to accommodate individual responses to the listening experience.

2.2 Listening Styles and Strategies

2.2.1 Age

The differential literature with respect to *age* covers several areas and overlaps with studies in relation to perception of cognitive structures in music. For example, particular studies have concentrated on the *age-related acquisition* of pitch, melodic, rhythmic, tonal and structural relationships in music. It is not the purpose of my research to review this literature in detail as each has its own literature (summarised in Shuter-Dyson and Gabriel, 1981; Hargreaves, 1986; Sloboda, 1988) but to illustrate how my research differs in design. For example, Lamont (1998a, 1998b) undertakes several studies which investigate children's musical listening capabilities with respect to musical pitch across the age range 6-16 years. The research draws on cognitive-structuralist research and produces a battery of test material much in the same vein as Wing (1968), Bentley (1966), Gordon (1965) and Krumhansl (1983). This parallel is formed on the basis of the way the test material focuses on one music generative process and the way in which the material is presented. In Lamont's work (1998a) this is pitch perception and the batteries, which she describes as the Primacy battery and Recency battery, consist of randomised sequences and their retrogrades of seven diatonic notes. These were rated by the children for goodness of fit. The batteries were prepared on a synthesiser controlled by a computer, recorded onto audio tape presented to the children in a short-term 'testing' situation. Further work conducted by Lamont (1998b) replicates a study by Bamberger (1991) which again uses a short-term test situation. In this case the test accommodates the children's use of chime bars (through a series of listening and sorting activities). Essentially both examples illustrate research design which comprise 'tests' within a short-term activity situation removed from the everyday curriculum practice.

2.2.2 Analytic - Global Listening Styles

Lamont's study (1998b) which replicates Bamberger (1991) also allows us to look at the effect of musical *training*. Lamont divides her sample into those who were 'trained musicians' (those who responded positively to the question 'do you have music lessons?'), 'playing musicians' (those who responded negatively to the question 'do you have music lessons?' but positively to the question 'do you play a musical instrument?) and 'non- musicians' (those who responded negatively to both questions). Whilst she draws some interesting conclusions from the children's self-perceptions of their own music education e.g. the schools with more 'trained musicians' provided peripatetic music teaching but included a greater proportion of children who viewed themselves as 'non-musicians', her results reveal that the older children with more training responded in a more *analytical* way, whilst the younger children with less training responded in a more *global* way. She outlines several cognitive representations which describe how the children in the sample completed the task. These are unsuccessful, figural, mixed (mid-way between figural and formal) and formal. Figural (or concrete) understanding in this study means that the pitches of a melody are understood in terms of their concrete position in the tune i.e. the first note, last note. So for example in selecting chime bars to show the pitches of a tune, even though the first and the last note are the same in the tune, the child would need to concretely set out a chime bar for each position. For Lamont, formal understanding demonstrates a symbolic understanding. In Lamont's study after Bamberger, this means the child does not need to concretely set out a chime bar for each position but rather can abstract the position of the pitch within the whole tune. In other words one chime bar can be played more than once, demonstrating its symbolic position in the tune, independent of its literal position within the tune. Her results showed that both children with formal musical training and older children were significantly more likely to produce more formal representations, completing the task using systematic and economic

strategies. In other words older children and children with music training employed more formal (symbolic) ways of solving the task than younger children.

In my research I want to investigate the *global-to-analytic* shift with age and training with particular reference to listening. I shall now briefly outline some other studies which corroborate this view across different aspects of responding to music. Dowling (1992) found that novices were more likely to perceive a melody in terms of its figural shape as opposed to 'experts' who perceived it in terms of intervallic pitch relationships. Smith (1983) demonstrates this effect in relation to the perception of rhythmic patterns. The study was undertaken with children and adults and the results show that both children and adults with training in music were more likely to focus on metric organisation, whereas untrained listeners relied more on figural organisation. In other words the 'experts' perceived individual musical events as part of the overall rhythmic structure whilst untrained listeners 'novices' attended to the overall shape of the rhythm. (This has also been studied in relation to children's graphic representations in music: Bamberger, 1982, 1991, 1994; Davidson and Scripp, 1988, 1989). Parallel research exists in the work Pollard-Gott (1983) of Zenatti (1991) and Gromko (1993) which separates out listening perception in terms of *primary parameters* which are described as theme, harmony and rhythm and *secondary parameters* which are described as the elements of loud/soft, slow/fast, high/low. Their research can be described as parallel because the primary parameters of perception relate to the more formal and symbolic functions of music and the secondary parameters relate to the more figural characteristics within elements of music. Without going into the research detail , it is relevant to my thesis to note that Pollard-Gott (1983) agreed that novices perceived 'secondary' parameters first before 'primary' parameters. Training improved the novices perception of 'primary' parameters. Gromko (1993) also found that novices similarity judgements were fixed on secondary parameters. Given the lack of training, novices cannot rely on the learned rules and conventions of musical

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structure but have to rely on less 'specialised' observations. Gromko also found that after repeated listening novices moved to 'primary' perceptions, implying the effectiveness of training.

2.2.3 Training - Experts and Novices

I now want to focus the discussion to include other dimensions of music perception by *experts* and *novices* which is an area I also return to in the discussion of my results. Hare (1977) found that novices showed a listening sensitivity towards both the tempo of the music and the mood of the music. Novices were more likely to respond in terms of mood, the character of the music and the way it affected their emotions. Experts were more likely to perceive the music in terms of the patterns within the music and in terms of 'classical' stylistic conventions. Again this demonstrates the novice attending to more global features and experts attending to analytic features which reflect their training. This view is corroborated by Hargreaves and Colman (1981) who showed that novice listeners were more likely to produce affective constructs whilst expert listeners produced responses referring to objective and technical details in the music.

Research examples drawn from the psychology in music start to build a profile of how we might expect a trained musician and a novice to respond. The literature defines experts and novices in different ways, but generally the terms are used to refer to children or adults who have received specialist musical training (usually in the form of instrumental tuition) over a number of years. This is corroborated by general literature in the area of expertise where expertise is defined in terms of problem solving, 'expert problem solvers must acquire a great deal of domain-specific knowledge, a feat that requires many years of intensive experience' (Mayer, 1992 p. 390). Consistent with this idea is that expertise is grounded in years of acquiring domain-specific knowledge and demonstrates that 'experts excel mainly in their own domains' (Glaser and Chi, 1998, cited in Mayer, 1992). Mayer (1992)

defines the differences *experts* and *novices* show in relation to four different types of knowledge which I shall discuss below to inform a view on listening knowledge and strategy.

According to Mayer, experts store *factual* knowledge in larger functional units which can be quickly accessed for specific types of problems. Novices, store their factual knowledge as a fragmented set of functional units which are accessed sporadically and individually to solve problems. For instance, if a jazz expert listens to jazz, s/he can describe the features of rhythm, harmony , melody and context drawing from their specialist 'jazz' knowledge base. All objective factual terms and subsequent experiences of 'jazz' music are continually refined and added to the cluster of 'jazz' knowledge within this 'larger functional unit' and as such may be triggered as a whole and accessed quickly for recalling facts. Novices without an expertise in jazz search to respond 'accessing principles individually' e.g. the slow beat, the relaxed mood. This theory outlines two possible listening strategies for expert and novices and links to both Werner's view of cognitive development and Gromko's findings stated above. For example, the undifferentiated global responses of the novices e.g. in terms of mood, are typical of Werner's view of early stages of development within one knowledge base. Similarly, the novice listening strategy described above which picks out individual events e.g. the slow beat, links to Gromko's findings suggesting that novices are more likely to perceive music in terms of the secondary parameters i.e. loud/soft, slow/fast, high/low. The strategies proposed by Mayer also corroborate Werner and Gromko's findings where experts are more likely to perceive the music in a more differentiated way in terms of primary parameters i.e. themes, harmony, rhythm which they associate with a particular style. In describing this music they are more likely to respond using technical analytic terms derived from their expert knowledge base. In addition, Myles-Worsley, Johnson and Simons (1988) found that experts have automated their recognition procedures. This corroborates Gromko's research

(1993) which found that experts can rely on learned conventions of musical structure, whilst novices need repeated playings to move from secondary parameters to primary parameters of perception.

Other differences between experts and novices refer to *semantic* knowledge, i.e. knowledge of the concepts which underlie a given situation (Mayer, 1992). Given a problem the expert will use domain based concepts. In music these could be described as primary parameters - the concept of melody, theme, structural devices for example - which are applied to the listening problem. The novice, however, approaches the problem through a naive representation based on surface properties. In music these surface properties might be described as individual musical events (e.g. surprising loud sound) or as extra-musical associations (e.g. an emotional response, a movement quality).

The results of the research by Goodwin and Sanati (1986, cited in Mayer, 1992) suggest that training in *schematic* conceptual models can reduce or eliminate the effects of expertise on learning a new 'language'. For example, if a listener understands the semantic principle of repetition of a rhythmic pattern or the principle of closure in music, this can then be applied as a model for music listening across all musical pieces and styles. It also has important implications for pedagogy. If the elements of music are separated out from the semantic principle in which they are embedded, then the training may be less effective. This is often the case in teaching at Key Stage 3 where a unit of work can focus on intervals without relating to principles of tension and release, for example. Mayer (1992) also demonstrates the difference between experts and novices schematic knowledge in recognising types of problems. This is interesting as it suggests how experts/novices categorise information. Mayer (1992) shows that both experts' and novices' categorise problems, that but they differ in the quality of their categories. Novices' categories are triggered by surface properties (in the case of music this could be beat,

loudness, length of piece, overall value judgement). Experts bring schematic knowledge to the task, thus forming categories which are tied to solution plans e.g. structural similarities. In the research above this relates to the experts' formal/symbolic understanding as opposed to the figural knowledge of the novices.

Adelson (1981) demonstrated that experts and novices differed in how much information could be recalled and how the recalled knowledge was organised. The research suggests that experts could recall more information in an initial recall session and that this information comprised chunks of information. It could therefore follow that experts are sensitive to typical configurations of sounds and use this knowledge to help them organise their listening experience.

Strategic knowledge is defined by Mayer (1992) to describe how a problem is worked out i.e. in the terms of problem solving. This research shows that experts work forwards from givens to the unknown. In other words when a listener is exposed to a piece of Baroque music the response may be driven by 'constituent givens' of Baroque music (e.g. the inclusion of a harpsichord and continuo part, stylistic ornamentation of the vocal line) which lead to a recognition of the music as Baroque. Novices work backwards from unknowns to the givens. So for example, the novice might recognise a vocal line, recognise its ornamentation, hear that it is accompanied by an instrument, recognise it is a harpsichord, hear the cello and bass playing a walking bass line and come to the conclusion that it might be a piece written in the Baroque period. Concurrent with this thinking is the idea (Jeffries, Turner, Polson and Atwood, 1981) that experts break problem solving down into finer subparts and are more systematic than novices. For music listening this might result in a response which shows an increasing systematic analytic approach to one aspect of the music. At the same time Jeffries et al. suggest that experts were more likely to consider alternative explanations. This may lead to experts approaching the interpretations from a variety of standpoints.

Here, we see Jeffries et al. outlining the role of global perception within the experts' problem solving capacity. Jeffries et al. suggest that that 'global' perception is part of the experts' initial familiarisation of a task. This sheds new light on the role of global perception in music. Whereas the research outlined above suggests that global perception is more characteristic of novices' listening style, Jeffries et al.'s theory implies that global perception is an initial part of an experts' strategy when listening to a piece of music. This contributes to a more differentiated view of experts' listening style. Hitherto, research in music psychology leads us to the view that novices perceive music in a more undifferentiated gestalt way and pick out, in an unsystematic way, figural or secondary parameters of the music. Jeffries et al.'s research corroborates this view, stating that novices will start to begin solving a problem before taking stock of the whole. Again, we see a differentiated picture of the novices' listening style emerging through the different interplay of global and analytic modes of perception.

This leads on to the question of whether experts have a more meaningful listening experience than novices? Waterman (1996) suggests that novices showed a greater variation in the way that they listened to the music. He continues that untrained listeners may 'get more from the music' (p. 65). For this research Waterman invited both expert and novice listeners to press a physical device to indicate their ongoing emotional responses to pieces of music. The results showed that both the experts and novices produced a similar number of emotional responses. Seemingly the music consistently elicited some sort of emotional response. The participants in the study were then questioned about their listening responses and the results qualitatively analysed. Waterman tries to determine the relationship between *explicit* and *implicit* effects in their individual listening profiles. Explicit effects referred to the listeners' ability to reflect observations about the music in a conscious way. Implicit effects refer to responses which appear to have no considered self -

reflection. A coding scheme was established comprising 13 sources of variation. It appeared that novices showed a greater variation in the way that they listened to the music. The experts on the other hand showed less variation in their responses. On a first analysis it might appear that the lesser source of variation in the experts' response profile might mean a lesser emotional response to the music. However a second analysis reveals that the triggers for the experts' emotional response could be located within the expert - knowledge domain of the musician. In other words the music triggered the expert listeners into a more a systematic analytic response on a specific aspect of the music. This relates well to the theory (Jeffries et al., 1981) that experts break problem solving down into finer subparts and are more systematic than novices. This might account for their seeming lack of variety of listening approaches. Novices, on the other hand, showed a range of responses. Waterman suggests that without 'appropriate means to analyse the structural properties of the music, novices search for other sources of association which remain unconscious, implicit and unable to be articulated in musical terms'. This also corroborates Mayer's view (1992) of the novices' unfocussed and unsystematic approach to problem solving.

The research evidence therefore supports the idea that there are differences in the way that novices and experts perceive music. Whilst there is some differentiation between the global-analytic modes for both experts and novices, the overall descriptors suggest that experts use a more objective-analytic mode. This has also been referred to as 'syntactic' listening (Smith, 1987). Novices demonstrate a different listening style which Smith refers to as 'non-syntactic', characterised as more extra-musical associative, emotional and sensual. This becomes interesting and problematic for my own research in the light of educational conditioning. By this I mean that in the course of music training, students are expected to respond in a syntactic way through for example, the analysis of musical works. Conversely, their 'non-syntactic listening style' which is characterised by affective, emotional

and personal responses is less valued in the educational context and so as Kemp (1996, p. 129) states, is 'typically depreciated, indeed, if not dismissed by a number of musicologists'. Certainly many students on music courses from GCSE to degree level express the view that musical analysis can destroy their personal enjoyment of a piece of music.

By reinstating the place of the affective in learning at all stages of the listening/analysis process, could it not follow that music education might be more meaningful and more enjoyable? This is an important concern in my research along with its implications for teacher training and curriculum development which I develop in a later part of this thesis.

2.2.4 Personality and Learning Style

The discussion becomes intensified when we refer to the literature on personality and learning style. Kemp (1996) summarises the work of Witkin et al. (1974) and McCrae and Costa (1985) which refers to learning style in terms of 'field-independence' and 'field-dependence'. To briefly outline the two; a field - independent person 'is able to perceive the different parts as discrete units, and separate from their background', 'have a sense of separate identity' (Kemp, 1997 p. 58), 'takes a more analytic stance and is able to penetrate a piece in such a way that he or she can take delight in its various parts and appreciate how they contribute to the overall effect' (p. 132). A field-dependent person needs external cues, is more submissive, needs a supportive environment and 'is dominated by the overall organisation of the field, the parts are perceived as being fused together as a whole', 'may have a better developed sensitivity to expressive and stylistic qualities in music' (p.133). The field-independent persons who demonstrate a more analytic, perceptual listening style are also the personality types more attracted to the study of music itself. Also, field-independent types are more likely to listen to music in an analytic way. Ellis and McCoy (1990) found that field-independent students on an

introductory music course were more able to recognise musical structures in the music examples than field-dependent types. Here is the *conundrum* for music education. Whilst on the one hand field-independence facilitates the learning of music perceptual skills, on the other hand this facility is responsible for perpetuating music education in this 'analytic' way. It could also account for the fact that associative, expressive and stylistic qualities do not receive the focus in teaching which they deserve, and furthermore, such teaching strategies may deny field-dependent types access to music learning.

2.2.5 Hemisphere and Neurological Studies

The argument goes further in relation to brain hemisphere studies. A 'best fit' model which relates to music learning suggests that analytic strategies are located in the left hemisphere (linguistic, speech function), whilst global perceptual strategies (spatial, creativity) occur in the right hemisphere (Sloboda, 1985 p. 130). Interesting research by Zalanowski (1986) illustrates the effect of analytic vs. global teaching strategies for non-music specialists. The findings showed that when the participants were asked to listen to examples of both programmatic and non - programmatic music using a right-hemisphere strategy i.e. generating their own mental images, this significantly enhanced their understanding and enjoyment of the music. A more analytical approach did not lead to an appreciably better understanding or enjoyment of the non-programmatic music. To some extent this supports the increasing concern to reinstate listening through holistic strategies e.g. mood and imagery for both experts and novices. It would appear (Zalanowski, 1986) that learning is more effective if the teaching strategy is matched to the respective learning style i.e. right/left hemisphere learners benefit most from holistic/analytic approaches respectively. This suggests that there is a need to investigate further the issue of individual listening styles and teaching differentiation in music teaching.

I shall now consider this issue in the light of some examples from neuroscience and music. Investigations by Sergent (1993) suggest that music processing calls for highly complex multi-modal mental operations. It involves, for example, the auditory modality for 'hearing and appreciating melodies, rhythms, harmonies and timbres, the combination of which define a musical piece ... and cognitive and emotional processes involved in the interpretation and appreciation of music' (p. 168). One way neuroscience has examined the function of the brain and music is to study homogeneous groups of neurologically intact musicians and of brain damaged musicians. This work reveals that the extensive neural network is distributed in locally specialised regions of the brain. Some research in this area (Wallin, 1991) suggests that the loss of verbal functions (aphasia) does not necessarily result in the loss of music functioning (amusia) and vice versa. This suggests that neurobiological structures function autonomously from each other. The fact that some aspects of music processing may not be affected by damage to the left-hemisphere (language) suggests that the right hemisphere plays an important part. As Zanalowski has demonstrated in the study above there are important pedagogical implications in facilitating listening which reinforces right-hemisphere neural functioning. Conversely, this type of listening activity, may stimulate qualities associated with creativity and spatial awareness. Rauscher, Shaw and Ky (1993, 1995) set out to consider the link between music cognition and 'higher brain functions'. Both studies found that listening to Mozart enhances the spatial reasoning performance of students. The results imply that listening to Mozart helps the brain to 'wire' the cortical *patterns* by firing neurones in the brain so that that they do not 'wash out for other pattern development functions, in particular, the right-hemisphere processes of spatial-temporal task performance' (Rauscher, Shaw and Ky, 1995 p. 47). They conclude that music functions as an 'exercise' for priming the neural pathways of the cortical firing patterns responsible for higher brain functions. The *patterns* are related to different pitches, instruments and styles of music which the researchers suggest are processed in different parts of the brain.

As Petsche et al. (1993) has demonstrated, through EEG coherence analysis, music is processed in many different cortical areas. His work also reveals that there are very large differences in how Mozart is processed versus Schoenberg for example. Clearly there is much work to be done in this area not only to understand more about how music is perceived neurologically, but also to determine its effect on cortical development and types of cognition. Sharp (1998) agrees with Rauscher et al. that more research is needed to establish the relationship between 'listening to music and effects on analytic, as opposed to creative tasks, in order to develop further the theory of cortical pattern evolution' (p. 55). I would corroborate this view but would want to emphasise the importance of researching into the effects of music on 'creative' intelligence.

2.2.6 Gender - Biological and Social

I shall now examine brain function in relation to gender. Recent research (Moir, A. and Moir, B. 1998) highlight gender differences in the function of the brain. As Kimura (1992) states:

> ... behavioural, neurological and endocrinology studies have elucidated the processes giving rise to sex differences in the brain. As a result, aspects of the physiological basis for these variations have in recent years become clearer. In addition studies of the effects of hormones on brain function throughout life suggest that the evolutionary pressures directing differences nevertheless allow for a degree of flexibility in cognitive ability between the sexes. (p. 81)

According to the research women perform better than men in tests of perceptual skill, object displacement tests, lists of ideational fluency (e.g. listing words which begin with the same letter), precision manual tasks including fine motor co-ordination, and mathematical calculations. Men perform better on spatial tasks which involve rotating a three- dimensional object for example, target directed motor skills, disembedding tests and mathematical reasoning. Further research is needed to ascertain the reasons for this. To a certain extent these differences have been explained by the levels of androgen in the blood. Shute (1983, cited in Kimura, 1992a) found women with high levels of androgen in the blood performed

better at spatial tests. Conversely, men that performed better at spatial tests were those with low levels of androgen. Gouchie and Kimura (1992, cited in Kimura, 1992a) suggest that some optimum level of androgen exists for spatial ability and that this level may fall in the male range.

As Kimura (1992) states it is widely assumed by many researchers studying sex differences that the two hemispheres are more symmetrically organised for speech and spatial functions in men than in women. This research suggests that the major neural system connecting the two hemispheres may be more extensive in women than in men:

> ... perceptual techniques which probe brain asymmetry in normal functioning people sometimes show smaller asymmetries in women than in men, and damage to one brain hemisphere sometimes has a lesser effect on women than the comparable injury in men. (p. 85)

Whilst Kimura's work has not found evidence of sex differences in functional brain asymmetry with regard to motor selection, spatial rotation and simple speech, she did find differences in more abstract verbal tasks. Her results showed that in reviewing the meanings of words women use the hemispheres more equally than men.

Witelson (1976) reports differences in relation to the early specialisation of the right hemisphere for spatial processing with regards to both age and sex. She found that the right hemisphere has the dominant role in processing non-linguistic spatial information by at least age 6 years. However, in girls the right hemisphere is not dominant even by the age of 13 years, but instead there is bi-lateral representation. This suggests that the same neural structures in males and females may have different functions with respect to at least one aspect of cognition during a major period of development. It also suggests that the same cognitive process may be 'wired' by different parts of the brain in boys and girls.

Another aspect of Kimura's research suggests that cognitive patterns may remain sensitive to hormone fluctuations throughout life. For example, performance of certain tasks by women changes throughout the menstrual cycle. High levels of oestrogen were associated not only with relatively depressed spatial ability but also with enhanced articulatory and motor capability.

Clearly this is an area which is open to further research especially in relation to gender specific listening responses. It may well be the case that neurology contributes to gender differences: a discussion which has 'normally' been seen as a sociological phenomenon. Some of these sociological differences with respect to gender are discussed below. Research shows that in general girls are generally more likely to hold positive attitudes towards music than boys (Crowther and Durkin 1982). More girls than boys are involved in school music and are more successful at examination level (DES, 1991). Some researchers claim that girls have achieved greater success in tests of musical aptitude (Sloboda 1985, p. 213). However, O'Neil (1997) points out there is no female gender superiority in the area of musical achievement: 'explanations that have been offered by researchers for these differences have been speculative and remain unsupported by empirical evidence' (p. 4).

Cooper (1994) reported no sex differences in the ability of children aged 6-11 to discriminate pitch. Sloboda (1985) found that girls performed better than boys on most tests of consonance/dissonance preference at most ages. The role of gender in the ability to perceive affective states was found not to be a significant factor in the research of Sopchak (1955), Hirsch (1981), Tharinger (1981), van Bezooyen (1984) and Dolgin and Adelson (1990). However, studies by Dimitrovsky (1964) Taylor (1969, 1973) Nielzen and Ceserac (1981) Field and Walden (1982) and Denninger (1983) have shown gender differences supporting female bias over boys. The work of Hart and Cogan (1973) reported that female college students

were more likely to associate classical music excerpts with positive emotions significantly more often than male students. Research by Giomo (1993) on the relative ability of children aged 5 and 9 years to recognise emotion in music showed that the girls received a higher mean total score than did the boys in both age groups. Whilst gender considerations may not have been the main focus of these psychometric studies, the research field is reporting gender observations with increasing frequency.

The relevance of Green's (1997) work demonstrates the complexity of gendered musical delineations affecting individual's perceptions of music. She makes the point that pupils and teachers collude with each other in the perpetuation of the gendered politics of music. I shall demonstrate this with references to her research (1993) which investigates the assumptions which secondary music teachers held about their pupils as listeners.

Seventy-eight music teachers were asked to rate a list of activities, including listening, in terms of 'girls', 'boys' or 'both equally' and to give reasons for their answers. The initial analysis showed that 67 teachers thought girls and boys responded equally to listening, 11 thought the girls achieved better; no teachers thought that boys achieved greater success in this area.

From the reasons stated, girls were believed to be better at listening because they could listen in a more sustained way, could concentrate more easily, were more aware of what they were listening for, were better prepared, and appeared to think more carefully about the presentation of their ideas. Conversely, boys appeared to be restless, less prepared and not able to listen carefully enough for most of the time. One teacher contradicted this, believing the girls had a problem concentrating and the boys had a longer concentration span. One teacher differentiated with age to say that girls in the lower school had a longer attention span. Another teacher stated

that when the boys did attend to the music they could make more sense of what they were listening for. The research also revealed that some teachers believed that boys already 'knew it all' which was why they were restless. Others believed that girls 'often know the answers but don't have the confidence to put up their hands' (p. 235).

Another aspect of the research project showed that boys 'even if they like the music (again rap, ragga) were more likely to move to the music rather than listen to it. This corresponds with further assumptions which are revealed in the course of the study 'that boys are more active in their music making whilst girls are more passive' (p. 242). The assumption that boys are more imaginative in their listening is also revealed. Further documentation in the report shows this quality to be linked to the teachers' beliefs that males appear to have more confidence, creative spark and the willingness to experiment in music. Boys are also believed to have a longer concentration span and be more broad minded/open minded in their approach to listening (p.229). Green acknowledges one statement which contradicts the popular idea that that girls lack concentration. In the course of this report 'open mindedness' feelings, perseverance and an awareness of what to listen for, are assumed to be more characteristic of female 'attention' style in listening to music.

With reference to style preference, Green proposes that pupils under the age of 14 find it difficult to understand technical musical features in relation to musical style. Green (1997) shows that boys believe girls prefer slow classical music, played on the flute and cello. Boys assume that girls like love songs and music 'that's in at the moment' (p.172). The teachers corroborate this belief about listening preference saying boys prefer popular music and girls classical music. Within pop music, girls are believed to idolise singers and get more involved in the music, whilst boys don't show emotion and are embarrassed by pop music sentiments. As Green points out, the terms 'classical' and 'popular' are used by teachers and pupils, not so much as

style descriptors or indicators of valued music in school, but as 'connotations of particular gendered musical practices' (p. 183). These connotations become perpetuated in delineations of the actual music, such that classical and slow affirm feminine identity whilst popular and fast become male constructs.

The relevance for music listening is that the delineation of gender also works within the music itself to affect our listening. For example:

> When girls avoid drums, it is not just because of the stereotypes or conventions concerning musical roles, but because of the performance related delineations of a girl drummer that act to interrupt not only the listeners' experience of her drumming but also her own listening experience of her own drumming. (Green, 1997 p. 186)

To summarise, in this section I have set out the parameters of the research within the differential literature with effects of age, training and gender. I have considered the increasingly differentiated dimensions of the listening experience, sensitivities and strategies used by both novices and experts. The main line of argument is concerned with global-analytic perception and its development in respect to age and training. Neurological studies into left-right brain functions shed some light on this although it is recognised that further research is needed to determine the neural pathways involved in the listening process. Recent research suggests that gender differences in listening style may not only be accounted for by a sociological line of enquiry but also through gendered neurological functions. The sociological line implies that at the bottom of every musical practice, association, interaction and listening experience lies a gendered construct.

2.3 Dimensional Studies

The final part of the chapter involves designing an appropriate methodology to investigate aesthetic listening responses within the context of my study. Given the nature of aesthetic appreciation and the complex relationships between cognitive and

affective perception, inherent, delineated and gendered constructions of musical meaning, a body of research has emerged within experimental aesthetics which uses multi-dimensional scaling as a means to investigate aesthetic responses. Multi-dimensional scaling (MDS) involves a number of testing procedures including paired comparisons, rating scales and semantic differential scales. The techniques are multi-dimensional in that dimensions of the listening responses can be elicited, degrees of differentiation measured on each particular scale, and interrelationship between dimensions correlated. One MDS technique which has been used in this field is INDSCAL (Carroll and Chang, 1970) which Berlyne applied in subsequent research (1976). Here, the participants were given a set of paired examples and asked to rate them on a 7- point 'similar-dissimilar scale'. The dimensions which emerged from the analysis included stylistic, structural, affective and evaluative parameters which were subsequently used by other subjects to rate the same stimuli.

MDS techniques have been applied by Hare (1977) with groups of experts and novices listening to 16 excerpts of tonal music from 1700-1900. The six studies were based on the dimensional scales of similarity, description, affective qualities, style and technical detail. Preference, listening time and exploratory choice were also added to the scales. The results showed the dominant features of aesthetic perception between the non-musicians and the musicians. Further studies have adapted the techniques to embrace a wide range of participants in relation to a wide range of music. For example Nordenstreng (1968) used excerpts from 'serious' and 'popular music', Wedin (1972) used excerpts from 'serious', 'popular' and 'jazz' music and Berlyne (1977) extended this research using excerpts of folk music. Cupchick, Rickert and Mendelson (1982) used MDS techniques to compare jazz improvisations, classical, pop and rock music in terms of similarity and liking. The dimensions which emerged from the studies showed the technique as a viable alternative to the more traditional approaches of factor analysis.

One advantage of using this technique is that it offers a sufficiently open -ended approach which can accommodate a wide range of responses yet which can be analysed in both qualitative and quantitative ways. The MDS techniques which elicit bi-polar constructs and the use of repertory grid techniques are also common to constructivist Personal Construct Psychology. A full description of the techniques can be found in Kelly (1955), Beail (1985) and Winter (1992). I consider the design of the methodology which derives from these techniques in Chapter 3.

Hargreaves and Colman (1981) elicited bi-polar constructs from 44 listeners to 18 pieces of music. To do this the musical excerpts were grouped into sets of three and the subjects were asked to 'think of some important way in which two are alike and thereby different from the third'. The resulting constructs were then subjected to a content analysis comprising five categories. These categories were *Categorical* (responses referring to style e.g. 'pop', 'classical'), *Objective - Analytic* (responses referring to specific 'technical' elements such as instrumentation or tempo), *Objective - Global* (responses describing intrinsic qualities of the music as a whole rather than specific elements of it), *Affective* (responses showing mood and evaluative responses e.g. cheerful. horrible), and *Associative* (responses referring to extra-musical associations e.g. like a bird singing in space). The results showed a clear distinction between what might be called objective technical responses (Categorical, Objective - Global, Objective - Analytic) and more subjective personal ones. The more experienced listeners were more inclined to produce constructs of the objective type whilst the novices produced more responses of the affective type.

This study was repeated using the same test material but to 42 children aged from 7-15 years old (Hargreaves 1982a) The material was presented to the children in nine pairs and this time instead of the 'odd-one-out technique' the children were invited to 'write down the ways in which you think these two pieces are the same as one another, or the way you think they are different from one another, in one sentence

only'. The findings showed that the children across the sample produced a high proportion of Objective-Analytic responses. It was also found that the number of categorical responses referring to style increased with age.

Other applications of the technique have been used, for example in Ward (1984). In this study 7 year old children completed three listening tests. The musical material was prepared by electronic synthesis. In the first test, two note chords were presented in sets of three and the children were asked both to identify the 'odd-one-out' and give a reason for their choice. The results showed that the children perceived what musicians call 'consonance' and 'dissonance' using some 'more - than' and 'less-than' judgements e.g. 'higher', 'lower' and some more associative comments e.g. 'magic tune', 'clock gone wrong'. The second test also involved the 'odd-one-out' technique to discover whether young children perceive timbre differences more readily than pitch differences. The triads included one sound which was 'richer' than the other two and one sound which changed in pitch. The results showed that timbre was the most attractive feature. In the third test 12 short electronic pieces were presented to a class of 5/6 year old children who were then asked to write a short response. In Ward's analysis he makes a distinction in the types of responses elicited. Some found an actual realistic likeness e.g. 'sounds like an aeroplane' and some found a metaphorical likeness, e.g. 'jumping on the grass'. It is interesting how many of the children perceive the music as sense-based responses and reflect kinetic/movement and iconic representations.

I applied MDS techniques in the preparation of my Masters thesis, summarised in the British Journal of Music Education (Gilbert, now Mellor, 1990). The study involved 50 pupils who were divided into five age groups: A (9-11 years), B (11-12 years), C (12-14 years), D (14-16 years), E (16-18 years). Each group listened to two sets of three compositions. These were taken from curriculum compositions across the age range and also included one adult composition. The children filled in

a response sheet indicating successive selections of the odd-one-out and their reasons for their choices. The analysis mapped the bi-polar constructs onto the curriculum grid delineated in the Assessment of Performance Unit : Aesthetic development (HMSO, 1983). This was refined to form a framework for analysis (1990, p181) and included the categories: *Knowledge of Contexts* (responses showing the background details of the music and references to the lyrics); *Facilitating Skills*: (i) Aural Perception - general (responses to non- musical general perception e.g. fast/slow) (ii) Aural Perception - musical (e.g. in tune/out of tune), (iii) Aural recognition - Instruments, techniques and terms (e.g. drum/no drum, scales/no scales), (iv) Aural recognition - musical styles (responses showing stylistic references e.g. rock and roll), *Artistic Appraisals*: (i) Affective character/mood (e.g. sad/happy), (ii) qualitative judgements of form (e.g. organised/not organised), *Personal Preference* (responses showing value judgements about the music e.g. like it/don't like it). Although the research did not use statistical measures some interesting patterns of construing emerged to show different profiles of response for each age group, some of which contained dominant categories of response. For example, the younger age group showed broad based perceptions especially in the areas of facilitating skills (i) and (ii) and in the recognition of musical styles. The 9-11 year olds showed a dominance of facilitating skills (iii) in terms of recognising instruments, techniques and terms. The 12-16 year olds showed an increase in the number of personal preferences whilst the 14-16 year olds showed a rise in the number of artistic appraisals. Responses showed a more balanced profile in the older age group with a decline in the number of personal preferences and more responses in the category of artistic appraisals.

The studies described above have used MDS techniques in relation to the understanding of *children's* responses to music. The DELTA (Developmental of Learning and Teaching in the Arts) project, summarised in Hargreaves, Galton and

Robinson (1996) used the technique to make explicit *teachers'* appraisal of children's work in creative writing, music and visual art. A list was drawn up by the teachers of activities which they felt worked well with their pupils. From this list activities were grouped into triads and bipolar constructs elicited in the manner above. The dimensions were subsequently coded according to the construct 'structured/unstructured'. Teachers in the main study carried out activities with their children in consensus with their agreed understanding of structured and unstructured activities. Childrens' work was subsequently organised from these activities into further triads from which the teachers elicited a further set of constructs. The constructs were edited to form a composite list of non-overlapping bipolar rating scales for each domain for each art form. These rating scales subsequently constituted the subject specific criteria for assessment and were subsequently used to rate further children's work across the art forms. In music these scales represented several different dimensions for assessment. For example, recognition of technical features was represented in the constructs simple/complex', 'rhythmically simple/rhythmically complex'. The dimension of mood is represented in the ratings 'unevocative/evocative' and 'dull/lively'. Evaluative responses dominate the taxonomy of constructs and include the constructs 'unvaried/varied', 'unoriginal/original', 'ineffective/effective', 'unstructured/structured', 'uninteresting/interesting', 'unambitious/ambitious', 'disjointed/flowing', 'aesthetically appealing/aesthetically unappealing'. Other constructs refer to representation in the music and the technical skill of the piece. The results showed that the teachers' ratings appeared to be fairly global rather than differentiated and that these ratings were made in a consistent way by the different teachers in the study. Also the work derived from unstructured activities received higher ratings especially in the fields of music and visual art. Here greater credit was given to the dimension of originality .

Swanwick (1994) has also recently undertaken a similar type of study based on some of these techniques. A sample of children aged 7-8, 10-11 and 13-14 years listened to nine extracts of music taken from a sample of classical and popular styles. The extracts were grouped in three triads. Their responses were analysed and reported in three categories; materials, expression and form. The results show that the younger children showed a preoccupation with materials (e.g. the instruments playing). By the age of 10-11 expression seemed to dominate the children's responses. By the age of 13-14 there is a reduction in the responses relating to materials and expressiveness and a dominance of responses relating to musical form.

It is interesting to see from these studies that there are some areas of consensus. For example all the studies report a large number of responses referring to the musical elements in the music. Swanwick's study (1994) showed a dominance of this area in the 7-8 year olds. Gilbert's (now Mellor, 1990) showed an increase with age peaking with the age in the 11-12 year olds' responses. Both these studies found subjective preferences increased up to the age of 11 years (Swanwick) and up to the age of 14 years (Mellor). Both studies showed a decline in the subjective responses but at relatively later ages. The younger children were seen to use more global perceptions in my study as did the teachers (Hargreaves, 1992). Responses relating to the artistic appraisals or evaluations of form were seen to increase in the 14-16 age group (Mellor) and in the age group 13-14 years (Swanwick). Although the younger children showed a large number of style responses in Mellor's study, both Hargreaves' and the latter study showed an increase in this category in the older age groups. Clearly the research presented here is not substantial enough to claim any firm conclusions as to the broad dimensions of responses to music. However, these studies do provide windows into the possible ways forward. The findings would also seem to warrant further investigations especially in relation to stage-theory, or in relation to some of Gardner's hypotheses. For example, there is evidence to

suggest from both Mellor and Hargreaves (1992) that responses relating to the technical elements in music remains a dominant feature throughout all the age groups. This would accord with Gardner's theory that these type of responses would increase with age as children become more concerned with digital mapping and continue to refine and discriminate this cognitive ability according to the culture's codes and rule systems. The research which shows an increase in responsiveness to style also corroborates Gardner's theory. In the studies of Swanwick and Mellor this is underpinned by an increase in evaluative responses with respect to formal and structural perceptions. There is some evidence to suggest a decline in personal subjective preferences with age. This also supports Gardner's theory and ties in with broader theories of aesthetic development (Ross, 1984; Hargreaves and Galton, 1992; Hargreaves, 1996), where subjective preference is replaced by metacognitive or tacit degrees of attention.

Thus so far in the course of this chapter I have progressively focused my approach to the question of how we listen to music?. I started with a broad view through which I develop a referential line of argument. This argument investigates listening to music as a symbolic behaviour. This function is examined within general cognitive theories of development and domain specific development within music. From this I progressively focus the area of investigation of listening responses to music within the differential literature with respect to age, training and gender. The questions which these psychometric studies reveal are discussed in the light of personal psychology and recent findings in neuroscience. Whilst this is not the main focus of the study it illustrates the complexity of the issue. Whereas listening responses have been traditionally researched as psychological and sociological phenomena it appears that neurology may play an increasing role in this research. Further research is needed to ascertain the role of physiology in relation to the gendered function of the brain, for example. The focus returns to the field of

experimental aesthetics and constructivist psychology which has applied MDS

techniques as a means to investigate the qualities of the listening response.

I shall now summarise the theories from this literature review which are important

to the overall research and the research question. The idea that meaning in music can

be both inherent and delineated (Gardner, 1973, 1985; Green, 1988) is important

for establishing a methodology which takes into account the participants' perception

of the internal musical properties as well as those responses which are socially

constructed. This means that the design needs to accommodate a wide range of

listening responses. The research acknowledges the place of developmental theories

following Swanwick and Tillman (1986), Swanwick (1994) and Hargreaves and

Galton (1996). These inform the decision to investigate the listening responses of

both children and adults in the roles of pupil and teacher. The idea that context

affects listening responses (Hargreaves and North, 1997) means that collecting data

within the teaching and learning environment will effect the listening experience.

The generic literature on experts and novices (Mayer, 1992, Jeffries et al. 1981)

shows that training effects perception. This informs the decision to take into account

the musical backgrounds of the children in the sample and to include student

teachers with and without specialist training in music. Of particular relevance are the

theories which relate to listening strategies of experts and novices and their

respective analytic and global listening styles, following Lamont after Bamberger

(1998a, 1998b) with respect to pitch, Dowling (1982) with respect to tonal structure

and Smith (1983) with respect to rhythmic parameters. The literature which

demonstrates how these listening responses, styles and strategies (Hargreaves and

Colman, 1981; Pollard-Gott, 1983 Gromko, 1993; Waterman, 1996) are important

for informing the analysis of the data.

In addition, the theory of personal constructs (Kelly, 1955) and the idea that individual differences affect listening informs the research question and the design. The idea that some of these differences may be attributed to gender follows both psychometric studies (Sloboda, 1985; Giomo, 1993) and sociological surveys (Green, 1993, 1997) and means that these effects need to be tested across the sample as well as observed on an individual basis.

These theories therefore set the parameters for the design of the methodology. Of particular importance to the design are the research techniques of multi-dimensional scaling exemplified in the work of Hargreaves and Colman (1981, 1982a) and Hargreaves and Galton and Robinson (1996), and personal construct elicitation following Ward (1984) and Gilbert/Mellor (1990), from which the respective quantitative and qualitative methodologies are developed. These are described in the following chapter.

CHAPTER 3

DEVELOPMENT OF THE METHODOLOGY

In this chapter I set out the design of the methodology. It will investigate children's

and teachers' responses to compositions. Thus far I have examined the literature to

find out how educational and psychological studies approach investigating listeners'

responses to music with the objective of identifying dimensions of aesthetic

perception. Within this context my research question is:

- are there any significant differences in the way children and teachers
  (novices and experts) perceive curriculum music compositions?

- are there differences in these perceptions with respect to age and gender?

- how is language used to express the differences?

I shall describe the design of the methodology informed by aspects of action

research. First is the *role of the researcher*. In many of the studies described above

an approach is adopted in which the researcher is separate from the participants'

educational experience. My research question is asked within the framework of my

role as a teacher involved in teacher education and curriculum development.

Therefore the design for the present study requires a methodology which

investigates listening responses with a dual role for the teacher as researcher. As far

as possible, the research needs to be conducted as part of everyday practice in

school and teacher education.

A second consideration in the design of my research is the type of *listening material*

to be used. In many of the studies set out above, the test material takes an

'atomistic' approach where individual parameters are isolated for investigation e.g.

Lamont (1988a). In such studies the test material is prepared using a uniform synthesised sound on the premise that extra-musical associations and expectations can be eliminated. The tests are administered individually or to a whole class as a short-term activity removed from everyday curriculum practice. Other examples, e.g. Hargreaves (1981, 1982a) demonstrate a design which uses 'real' extracts of recorded music, as opposed to 'test-tones' which are played to groups of trained and untrained musicians and pupils respectively. In my own work (Gilbert/Mellor, 1990) I developed the test material from music which had been composed by children aged 9-18 years. In my previous work (1990) the children heard pieces composed across their age range. The present study extends this approach further to involve the pupils listening to their *own* and their *peers'* compositions. In this way the research design can be *integral* to the teaching curriculum, integrating the role of teacher and researcher in the procedural stage, providing data for analysis and contributing to the participants learning. The design is constructivist as it takes a 'bottom-up' approach, in the way that the test material is literally 'composed' by the participants and in the way that the responses to the music are constructed by the listeners not the researcher.

The rationale for this is stated by Glaser and Strauss (1967) and Loane (1991) who argued that theory be grounded in 'field data'. As Stenhouse (1975) states:

> Now it is one of the problems of theorising that our minds are beguiled by systematic tidiness and comprehensive breadth. Hence, many people believe that the more systematic a theory is, the more likely it is to be correct. In curriculum studies - though perhaps not in the physical sciences - the reverse is likely to be the case. (p. 71)

Loane presents a case for research in an educational context to redress the balance (Woods, 1985) so that ethnographic enquiry provides the starting point from which the constructivist approach proceeds. Loane also acknowledges the place of the theoretical framework in this type of design, which he suggests, should not detail questions or categories in the early stages of enquiry.

A third consideration in the design of the methodology is the way the research takes into account ways of interpreting music. Hitherto, as discussed in the literature review, meaning in music has been investigated in absolute and referential ways. In my research I want to take into account a holistic response to the listening experience within the context of the listening situation in its educational setting. In other words, the design of my research needs to take into account the range of ways a listener approaches the task of perceiving music without setting down a prescription. In this way the design can take into account responses to structural elements in music as well as referential meanings. This approach therefore accommodates how participants construct their *individual* experiences of listening: how we can discover the 'reality' of the music for the listener at a particular time. I therefore developed the design to examine the verbal criteria which pupils and teachers use as a way of investigating dimensions of the aesthetic response.

This is done by using two approaches. The first is a qualitative approach which is used to investigate significant differences across the participants in terms of age, gender and category of response. After psychometric studies in the field of experimental aesthetics, which I described in Chapter 2, I follow the work of Hargreaves, Galton and Robinson (1996) by using multi-dimensional scaling techniques. The second approach follows a qualitative design which aims to preserve the distinctiveness of individual responses as a means to make explicit the language of aesthetic discourse between pupils and teachers. Here I develop the work from Personal Construct Psychology after Ward (1984) and Gilbert/ Mellor (1990). The design follows the rationale that these two paradigms are compatible (Silverman, 1985). On the one hand the quantitative analysis offers the means :

> ... to survey the whole corpus of data ordinarily lost in intensive,
> qualitative research. Instead of taking the researcher's word for it, the reader
> has a chance to gain a sense of the flavour of the data as a whole. In turn,
> the researcher is able to test and to revise his generalisations, removing
> nagging doubts about the accuracy of his impressions about his data.
> (Silverman, 1985 p. 140)

On the other hand the qualitative data fulfils the need to 'help the account live' and 'communicate to the reader through the telling quotation or apt example' (Robson 1993, p. 371). In the conclusion (Chapter 8) I evaluate the effectiveness of this approach.

The research is structured into two main studies, one in school and one in teacher education. In the course of the period of research I returned from a post in Higher Education to a full time post in school to undertake the fieldwork in school which I refer to as **PART I : Pupils' Perceptions of Compositions.** The second study took place within my present post in teacher education and I shall refer to this as **PART II : Teachers' Perceptions of Pupils' Compositions.** I shall now set out the research design in the two parts as it evolved.

PART I: PUPILS' PERCEPTIONS OF COMPOSITIONS

3.1   Pilot Study

Objectives

The pilot research was set up in January 1992. At this time I was working in initial teacher education within a partnership of local schools. The aim of the pilot research was to try out an approach to composition which involved the setting up of a research / composing task within the remit of the National Curriculum. The main objective of the pilot research was to investigate how well upper primary children could describe in words their own music compositions and those of their peers and to evaluate whether this approach could be used for the main study. At this stage I wanted to evaluate how constructs emerged through description rather than through the Kellian 'odd-one-out' technique. My previous research (1989, 1990) demonstrated that upper primary pupils found it difficult to aurally compare and contrast three compositions and to write a comment. Whilst the 'odd-one-out' tool offered one way of eliciting constructs, it also limited the number of compositions

which could be listened to in one sitting by a class. By developing a design which invited a comment for every piece by each pupil, both the broad perceptions of the peer group and also the personal self perceptions of the compositions across age and gender could be accommodated. The pilot study was established to test the possible use of this design.

Participants

A school with an effective music co-ordinator was selected from the partnership primary schools. As I was not in situ as a teacher, it was decided that I should team teach with the music co-ordinator in order to be involved as far as I could in the process, product and evaluation of the work. Fifty Year 5 pupils (ages 9-10 years) were selected for the research activity.

Procedure

The teacher and I designed a 9 week unit of work over half a term which fulfilled the criteria of the music curriculum plan and provided a framework for the pilot study. The children had had some experience of composing in small groups. The teacher's parameters were:

- to design a composition project based on 'Pictures at an Exhibition' by Mussorgsky;

- to implement the unit of work with a whole year group comprising fifty Year 5 (aged 9-10 years) pupils divided into small groups of 2-5 pupils (self selected, including single sex and mixed groups according to friendship groups);

- to develop a titled melodic composition which depicted a picture / mood with a clear structure (beginning, middle, surprise and end) using tuned percussion and electronic keyboards (1 or 2 instruments per group);

- to develop recording skills in terms of representing the work *in process* through words, traditional and graphic notation and *as product* through audio recording;

- to extend the work as a whole class performance by selecting contrasting compositions for the final performance linked by a 'promenade' melody using ideas which the children select on the basis of their appraisal of the original compositions.

As co-teacher and researcher my role was:

- to work alongside the music co-ordinator and the children;

- to document the process over the 9 weeks and relate it to the National Curriculum;

- to record the pupils' compositions at various stages in the process and invite verbal appraisals from the teacher and the children in the form of:

  (a) a brief evaluation of each piece and a mark out of 10

  (b) individual interviews with a selected group;

- to evaluate the effectiveness of the learning in relation to the learning objectives;

- to evaluate the task in terms of effectiveness as a pilot and to inform the main research.

In the course of the unit of work 15 compositions were produced and recorded onto audio tape. In Week 7 the pupils were given a peer and self-assessment sheet and were asked to listen to each composition in turn, write an evaluative comment and give a mark out of 10. In order to preserve the freedom for the children to respond in their own way they were not given any examples nor referred to the teaching objectives. The teacher was also invited to fill in an appraisal sheet.

Between weeks 7-9, I visited the school and interviewed 2 groups of pupils. The interview comprised open - ended questions with the objective of letting the children describe their own composition in their own terms. The interviews were recorded and annotated.

Results

The educational objectives of the project were met in the successful implementation and documentation of the unit of work in relation to the Music National Curriculum. I shall now discuss the results to assess the effectiveness of the appraisal technique which is of particular relevance to the main study.

The results showed that all the pupils in the Year 5 class were able to write down evaluative comments about their own compositions and those of their peers. Although there was a range of literary ability most children wrote down a range of responses. Like Hargreaves (1981a), Ward (1984) and Gilbert/Mellor (1989, 1990) the responses ranged in quality and content. For example, one pupil's responses included simple value judgements e.g. 'O.K.!', 'not very good', responses which isolated particular musical elements e.g. 'I like this one because of its rhythm', responses which included references to style and value e.g. 'good but sounds a bit like pavroty (Pavarotti) music', to more qualitative statements of value e.g. 'I like this tune because it is very imaginative,' 'very enchanting with a good tune'. Taking the sample as a whole it was interesting to see how the children seemed to evaluate the compositions in terms of the features which were salient to each piece as it was heard. In contrast the teacher evaluated the pieces using one schema which related to the structural effectiveness of the melodies. It appeared that whilst the objectives of the lesson had been made explicit in the teaching of the task, they were not reflected in the children's responses. The children chose to evaluate the pieces in a much more varied and imaginative way, showing a range of responses which captured the essence of the meaning of each piece for each individual. One explanation for this might be that the pieces were evaluated a week after they were performed and recorded and so the composing objectives were not currently in their minds. Another explanation might be that the children, when not reminded, were not able to apply the objectives of the composing task and sought their own evaluative schema. Clearly, the children did not consciously give responses which

they thought the teacher wanted, at least as far as the task had been set up, but took ownership of the appraisal process to highlight dimensions of the musical experience which they personally valued or did not value. The richness and diversity of the responses demonstrated criteria which the children used as dimensions of aesthetic appraisal. The pilot study therefore showed that this type of procedure could elicit a range of verbal responses for further analysis. The pilot study also showed the way in which the music co-ordinator, a teacher with music specialist training, responded differently to the children's responses which raised the issue for further investigation in Part II of the main study.

The interviews also ran successfully. The pilot study analysis also showed that the interviews proved an effective way of eliciting constructs. The range and quality of constructs emerged in a similar way. Some children chose a narrative/story approach as a metaphor for describing the momentum of their piece. For example, one pupil described the structure of the music as the 'Spiders Lunch':

> ... well we saw it like a fly, flying around in a house and then there was a
> cobweb up in the corner and the fly wasn't looking where it was going,
> daydreaming, it hit the web and the spider just plodded up to it, ate it and
> just walked back.. and it was dead.

The interviews also contained more responses covering the structural decisions involved in putting the composition together and the roles individuals played in this process. Children with different levels of musical training responded differently in terms of types of responses and their use of vocabulary.

Discussion and Implications for PART I: Main Study

From the pilot study considerations emerged for the design of the main study. The pilot proved that listening responses could be elicited effectively through a written pro forma filled in by each participant for each composition. On this basis I elected not to choose an 'odd-one out' technique which would have limited the number of compositions to be appraised. By choosing a descriptive approach this

meant that all the compositions could be appraised within each class and for each individual. Although the interviews provided interesting insights into the children's composing process and the language used (which could be an area for future research), I found that this method was less successful in eliciting evaluative responses. I therefore decided to reject interviewing for this part of the design and focus on verbal written responses.

Several implications for the *design of the composition task* emerged through the pilot study which led me to impose some further controls on the design. First, the composition task in the pilot research had to a large extent been dictated by the school's music curriculum plans. The composition task had been taught in a structured way through a number of sequential stages i.e. 'beginning, middle, surprise and end' sections. The results showed that whilst the pupils responded without making reference to the structured objectives of the lesson the teacher's responses did. This led me to a consideration of how to set up an appropriate task which was both clear enough for the pupils to achieve the learning objectives of the lesson and which also took account of their relative technical skills. As far as possible I also wanted to design the investigation to ensure that the responses were not just replications of the task. I was also aware that the pupils might try to give 'legitimate' answers which they thought the teacher might expect. In view of this it seemed appropriate to design a composition task for the main research which was not so teacher directed. .

Second, although the pupils were guided through the structure of the composing task, their composition responses were 'open' in so far as they could choose the types of 'picture' they wanted to represent in their music. This task was essentially stimulated from an extra-musical starting point and led to responses which were 'looking' for a story, mood or picture. Whilst I was concerned to accommodate a wide range of responses to music which might include metaphor and extra-musical

images it seemed necessary to find a musical starting point which did not automatically inspire extra-musical responses.

Third, the interviews revealed that within the groups, individuals contributed to the composition process in a number of ways. For example, some had taken on performing roles, others contributed musical ideas, others wrote down the names of the notes. It seemed that the involvement and authorship of the compositions was essentially shared. For the purposes of the self-assessment task I wanted to be able to relate an individual's composition with their own respective responses. On the basis of the pilot work I decided to design individual composing tasks in the main research.

Finally, the composition task in the pilot study focused on melody using tuned percussion instruments and electronic keyboards. Again, the fact that there had been a mixture of instruments may have affected the way the pupils valued the compositions. For example, groups using keyboards had access to a wider range of sounds and keyboards were regarded as 'proper' instruments. From my experience as a teacher of music I thought that this attitude would be particularly prevalent for older pupils participating in the research. For this reason I decided to use keyboards as the sound source in my main research. To further support this decision, in my previous work (1990), which comprised group compositions using vocal, classroom percussion and electronic instruments as test material, I found that to a certain extent the listening responses reflected the types of sound sources used. I was concerned to minimise this effect so that all participants were listening from a similar starting point, at least as far the instrumentation was concerned. In this way the design facilitated responses to go beyond the simple recognition of instruments.

In my previous work (1989, 1990) I used a framework for analysing the listening responses adapted from the APU : Aesthetic Development (1983). The pilot study

identified the need to develop a classification system to code the content of the listening responses for quantitative analysis. The development of the coding scheme and reliability ratings is described in the next section.

The interviews used in the pilot study showed that the musical experience of the pupils played an important part in determining the way they approached the task of composing and the way they described their compositions. As their music teacher I had records of the childrens' musical experience and training in and out of school which are considered in the qualitative design.

3.2   PART I: Main Study

Participants

The development of the methodology in Part I of the main research built on the pilot study. Whereas the pilot study had taken place with one year group, the main research required a larger population. As described in Chapter 1, a main theme of the research was to investigate listening responses across the KS2 - 3 divide. On the basis of the pilot study which used children from year 5 (ages 9-10 years) I elected to use this as the baseline for the Key Stage 2 cohort and to extend the range of pupils to Year 8 (ages 12-13 years) of Key Stage 3.

One school was selected for the main study. It was situated in outer London, and whilst it was fee-paying it was also 'quasi-progressive'. This meant that as Head of Music I had some freedom to develop the music curriculum which could cover aspects of the National Music Curriculum, without being constrained by it, as well as being able to develop a programme for the research. The school was essentially a primary and a small secondary school on the same site. With the exception of certain subjects e.g. Music, P.E., subject teaching was discrete within each school.

It therefore offered an ideal setting to investigate the research question especially as I could run the research consistently as part of the music curriculum with four year groups across Key Stage 2-3 with myself in the role of both teacher and researcher.

For the Main Study : Part I, 154 children took part from ages 9-13 years comprising 78 girls and 76 boys. The sample was taken from Years 5-6 in the Upper Primary School (Upper Key Stage 2) and Years 7-8 of the Secondary School (Key Stage 3).

Table 3.1 shows the distribution of the sample across key stage, age and gender.

Table 3.1
Age and Gender Distribution of the Main Study Sample

Key Stage	Age Range	Girls : n	Boys : n
2	9-11 years	44	42
3	11-13 years	34	34

Procedure

The main study took into account the results of the pilot research and was modified in terms of the curriculum plan and the experience of the pupils. The unit of work comprised a balance of learning activities across Attainment Target 1: Performing and Composing and Attainment Target 2: Listening and Appraising, focusing on a composition task. The learning activities formed the basis for collecting qualitative data and for 6 separate quantitative studies. Whilst the 6 studies are described in full in Chapter 4, I shall now give an overview which shows the development of the design and the relationship of the learning activities to the procedure for eliciting responses and value ratings.

3.3 PART I: Development of the Quantitative Methodology

The first activity was designed as part of the unit of work to ascertain the values and beliefs held by the children about what they felt made a good tune. This was a pre-composing activity and for the purposes of the research was administered in lesson 1 as a written question on a handout (see Appendix 1: Part 1). Without any input from the teacher, the children were asked to write down what they thought made a good tune. The pro formas were collated and used as a basis for the data for **Study 1: What makes a good tune?**

The second activity was a listening test with a written response designed to investigate the children's ratings and responses to four short pre-composed tunes. This introduced the children to the idea of rating and giving reasons for their judgements. The children were asked to listen to the four tunes twice, to rate them in order of merit on a scale 1-3 (3 being the lowest) and to write a written response describing their reasoning on the pro forma (see Appendix 1: Part 2). The tunes were devised and played live by myself as part of the lesson using a Clavinova electronic keyboard. This activity also took place in lesson 1. This provided the data for **Study 2 : Preference Ratings of four tunes** and **Study 3 : Written Responses to Four Tunes.**

The third task was the composing activity itself, where the children were asked to work individually on electronic keyboards and compose what they thought made a good tune. This took into account the findings of the pilot research in the following ways. First, the composing task was presented in an open-ended way. I chose not to direct the task in a series of sequential stages so as not to influence the musical outcome and the subsequent listening responses. Second, the composing starting point was a melodic composition and as such did not have an extra-musical referent. Third, the composing activity was organised on an individual basis and not in

groups, thereby allowing each composition to be identified with each pupil's individual response. Fourth, the school was fortunate to have sufficient keyboards for the children to share one between two. Although there may have been some pair-work influence the children used separate headphones and were asked to work individually on their own tunes. As described in the pilot research, I decided to use keyboards as a means of 'controlling' the sound sources used, so that the children's subsequent responses were not limited to a simple recognition of the instrument. Keyboards also proved to be a highly motivating sound source across the sample age range. For the purposes of the research the pupils were asked to choose their own sound from the sound bank but not to use a rhythm or beat accompaniment. Note names and/or staff notation could be used as a means to map out the tune for performance but this was not obligatory. The children worked on their tunes in lessons 2-3. In lesson 4 each individual performed and recorded their composition on audio tape.

The research takes into account that for many children composing was a new experience. Some had more experience of playing an electronic keyboard than others. The research also acknowledges that some children had piano skills and that this would influence the musical outcome. However, it was considered that the task was equally accessible for all children, open-ended enough to allow individual approaches and age appropriate (in both the instruments used and also the type of task). Equally, the task fulfilled the requirements of the Music National Curriculum and was presented in such a way to encourage pupil ownership of the learning which was synonymous with the school's philosophy of education.

In the final week, lesson 5, the children were invited to appraise their compositions. For research purposes the design investigated the childrens' listening responses to their own composition and those of their peers. In practice the children listened to the recording of their classes' compositions and, in the pause in between each piece,

they gave a mark out of 10 and wrote a reason for their choice on a given pro forma (see Appendix 2). The results were collated and used as a basis for the data for **Study 4 : Children's Rating of their Own Compositions in relation to the Class Mean, Study 5: Children's Scored Self Ratings of their Own Compositions** and **Study 6: Written Responses to Peer Compositions.** The design of the qualitative analysis is reported in a later section of this chapter.

The fieldwork for Part I : Pupils' Perceptions of Compositions, took 5 lessons of 50 minutes duration and was completed across the sample in the course of 2 terms within the academic year 1993-4.

Measures
Development of a Coding scheme

The pilot study identified the need to develop a coding scheme in order to categorise the content of written listening responses in Studies 1, 3 and 6. An initial survey of the data produced 22 categories of response. These were subsequently reduced to five broad categories. These categories are as follows :

1. Musical Elements

Responses in this category refer to the elements of music as defined in the Music National Curriculum. They include references to:

- Pitch
- Duration
- Dynamics
- Tempo
- Timbre
- Texture
- Structure

Responses in this category might include for example, 'it was loud', 'it was short', 'the notes went up and down', 'it had a hollow sound', 'it repeated'.

2. *Style*

In this category responses refer to a stylistic reference, for example, 'it sounds classical', 'it sounds like Jazz', 'it sounded Japanese'.

3. *Mood*

Responses in this category demonstrate an affective response to the music, for example, 'it made me feel happy', 'it was depressing', 'it was spooky'.

4. *Evaluation of Composition*

Responses in this category demonstrate an evaluative statement of the composition itself, for example, 'it was good', 'it was well put together'.

5. *Evaluation of Performance*

Responses in this category refer to an awareness of the qualities of the performance, for example, 'he missed a note', 'it was played well' .

Reliability Study

Based on this category system I selected a sample of 16 (10%) of the participants' responses in Studies 1, 3 and 6 for the reliability study. The sample took a cross section across Key Stage 2 and 3. An initial analysis revealed that responses could contain a number of ideas across the same/different categories. For example, the response '*it is[fast] and [more interesting]*' contains two ideas [in brackets] and would be coded in the categories Musical Elements/duration and Evaluation of Composition respectively. The average number of ideas elicited by each participant in the sample selected was 45, ranging from 20 - 72 ideas across the 3 studies.

Therefore the approximate number of ideas coded for the purposes of agreement was 450. This was considered to be a sufficient percentage of ideas from which to ascertain the reliability. Both myself and an independent rater assessed the sample and collated the ideas in each category for each of the 16 participants across Studies 1, 3 and 6 using the pro forma (see Appendix 3). The total number of ideas in each category for each participant provided the data for the correlation. The results of the correlation are as follows : Musical Elements (r = +0.93, n = 16, p<0.001), Style (r = +0.59, n = 16, p = 0.016), Mood (r = +0.82, n = 16, p<0.001), Evaluation of Composition (r = +0.91, n = 16, p<0.001) and Evaluation of Performance (r = +0.95, n = 16, p<0.001). This demonstrated that there was a significant positive correlation between myself and the independent assessor in all five categories, indicating that the coding scheme allowed a satisfactory level of agreement for further analysis to take place. Chapter 4 describes each study in detail including the respective statistical measures used.

3. 4 PART I : Development of the Qualitative Methodology

The structure of the unit of work provided a set of data which was in essence constructivist i.e. it was grounded in the children's experience. It also provided a multi-method approach. One method collected data in the form of written responses. These included:

- the initial pre-composing task where the children were invited to say what they *thought* made a good tune (Study 1);

- evaluative listening responses to four pre-composed tunes (Study 3);

- evaluative listening responses to their own compositions (Study 6).

A second method collected data in the form of musical compositions. A third method included biographical data referring to the children's involvement in music e.g. if they played an instrument in school or outside school.

The design of the qualitative research both informs and complements the broad survey presented in the quantitative design. Once the initial data had been collected I adopted the approach of 'progressive focusing' as I did not want to confine the outcome of the analysis at this stage. This being said, the coding scheme, was one framework which could be used if appropriate. For the reasons stated in the pilot research I decided not to use interviews as method of collecting data. Therefore the final design of the unit of work triangulated three types of data: responses to compositions, the compositions themselves and the details of the children. At this point the design fulfilled the brief to interconnect two approaches within the methodology. In other words this design offered the means for psychometric investigation at the same time as being open - ended enough to accommodate issues arising through an analysis of responses at an individual level. On the basis of the quantitative and qualitative results a small number of individual case studies could then be selected for further analysis. These results are reported in Chapter 5.

PART II : TEACHERS' PERCEPTIONS OF PUPILS' COMPOSITIONS

3.5 PART II: Development of the Qualitative Methodology

Objectives

Thus far my research has set out the case for investigating experts and novices listening responses to music. It is the objective of my research to apply this within an educational context to investigate whether there are significant differences in the way specialist teachers of music (experts) and generalist teachers (novices) perceive children's compositions.

The design for this part of my thesis derives from Personal Construct Psychology which is applied in two ways : first, as a tool to elicit constructs in response to music composed and second, to select constructs to form a repertory grid. The methodology proceeds from work by Hargreaves, Galton and Robinson (1996), Ward (1984) and my own previous research (Gilbert/Mellor, 1989, 1990) detailed above.

Personal Construct Theory (PCT), now referred to as Personal Construct Psychology (PCP), centres on a theory of personality based on the notion of Personal Constructs defined by Kelly (1955). Robson (1994, p. 287) defines personal constructs as the 'dimensions we use to make sense of, and extend, our experience of the world'. A full description of the theory exists in Fransella and Bannister (1977) and Burr and Butt (1992). I shall now describe the appropriateness of this type of design for this part of my research as follows. First, the philosophy behind PCP is consonant with the philosophy of the research, in that both the theory and the research accept the fact that experience is holistic. Holistic in this context acknowledges the 'wholeness' and uniqueness of an individual's construct system. Experience in Kellian terms is assessed less by the individual's actual experience but more by a person's ability to use the information to reappraise his/her construct system. PCP proposes that it is the learning which comprises experience and 'it is directly related to the revision of the construct system towards relevance and greater understanding' (Gilbert/Mellor, 1989). Therefore, PCP offers a constructivist methodology. Second, PCP offers a methodology for eliciting constructs which can accommodate a wide range of listening responses. In this way it meets the parameters set out at the beginning of this chapter as it accommodates how participants construct their individual experiences of music. In my design it is applied to teachers' experience of listening to pupils' compositions. A third reason why PCP offers an appropriate design is that it accommodates 'test material' which comprises pupils' compositions. This meant that the material could be appraised

within the context of generalist and specialist music teaching in initial teacher education without imposing artificial test conditions. Also the design allowed me to assume the role of both teacher and researcher.

The research acknowledges the complexity of eliciting Kellian bi-polar constructs. For example, two generally accepted bi-polar constructs which hold common public meaning are *'fast'* in dichotomous relation to *'slow'*. However, an individual may demonstrate other more idiosyncratic constructs. For example, *'good'* may not be opposed by the conventional *'bad'*' but by the more differentiated construct *'not as carefully put together'*. Usually, constructs are labelled according to their respective opposite poles, but sometimes these are not easy to identify and name. For example, it would be difficult to conjecture what the opposite of 'boogie' might be. Furthermore, some constructs cannot be verbalised or rationalised, and their respective poles may remain implicit and not expressed. Such constructs rely on a pre-verbal level of ordering. This research acknowledges that the verbal expression of constructs associated with PCP has its limitations. Whereas some studies in the field explore the individual construct systems through a case study approach (e.g. Burnard, 1997), my study applies the technique with the objective of investigating the range of constructs and the common/different constructs used between experts and novice teachers of music. Constructs are selected to form a repertory grid for further data collection and quantitative analysis, the design of which is discussed in the following section. My research acknowledges the current debate (Robson, 1994) and the tension between 'gridding' and the philosophical roots of Kelly's view of personality.

Participants

62 student teachers took part in the study. 36 students were classified as 'experts' i.e. those selected for teacher training on the basis of their specialism in music (an

A' level in music and/or degree in music). Student teachers in this category were drawn from:

- the 4 year B.Ed. Primary Initial Teacher Education Programme with music as their main subject;

- the one year Postgraduate Certificate in Primary Education in with music as their specialist subject;

- the Postgraduate Secondary Certificate in Secondary Education with music as their main teaching subject.

The 'novice' student group comprised 26 student teachers drawn from non-music specialist programmes including:

- the 4 year B.Ed Primary Initial Teacher Education Programme with a main subject other than music;

- the one year Postgraduate Certificate in Primary Education with a main subject other than music;

- the Postgraduate Secondary Certificate in Secondary Education with a main teaching subject other than music.

Procedure

The music that the participants listened to was selected from the recorded examples of the children's compositions as described in PART I above. Six pieces were randomly selected and re-recorded into 2 sets of 3 (Audio Appendix 1). Both experts and novices listened to each set in turn and were asked to fill in the research pro forma (see Appendix 4), making successive choices based on discriminating qualities for 'the odd-one-out'. In this way the design replicates the Kellian technique developed from the repertory grid test, which had previously been used successfully in my previous research (1989, 1990). For this reason I decided not to run a pilot study. Instructions were given consistently by reading a pre-prepared script to the participants (see Appendix 5). Table 3.2 shows examples of some of

the responses produced to the second set of three children's compositions by one expert in the sample.

Table 3.2
Examples of Responses to Set 2

1.	3 is the odd one out because it made full use of the synthesiser.
2.	3 is the odd one out because of the acknowledgement and reconstruction of a popular song.
3.	2 is the odd one out because it was **slow** and had **no concept of time**
4.	2 is the odd one out because it did define between **soft** and **loud**
5.	1 is the odd one out because it had been recreated from a famous classical piece
6.	1 is the odd one out because it had the most understanding of obvious harmony throughout
7.	1 is the odd one out because it is an original composition i.e. doesn't rely much on prior experience
8.	2 is the odd one out because it does not show much understanding of composition

Converting these responses into Kellian bi-polar constructs followed a process of identifying concepts within each response. The process recognised that some responses demonstrated one construct, e.g. **soft** and its bi-polar opposite **loud** (see Figure 3.2 : 4). Other responses contained more than one construct, e.g. **slow** (with its implicit bi-polar opposite - **fast**) and **concept of time** (with its implicit bi-polar opposite - **no concept of time**, see Figure 3.2: 3). The whole sample of responses was analysed in this way and mapped into the 5 categories (see Part I: Development of the Coding Scheme, pp. 90-92) with the purpose of investigating the differences in the way the expert and novice teachers construed meaning in the children's compositions. The results are discussed in Chapter 4.

3.6 PART II: Development of the Quantitative Methodology

Objectives

This part of the study shows how constructs were used to gather data for quantitative analysis. The design comprises 3 studies as follows:

Study 1 : **To Compare the Mean Scores of the use of the Rating Scales for Experts and Novices.**

Study 2 : **To Investigate Levels of Agreement in the use of the Rating Scale between the Experts and Novices when Evaluating the Qualities of 10 Compositions.**

Study 3 : **To Investigate whether Experts used the Rating Scale in Similar or Different Ways across all 10 compositions.**

Participants

The same sample of teachers in training took part as in section 3.5 above.

Procedure

The repertory grid in this study was formed taking account of the constructs used in a similar grid in the DELTA (Development of Learning and Teaching in the Arts) project summarised in Hargreaves, Galton and Robinson (1996). The grid presents 14 of the most common bi-polar constructs elicited by both novices and experts in the 5 categories described above. These are arranged on a 7 point rating scale (see Table 3.3).

Table 3.3: Repertory Grid

not rhythmic								rhythmic
dull								lively
unstructured								structured
limited range								wide ranging
unfamiliar								familiar
not memorable								memorable
not atmospheric								atmospheric
disjointed								flowing
unoriginal								original
not tuneful								tuneful
simple								complex
unfinished								finished
technically unskilful								technically skilful
not appealing								appealing

All participants used this repertory grid to respond to 10 further pupil compositions recorded in Part I of the main research (Audio Appendix 2). The compositions were selected on the basis that they represented a sample across the age range and experience of the children participating in Part I. The task was administered by the researcher and in order to maintain consistency between groups, one minute was allowed between the playing of each composition to allow student teachers to complete the given pro forma (see Appendix 6).

Measures

Chapter 6 describes each of the three studies in detail including the respective

statistical procedures (Donner and Rosner, 1980) used to analyse the data.

3.7 Summary of the Research Design

In this chapter I have set out a methodology which takes into account two designs :

one which derives from qualitative constructivist research following Kelly (1955),

Ward (1984), Gilbert/Mellor (1990), Loane (1991) and Flynn and Pratt (1995), and

one which derives from a positivist tradition which uses statistical measures

following multi-dimensional techniques after Hargreaves and Colman (1981) and

Hargreaves, Galton and Robinson (1996). The design of the methodology is

summarised as follows in Figure 3.1. The respective quantitative and qualitative

analyses of the results of Part I : Pupils' Perceptions of Compositions and Part II :

Teachers' Perceptions of Compositions are presented respectively in Chapter 4, 5

and 6, 7 to follow.

Figure 3.1 : Summary of the Research Design

MAIN STUDY : DESIGN OF THE METHODOLOGY			

PART 1 : PUPILS' PERCEPTIONS : PARTICIPANTS IN SCHOOL
Upper Key Stage 2 (ages 9-11) Girls = 44, Boys = 42
Key Stage 3 (ages 11-13) Girls = 34, Boys = 34

QUANTITATIVE ANALYSIS			QUALITATIVE ANALYSIS
STUDIES	METHODOLOGY		FOCUS
	Effects of Key Stage Gender & Category◆		◆Category Analysis
Study 1: 3-way Anova	What makes a good tune?	Pre-test [Hypothesis] Written responses	1: Musical Elements 2: Style
Study 2: 3-way Anova	Preference Ratings of 4 Tunes	'Control Test' Scores (1-3)of 4 Pre-composed Tunes Written Responses	3: Mood 4. Evaluation of Composition
Study 3: 3-way Anova	Written Responses to 4 Tunes		5. Evaluation of Performance

TEST MATERIAL : Performing and Composing
Children's Electronic Keyboard Compositions ✳

Study 4:	2-way Anova	Childrens' Rating of their Own Compositions in relation to the Class Mean ✳	• qualities identified in compositions
Study 5:	2-way Anova	Children's Scored Self Ratings of their own Compositions (1-10) ✳	• use of language
Study 6:	3-way Anova	Written Responses to Peer Compositions ✳	• role of meta-language

PART II : TEACHERS' PERCEPTIONS : PARTICIPANTS IN TEACHER TRAINING
Experts with specialist training = 36 : Novices = 26

STUDIES	METHODOLOGY	FOCUS
Study 1: Mean scores of the use of the rating scale **Study 2:** Levels of Agreement in the use of the rating scale for each of 10 pieces **Study 3:** Use of the rating scale across all 10 compositions	Application of Personal Construct Theory to: • elicit constructs from 2 Sets of 3 Pieces ✳ • to form a repertory grid • use of repertory grid to evaluate 10 compositions ✳ • averaging correlations	◆ Category Analysis • range of constructs • common constructs • additional constructs for experts and novices separately

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CHAPTER 4

RESULTS OF THE MAIN STUDY

PART I : PUPILS' PERCEPTIONS OF COMPOSITIONS:

QUANTITATIVE ANALYSIS

4.1   Study 1: What Makes a good tune?

Participants

154 children took part in the study (78 girls and 76 boys), drawn from an outer

London school. The age range of the sample was 9-13 years spanning Key Stages

2-3 of the National Curriculum. The pupils were taught by the researcher who was

also their class music teacher.

Design

The study used an independent measures design with all participants involved in all

the conditions of the study. The independent variables were age (referred to as Key

Stage in Table 4.1) and gender. The dependent variable was the score given to the

children's responses in one of the five categories defined in the reliability study.

This is described in Chapter 3. The coding scheme allowed that participants could

get a score of more than 1 in each category. The categories are scored as 1 =

Musical Elements, 2 = Style, 3 = Mood, 4 = Evaluation of Composition, 5 =

Evaluation of Performance.

Procedure

In a single teaching session the children were issued with a blank pro-forma which included the written question 'What makes a good tune?' (see Appendix 1: Part 1). They were asked to fill this in with their answers, using their own ideas, without any discussion or consultation with their peers. They were given unlimited time until all had written their responses. The task was administered by the class teacher who was also the researcher. Silence was observed throughout.

Analysis

The initial analysis of the pupils' written responses used the coding scheme to produce a set of scores for each participant in each of the five categories. A 3-way independent measures ANOVA was used to analyse this data to investigate the possible effects of (a) Key Stage (b) Gender and (c) Category of response. Table 4.1 summarises the results of this analysis.

Results

Table 4.1
Study 1: Summary of Results
What Makes a Good Tune?

	Source of Variance	SS	DF	MS	F	p
Main Effects	Key Stage Gender Category	15.03 4.92 784.05	1 1 4	15.03 4.92 196.01	9.44 3.09 160.27	0.03 ** 0.08 NS 0.001 ***
2 Way Interaction	Gender x Key Stage	3.60	1	3.60	2.26	0.14 NS
	Gender x Category	3.36	4	0.84	0.69	0.60 NS
	Key Stage x Category	90.74	4	22.68	18.55	0.001***
3 Way Interaction	Gender x Key Stage x Category	13.25	4	3.31	2.71	0.03*

* $p<0.05$, ** $p<0.01$, *** $p<0.001$, NS = not significant

The main effect for Key Stage was significant, (F = 9.44, df = 1, p = 0.03),

indicating that there was a significant overall difference between the number of

responses given by the younger Key Stage 2 children and the older Key Stage 3

children. Calculation of the means for this effect (KS 2 = 4.01, KS 3 = 4.43, n =

154) shows that the scores of the older children were significantly higher than those

of the younger ones. The main effect for Gender was not significant, indicating no

significant difference in the way the boys and girls responded. The Category

variable was significant (F = 160.27, df = 4, p <0.001) indicating that there were

overall differences in the distribution of responses across the categories. The mean

number of responses in each of the five categories is shown in Figure 4.1.1.
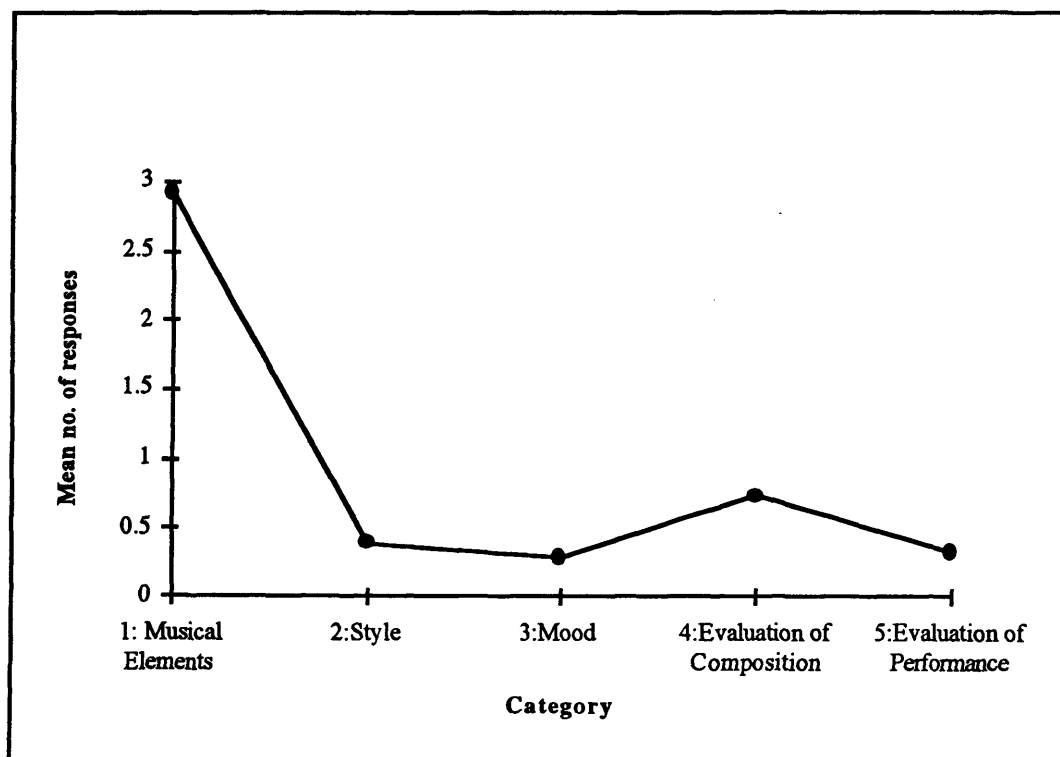
Fig. 4.1.1
Study 1: Main Effect for Category

Table 4.1 Shows that the 2-way interaction between Key Stage and Category was significant (F = 18.55, df = 4, p<0.001). Figure 4.1.2 shows the means for this significant interaction.
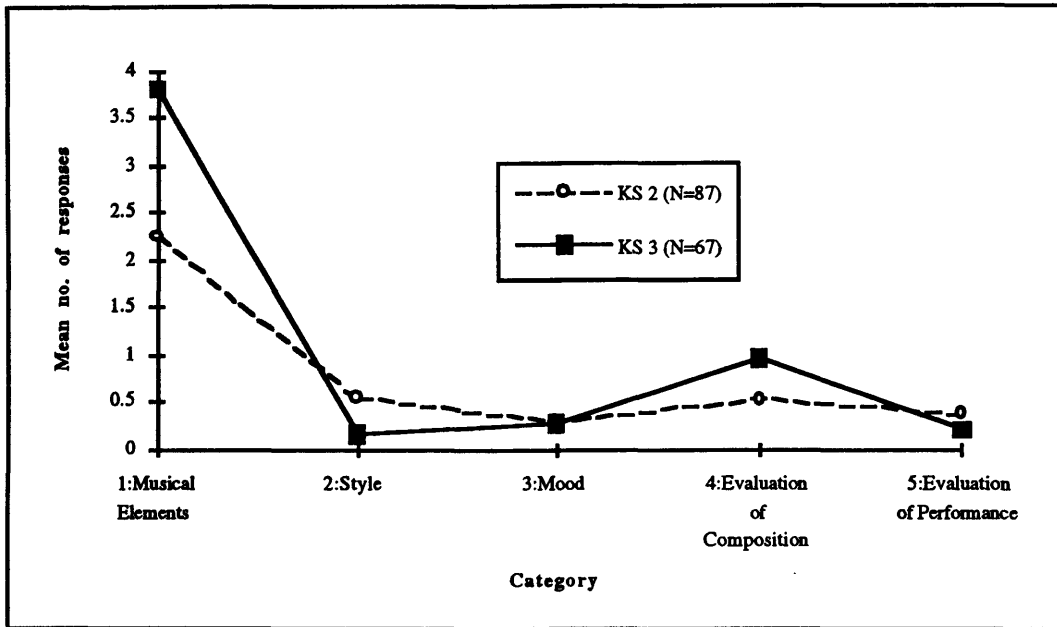
Fig. 4.1.2
Study 1: Interaction between Key Stage and Category

Table 4.1 shows that none of the other 2-way interactions were significant. The 3-way interaction was significant (F = 2.71, df = 4, p = 0.03) and the means are plotted in Fig. 4.1.3.
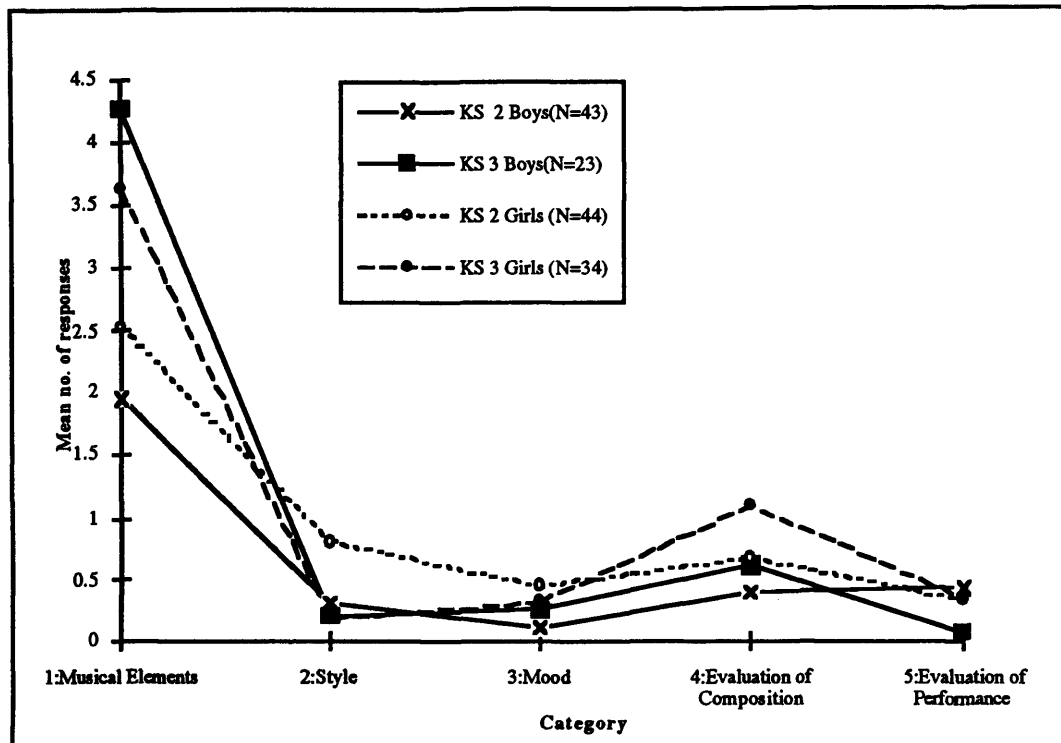
Fig. 4.1.3
Study 1: Interaction between Gender, Key Stage and Category

Discussion

One of the major aims of the study was to find out if there were any significant

differences in the ways the children in the sample responded to the question 'What

makes a good tune?'. The results show that the older Key Stage 3 children

produced more responses than the younger Key Stage 2 children. This trend could

be because as children get older their linguistic development enables them to express

their ideas more fully in written form or because they have more 'ideas'. There were

significant differences in the number of responses scored across the five categories -

Musical Elements (1), Style (2), Mood (3), Evaluation of Composition (4) and

Evaluation of Performance (5). The discussion of the results will consider each

category in turn.

1: Musical Elements

This category scored the largest number of responses across the sample (Figure 4.1.1). The significant 2-way interaction between Key Stage and Category shows that Key Stage 3 children produced significantly more responses than Key Stage 2 children in this category (Figure 4.1.2). This result is in line with the overall trend in this direction i.e. that the older children produced more written responses. Figure 4.1.3 shows the effect of gender. Predictably, the older Key Stage (KS) 3 girls and the older Key Stage 3 boys produced more responses in this category than their younger counterparts. However, it is interesting to see that at Key Stage 2 it is the *girls* who produced the greater number of responses whilst at Key Stage 3 the trend is reversed, showing that the older *boys* produced more responses in this category than the girls. It appears that at Key Stage 2 the girls express themselves to a greater degree using technical musical language whilst at Key Stage 3 it is the boys who refer more to the musical elements. One explanation for this might be that the younger girls were more able to assimilate and use musical technical language at an earlier age than the boys.

Summary

- The **Musical Elements** category accounted for the highest number of responses over the sample;

- KS 3 children make more references to Musical Elements than KS 2 children;

- KS 2 girls make more references to Musical Elements than KS 2 boys;

- KS 3 boys make more references to Musical Elements than KS 3 girls.

2: Style

The results show that this category came third out of the five categories in the number of responses scored. (Figure 4.1.1). The significant 2-way interaction between Key Stage and Category (Figure 4.1.2) shows that more Key Stage 2

children used this category than their older counterparts. One possible explanation for this might be that in the absence of a more precise technical vocabulary the younger children opt to use broader band categories i.e. overall stylistic labels. The 3-way interaction shows how this trend is further qualified with respect to gender. Figure 4.1.3 shows that the younger boys refer to style more than the older boys. This pattern is the same for the girls i.e. younger girls respond in terms of style more than older girls.

Summary

- The results show that the category **Style** came third out of the five categories in the number of responses accounted for;

- KS 2 children make more references to style than KS 3 children;

- KS 2 girls make more references to style than KS 2 boys;

- KS 3 boys make marginally more references to style than KS 3 girls.

3: Mood

This category accounted for the lowest number of responses across the sample (Figure 4.1.1). The interaction between Key Stage and Category (Figure 4.1.2) shows that there was no difference in the mean number of responses in this category i.e. there was no difference with age in their 'mood' responses. This result follows a slightly different pattern than in other categories as the mean number of responses at Key Stage 2 is similar to those for Key Stage 3. If we examine the 3-way interactions we can see the effect of Gender across both Key Stages. At Key Stage 2 the boys produced fewer responses in this category than their older counterparts at Key Stage 3 (Figure 4.1.3). This result is in line with the overall trend in this direction i.e. that older children produced more written responses across the sample. However, for girls the trend is reversed i.e. the younger girls produced more 'mood' responses than the older girls. Looking at Key Stage 2, it is apparent that there is a greater differentiation between how the girls and boys

referred to 'mood'. Key Stage 2 girls referred to mood more readily than Key

Stage 2 boys (Figure 4.1.3). Looking at Key Stage 3, it is apparent that there is a

much less marked difference between how the girls and the boys refer to mood in

their responses. In this case there is only a slight increase in favour of the girls. One

of the assumptions made about girls is that they may respond in a more emotional

way towards the music (Green, 1993) and therefore one of the expectations of the

study was that girls might produce more responses in the 'mood' category than the

boys. Whilst this was confirmed in the results for Key Stage 2 it was not a

significant effect at Key Stage 3. One possible explanation for this might be that the

older children did not consider 'mood' to be an appropriate type of response at this

age or that their thinking about 'what made a good tune' focused on different

aspects.

Summary

- The category **Mood** accounted for lowest responses across the sample;

- KS 2 and KS 3 children make a similar number of references to mood;

- KS 2 boys make less references to mood than KS 3 boys;

- KS 2 girls make more references to mood than KS 3 girls;

- KS 2 girls make more references to mood than KS 2 boys;

- KS 3 girls and boys make a similar number of mood responses - with girls very slightly higher.

4: Evaluation of Composition

The results show that this category came second out of the five categories in the

number of responses scored for 'What makes a good tune?'(Figure 4.1.1). The 2-

way interaction between Key Stage and Category (Figure 4.1.2) shows that Key

Stage 3 children produced more responses in this category than Key Stage 2

children. This result follows the overall trend in this direction emerging in the

analysis. The 3-way interaction (Figure 4.1.3) shows that the Key Stage 3 boys

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produced more responses in this category than Key Stage 2 boys (Figure 4.1.3). This pattern is similar for the girls i.e. Key Stage 3 girls produced more responses in this category. Looking more closely at the responses in this category at Key Stage 2, it is the girls who produce more in this category than the boys. This trend is continued in Key Stage 3, where the girls produce more responses of this type than the boys. One explanation might be that Key Stage 3 children are becoming critical and discriminative thinkers about the qualities of music which they value.

Summary

- The category **Evaluation of Composition** came second out of the five categories in the number of responses scored;

- KS 3 girls and boys make more references to the Evaluation of the Composition than KS 2 girls and boys;

- KS 2 girls make more references to the Evaluation of the Composition than KS 2 boys;

- KS 3 girls make more references to the Evaluation of the Composition than KS 3 boys;

5: Evaluation of Performance

The results show that this category came fourth out of the five categories (Figure 4.1.1). The 2-way interaction between Key Stage and Category shows that marginally more Key Stage 2 children gave responses in this category than Key Stage 3 children (Figure 4.1.2). One possible explanation for this might be that in the absence of a more discriminatory vocabulary the younger children focus their responses on qualities of performance rather on the qualities of the music itself. Another explanation might be that when the children were thinking about music the quality of the performance is more dominant. This is possibly influenced by media images of performance. The 3-way interaction also illustrates this trend, in that the younger Key Stage boys produced more responses in this category than the older Key Stage boys (Figure 4.1.3). There was very little difference between the girls

and boys at Key Stage 3 in the way they referred to the Evaluation of Performance. Marginally more boys than girls responded in this category at Key Stage 2, whilst at Key Stage 3 more girls responded than boys.

Summary

- The category **Evaluation of Performance** came fourth out of the five categories in the number of responses scored;

- KS 2 children make more references to the Evaluation of the Performance than KS 3 children;

- KS 2 boys make more references to the Evaluation of the Performance than Key Stage 3 boys;

- KS 2 boys make more references than KS 2 girls in this category;

- KS 3 girls make more references than KS 3 boys.

4.2   Study 2: Preference Rating of Four Tunes

Participants

140 children completed this part of the study (72 girls and 68 boys) across the age range 9-14 years. They were the same children drawn from the same school as described in Study 1 above.

Design

The study used an independent measures design with all participants involved in all the conditions of the study. The independent variables were age and gender. The dependent variable was the score given to each of the four tunes. Each tune was rated on a scale of 1-3.

Procedure

In the same single teaching session as described in Study 1, the children were presented with 4 two bar tunes on manuscript (see Appendix 1: Part 2). The tunes are described as Tunes 1, 2, 3 and 4 respectively and were devised by the researcher. Each tune was played twice to the children using an electronic keyboard. The children were asked to follow the music for each playing, then rate their preference in the boxes provided out of a score out of 3 where 1 = good, 2 = fair, 3 = poor. The task was administered by the class teacher/researcher.

Analysis

The initial analysis produced a set of ratings for each participant for each of the four tunes. A 3-way independent measures ANOVA was used to analyse the data to investigate the possible effects of (a) Key Stage (b) Gender and (c) Tune. Table 4.2 summarises the results of this analysis.

Results

Table 4.2
Study 2: Summary of Results
Preference Ratings of 4 tunes

	Source of Variance	S S	DF	MS	F	p
Main Effects	Key Stage	0.01	1	0.01	0.02	0.89 NS
	Gender	0.25	1	0.25	0.35	0.55 NS
	Tune	43.94	3	14.65	35.76	0.001 ***
2 Way Interaction	Gender x Key Stage	5.68	1	5.68	8.00	0.01 *
	Gender x Tune	3.25	3	1.08	2.64	0.05 *
	Key Stage x Tune	0.10	3	0.03	0.08	0.97 NS
3 Way Interaction	Gender x Key Stage x Tune	2.10	3	0.70	1.71	0.16 NS

* p<0.05, ** p<0.01, *** p<0.001 , NS = not significant

The main effect for Key Stage was not significant, indicating that there was no significant difference in the way the younger Key Stage 2 children and the older Key Stage 3 children rated the tunes. The main effect for Gender was also not significant indicating that there was no significant difference in the way the boys and girls rated the four tunes. The main effect for Tune was significant, (F = 35.76, df = 3, p<0.001) indicating that there was a significant difference in the ratings for each of the four tunes. Calculation of the means for this effect is shown in Figure 4.2.1.
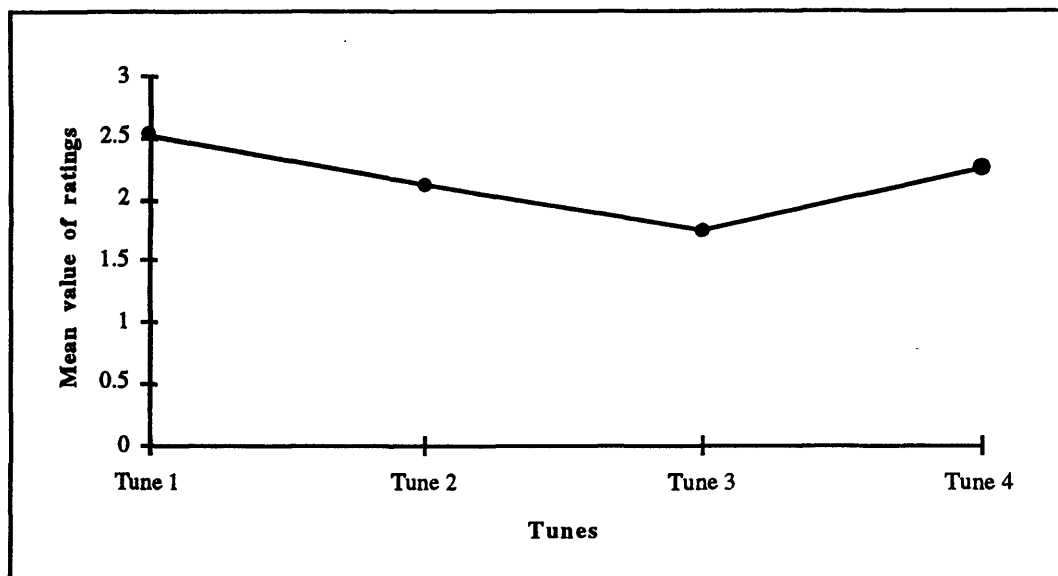
Fig. 4.2.1
Study 2: Main Effect for Tune

Table 4.2. shows that the 2-way interaction between Gender and Key Stage was significant (F = 8.00, df = 1, p = 0.01). Fig. 4.2.2 shows the means for this significant interaction.
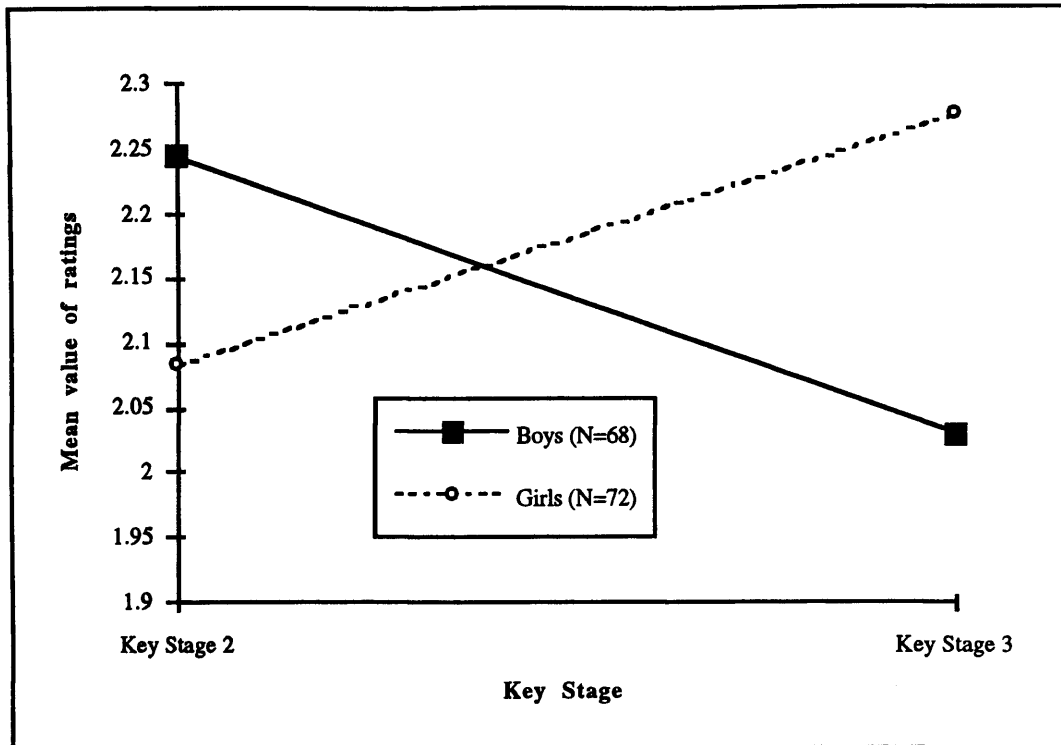
Fig. 4.2.2
Study 2: Interaction Between Gender and Key Stage

Table 4.2 shows that the 2-way interaction between Gender and Tune was significant ($F = 2.64$, $df = 3$, $p = 0.05$). Figure 4.2.3 shows the means for this significant interaction.
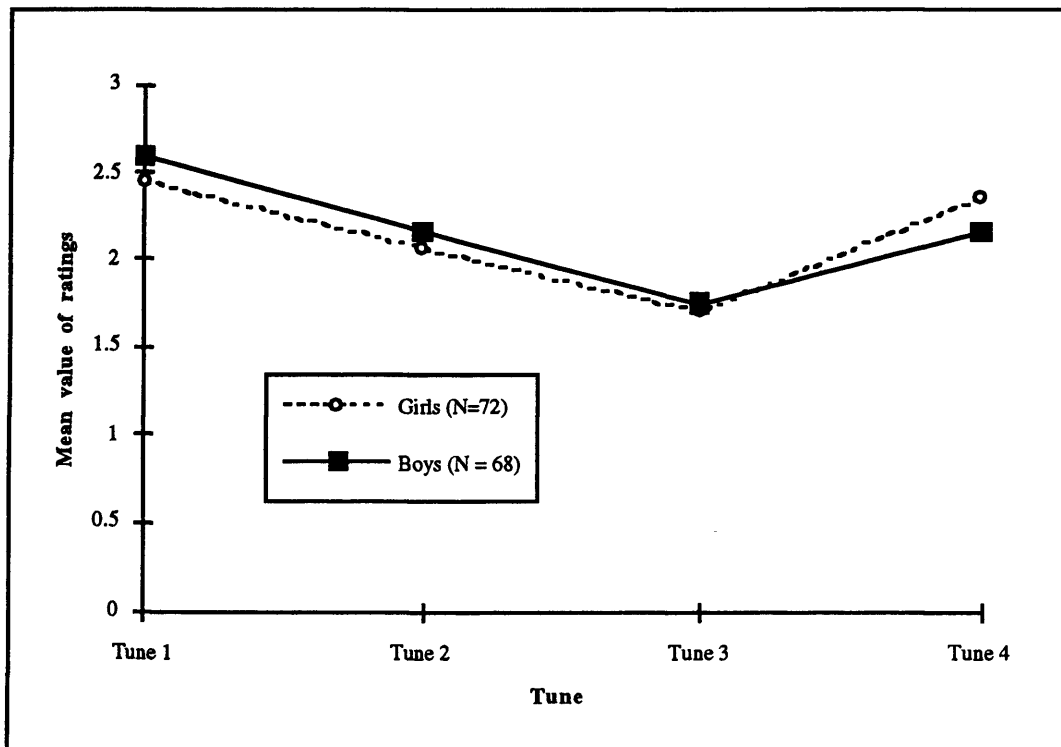
Fig. 4.2.3.
Study 2: Interaction between Gender and Tune

Table 4.2 shows that the interaction between Key Stage and Tune was not significant and that the 3-way interaction between Gender, Key Stage and Category was not significant.

Discussion

One of the aims of this study was to investigate whether there were any significant differences in the way the children rated the four tunes. The results show that there were no significant differences with age and gender but that each tune showed significant preference differences. Figure 4.2.1 shows that the tunes were rated in order of preference starting with the least favourite as follows : Tune 1, Tune 4, Tune 2 and Tune 3.

Tune 1 consisted of an unvaried crotchet rhythm, irregular intervals and did not resolve. It received the consistently lowest rating from both girls and boys across both age groups.

Tune 2 had the same rhythm as Tune 1, intervals grouped in a sequence of falling thirds and it resolved. It came second in the childrens' preferences by both girls and boys across both age groups.

Tune 3 consisted of the same interval structure as Tune 2 but in a different key. The rhythm consisted of a repeated dotted figure. This tune resolved in the same way as Tune 2 and was preferred most by the girls and boys across both age groups.

Tune 4 consisted of the same repeated dotted figure as Tune 3, but was atonal and did not resolve. It came next to last in the ratings of the four tunes by both girls and boys across both age groups.

Whilst Tune 1 and Tune 2 had the same rhythm the prevailing dominant factor in the preference was a greater sense of tonality and resolution. Tunes 2 and 3 had the same tonal structure and the prevailing dominant factor in the preference was the livelier rhythm. Whilst tunes 3 and 4 had the same lively rhythm the dominant factor which affected the preference rating was the contrasting tonality.

From the results it appears that Tunes 1 and 4 were the least preferred. From my own analysis of the music, rather than experimental manipulation of the musical characteristics, these seemed to be the simplest and the most complex respectively and were both characterised by their atonality and lack of resolution. Conversely, the two more favoured tunes (Tunes 2 and 3) seemed to be more tonal and resolved. This pattern of preference did not show any significant difference between the girls and boys and between the two age groups. Figure 4.2.2 shows the significant interaction between Gender and Key Stage. It shows that the younger Key Stage 2 girls used the rating scale 1-3 and produced a significant lower mean rating than their older counterparts. This suggests that they preferred the tunes more than the Key Stage 3 girls. Conversely, the younger boys' scores on the rating scale produced a higher significant mean rating than those of the older boys, indicating a lower preference rating. As the girls get older their mean rating increases which suggests that their preference across all the four tunes declines. As the boys get older their mean ratings decrease suggesting that their preferences across all four tunes increases. One explanation for this might be that the girls' judgement becomes more discriminatory with age. Perhaps the 'tunes' were preferred less by the older girls because they evaluated them within their broader listening experience and out of 'context' i.e. just played on a keyboard as part of a 'listening', they held less personal meaning. Conversely, for the boys, the fact that their preference rating increased might be because they focused their judgements on the musical content of the pieces themselves.

Figure 4.2.3 shows the significant interaction between Gender and Tune. Tune 1 received a similar high mean rating from both the girls and the boys with only a marginal preference shown by the girls. Tune 2 received a slightly lower rating from both girls and boys again with only a marginal preference shown by the girls. Both boys and girls rated Tune 3 the lowest which suggests that this piece was preferred most by both girls and boys. The ratings appear to differ most for Tune 4. Whereas Tunes 1-3 were preferred marginally more by the girls, Tune 4 received a mean rating to suggest that it appeared to be preferred more by the boys.

Given that Tunes 1 and 4 were the simplest and the most complex respectively and were both characterised by their atonality and lack of resolution (see Appendix 1), it appears that the girls showed a marginal preference for the former and the boys the latter. Given that the two more favoured tunes (Tunes 2 and 3) were tonal and resolved it appears that there was very little difference between the way the girls and the boys responded to Tune 2 but that the boys might have appeared to respond particularly to the livelier rhythm of Tune 3. Factors emerging in the children's preference ratings were the respective tunes' complexity in terms of rhythm and tonality. To a certain degree this might be explained by Heyduk's (1975) 'optimum complexity model' which I shall develop further in the final summary of this chapter. The research acknowledges that conclusions regarding responses to specific musical characteristics are tentative and this signals an area for future research which could use both a larger number of pieces as well as experimentally manipulating the material.

4.3   Study 3: Written Responses to Four Tunes

Participants

154 completed this part of the study (78 girls and 76 boys) across the age range 9-13 years. The children were drawn from the same school as described above. The pupils were taught by the researcher who was also their class music teacher.

Design

The study used an independent measures design with all participants involved in all the conditions of the study. The independent variables were age and gender. The dependent variable was the score given to the children's responses in one of the five categories defined in the reliability study. This is described in Chapter 3. The coding scheme allowed that participants could get a score of more than 1 in each category. The categories are scored as 1= Musical Elements, 2 = Style, 3 = Mood, 4 = Evaluation of Composition, 5 = Evaluation of Performance.

Procedure

In the same single teaching session as described in Studies 1 and 2, the children were asked to give a written response to support their preference rating for each of the four tunes using the given pro-forma (see Appendix 1: Part 2) They were asked to write their own ideas, without any discussion or consultation with their peers. They were given unlimited time for each tune until everyone had written their responses. The task was administered by the class teacher/researcher. Silence was observed throughout.

Analysis

The initial analysis of the pupils' written responses used the coding scheme to produce a set of scores for each participant in each of the five categories: 1= Musical Elements, 2 = Style, 3 = Mood, 4 = Evaluation of Composition, 5 = Evaluation of Performance. A 3 -way independent measures ANOVA was used to analyse the data for each of the four tunes to investigate the possible effects of (a) Key Stage (b) Gender and (c) Category. Table 4.3.1 summarises the results of this analysis.

Results

Tune 1

Table 4.3.1
Study 3: Tune 1: Summary of Results
Written Responses to Four Tunes

	Source of Variance	SS	DF	MS	F	p
Main Effects	Key Stage	1.86	1	1.86	7.00	0.01*
	Gender	0.88	1	0.88	3.33	0.07 NS
	Category	178.02	4	44.51	149.00	0.001 **
2 Way Interaction	Gender x Key Stage	0.53	1	0.53	2.00	0.16 NS
	Gender x Category	0.93	4	0.23	0.78	0.54 NS
	Key Stage x Category	2.60	4	0.65	2.18	0.07 NS
3 Way Interaction	Gender x Key Stage x Category	1.69	4	0.42	1.41	0.23 NS

$* p<0.05$, $** p<0.01$, $*** p<0.001$, NS = not significant

The main effect for Key Stage was significant (F = 7.00, df = 1, p= 0.01). Calculation of the means for this effect (KS 2 = 2.16, KS 3 = 2.61) shows that the scores of the older children were significantly higher than those of the younger

children. The main effect for Gender was not significant, indicating no significant difference in the ways the boys and girls responded to Tune 1. The Category variable was significant ($F = 149.00$, $df = 4$, $p<0.001$) indicating that there were overall differences in the distribution of responses across the categories. The mean number of responses in each of the five categories is shown in Figure 4.3.1.
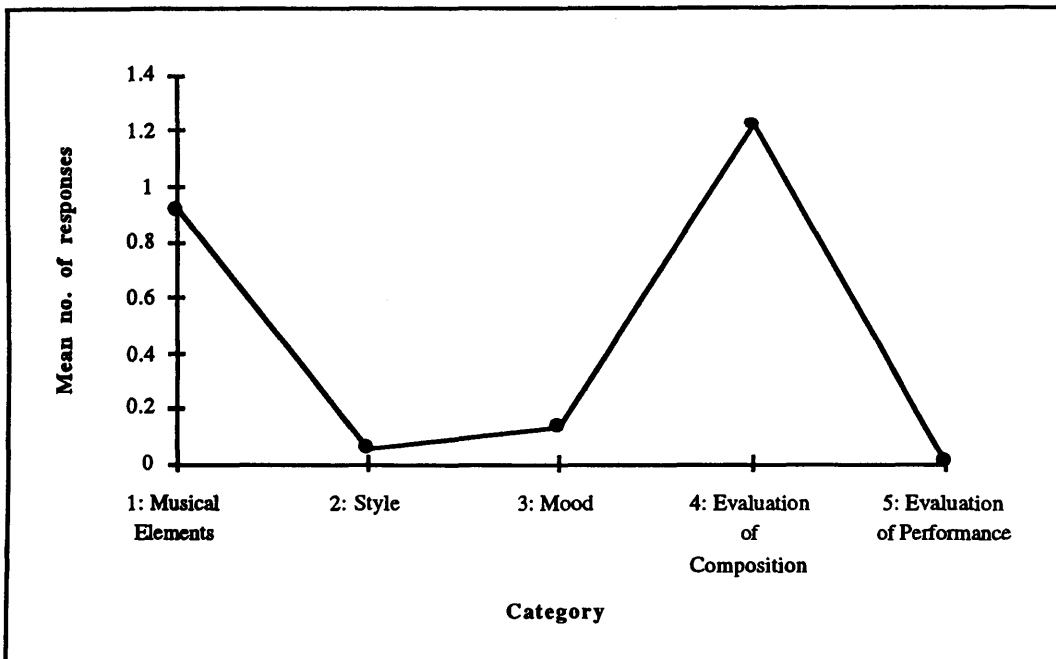
Fig. 4.3.1
Study 3: Tune 1: Main Effect for Category

Table 4.3 shows that not one of the 2-way interactions, nor the 3-way interaction was significant.

Discussion

Predictably, the older Key Stage 3 children produced more responses than the younger Key Stage 2 children. This trend is emerging throughout the results and could be accounted for by the fact that as the children become linguistically more fluent with age they produce fuller written responses with more 'ideas'.

There were significant differences in the number of responses scored across the five

categories for Tune 1. From Figure 4.3.1 the order of responses across the

categories starting with the highest is : Evaluation of Composition (4), Musical

Elements (1), Mood (3) , Style (2) and Evaluation of Performance (5). One possible

explanation for the distribution of the responses in this way is the specific character

of Tune 1 itself. Tune 1 consisted of an unvaried crotchet rhythm, irregular intervals

and an unresolved ending. Bearing in mind its particular composition, it follows

that the children responded firstly in terms of an evaluative statement and then in

terms of the way the musical elements have been used.

Tune 2

Table 4.3.2 summarises the results of this analysis.

Table 4.3.2
Study 3: Tune 2: Summary of Results
Written Responses to Four Tunes

	Source of Variance	SS	DF	MS	F	p
Main Effects	Key Stage	1.51	1	1.51	8.01	0.005 **
	Gender	0.32	1	0.32	1.72	0.19 NS
	Category	122.31	4	30.58	94.43	0.001 ***
2 Way Interaction	Gender x Key Stage	2.14	1	2.14	11.29	0.001 ***
	Gender x Category	0.91	4	0.23	0.70	0.59 NS
	Key Stage x Category	2.27	4	0.57	1.75	0.14 NS
3 Way Interaction	Gender x Key Stage x Category	1.85	4	0.46	1.43	0.22 NS

* p<0.05, ** p<0.01, *** p<0.001 , NS = not significant

The main effect for Key Stage was significant, (F = 8.01, df = 1, p = 0.005) indicating that there was a significant overall difference between the responses given by the younger Key Stage 2 children and the older Key Stage 3 children. Calculation of the means for this effect (KS 2 = 1.94, KS 3 = 2.38, N = 65) shows that the scores of the older children were significantly higher than those of the younger ones. The main effect for Gender was not significant. The Category variable was significant (F = 94.43, df = 4, p <0.001) indicating that there were overall differences in the distribution of responses across the categories. The mean number of responses in each of the five categories is shown in Figure 4.3.2.
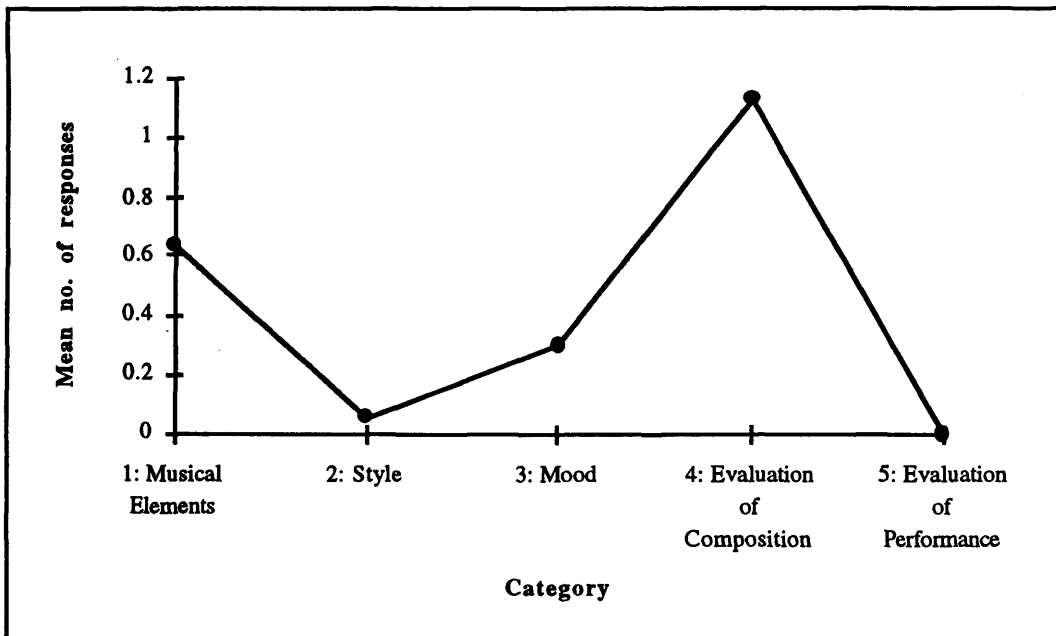
Fig. 4.3.2
Study 3: Tune 2: Main Effect for Category

Table 4.3 shows that the 2-way interaction between Gender and Key Stage was significant (F = 11.29, df = 1, p<0.001). Figure 4.3.3 shows the means for this significant interaction.
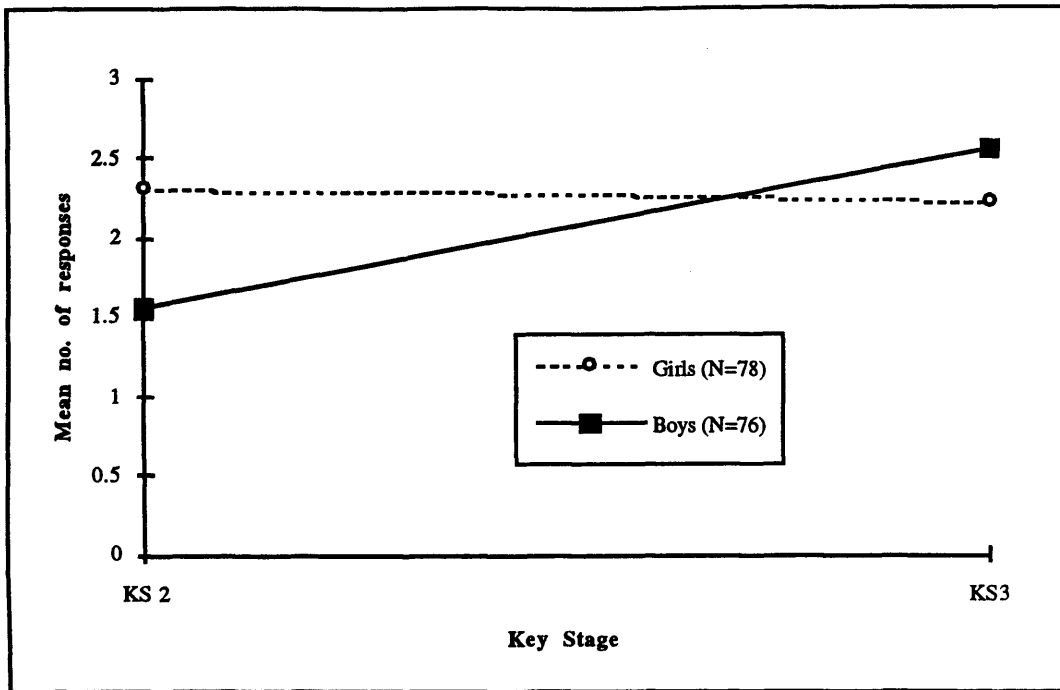
Fig. 4.3.3
Study 3: Tune 2: Interaction between Gender and Key Stage
Not one of the other 2-way interactions, nor the 3-way interaction was significant.

Discussion

One of the aims of this part of the study was to find out if there were any significant

differences in the way the children in the study responded to Tune 2. The results

follow a similar trend to Tune 1 showing that the older Key Stage 3 children

produced more responses than the younger Key Stage 2 children.

There were significant differences in the number of responses scored across the five

categories for Tune 2. Figure 4.3.2 shows that the order of responses across the

categories (starting with the highest) is the same as that for Tune 1 i.e. Evaluation of

Composition (4), Musical Elements (1), Mood (3) , Style (2) and Evaluation of

Performance (5). Tune 2 had the same rhythm as Tune 1 but the intervals were

grouped in a sequence of falling thirds with a final resolution. It is interesting to see

that the mean for Mood responses was slightly higher for this tune than for Tune 1

which seems to be determined by the effect of the pitch sequence and resolution on

the respondents. As the characteristic feature of this tune was the falling sequential

movement at the interval of a third, it would seem that this quality in the music

inspired more responses by the younger Key Stage 2 girls and the older Key Stage

3 boys although as we have seen from Study 2, this does not relate to preference

since Tune 2 was rated higher by the girls. One explanation might be that the pitch

sequence was distinctive, familiar and immediately recognisable.

Tune 3

Table 4.3.3 summarises the results of this analysis.

Table 4.3.3
Study 3: Tune 3: Summary of Results
Written Responses to Four Tunes

	Source of Variance	SS	DF	MS	F	p
Main Effects	Key Stage	4.63	1	4.63	11.80	0.001 ***
	Gender	2.61	1	2.61	6.65	0.01 *
	Category	51.30	4	12.83	34.87	0.001 ***
2 Way Interaction	Gender x Key Stage	0.05	1	0.05	0.13	0.72 NS
	Gender x Category	1.66	4	0.42	1.13	0.34 NS
	Key Stage x Category	4.99	4	1.25	3.39	0.01 **
3 Way Interaction	Gender x Key Stage x Category	4.66	4	1.17	3.17	0.01 *

* p<0.05, ** p<0.01, *** p<0.001 , NS = not significant

The main effect for Key Stage was significant (F = 11.80, df = 1, p < 0.001)

indicating that there was a significant overall difference between the responses given

by the younger Key Stage 2 children and the older Key Stage 3 children.

Calculation of the means for this effect (KS 2 = 1.81, KS 3 = 2.69) shows that the scores of the older children were significantly higher than those of the younger ones. The main effect for Gender was also significant, (F = 6.65, df = 1, p = 0.01) indicating that the girls responded differently to Tune 3 than the boys. Calculation of the means for this effect (Girls = 2.51, N = 72; Boys = 1.86, N = 66) shows that the girls produced the greater number of responses. The Category variable was also significant (F = 34.87, df = 4, p< 0.001) indicating that there were overall differences in the distribution of responses across the categories. The mean number of responses in each of the five categories is shown in Figure 4.3.4.

Fig. 4.3.4
Study 3: Tune 3: Main Effect for Category

The 2-way interaction between Key Stage and Category was significant (F = 3.39, df = 4, p = 0.01). Figure 4.3.5 shows the means for this significant interaction.
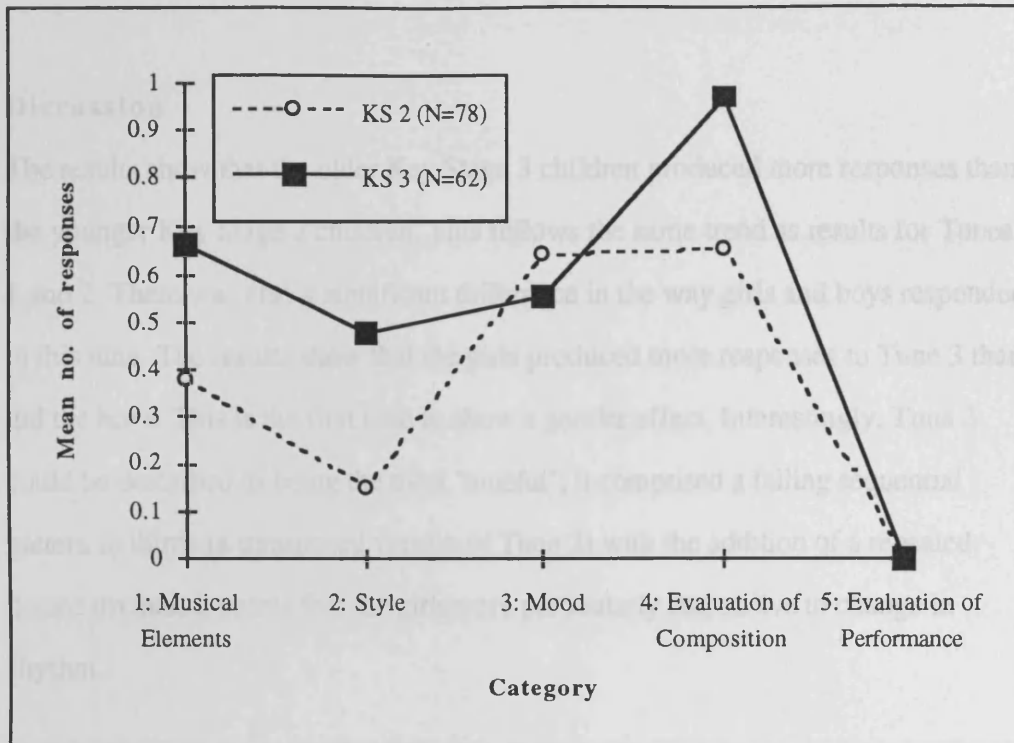
Fig. 4.3.5
Study 3: Tune 3: Interaction between Key Stage and Category

The 3-way interaction between Gender, Key Stage and Category was significant, (F = 3.17, df = 4, p = 0.01) and this is plotted in Figure 4.3.6.
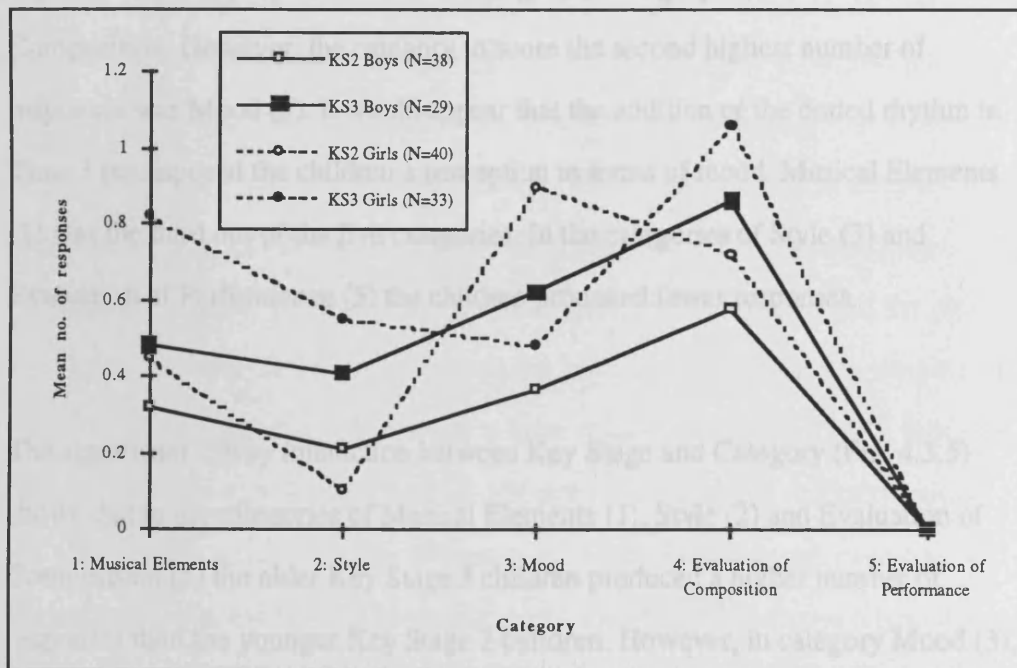
Fig. 4.3.6
Study 3: Tune 3: Interaction between Gender, Key Stage and Category

Discussion

The results show that the older Key Stage 3 children produced more responses than the younger Key Stage 2 children. This follows the same trend as results for Tunes 1 and 2. There was also a significant difference in the way girls and boys responded to this tune. The results show that the girls produced more responses to Tune 3 than did the boys. This is the first tune to show a gender effect. Interestingly, Tune 3 could be described as being the most 'tuneful'; it comprised a falling sequential pattern in thirds (a transposed version of Tune 2) with the addition of a repeated dotted rhythm. It seems that the girls were particularly responsive to change in rhythm.

There were significant differences in the number of responses scored across the five categories. Figure 4.3.4 shows how these responses are distributed. There was a different distribution of responses to Tune 3 in comparison to Tunes 1 and 2. The highest number of responses scored was again in category (4), Evaluation of Composition. However, the category to score the second highest number of responses was Mood (3). It would appear that the addition of the dotted rhythm in Tune 3 predisposed the children's perception in terms of mood. Musical Elements (1) was the third out of the five categories. In the categories of Style (3) and Evaluation of Performance (5) the children produced fewer responses.

The significant 2-way interaction between Key Stage and Category (Fig. 4.3.5) shows that in the categories of Musical Elements (1), Style (2) and Evaluation of Composition (4) the older Key Stage 3 children produced a higher number of responses than the younger Key Stage 2 children. However, in category Mood (3), the pattern was reversed in that the younger children produced more responses. One possible explanation for this might be that the younger children were more

responsive to the 'mood' quality of the music which is characterised in Tune 3 by its lively dotted rhythmic character.

The 3-way interaction between Gender, Key Stage and Category shows how the younger Key Stage 2 boys followed a similar pattern of response to the older Key Stage 3 boys across the five categories. This pattern is similar in the distribution of responses across the five categories but differs in the way that the older boys, predictably, produced more responses than did the younger boys. The pattern of responses starting with the highest was Evaluation of Composition (4), Mood (3), Musical Elements (1), Style (2) and Evaluation of Performance (5).

The pattern of responses shows that to Tune 3 the girls more readily responded in terms of Musical Elements(1). Figure 4.3.6 shows how this is further qualified. The greatest difference was the way in which the younger Key Stage 2 girls responded particularly in the Mood category to Tune 3. It is interesting to note that the older girls gave the least number of responses in this category. In the Category of Musical Elements (1) the older girls gave more responses than the younger girls. The older boys and younger girls showed a similar number of responses whilst the younger Key Stage 2 boys gave the least number of responses in this category. The responses in Style (2) showed a different distribution between gender and age. Predictably, the older children gave the greater number of responses and the girls gave more responses in this category than the boys. In the younger Key Stage 2 age group however it was the boys who gave more responses than the girls in terms of style. There were very few responses in the category Evaluation of Performance (5). One possible explanation for this might be that as each tune was played by the teacher on the electric keyboard using the same sound and at the same tempo, there was very little performance quality on which to base an evaluative response. The

design of the study was such that the focus for the responses could therefore lie in the music itself.

Tune 4

Table 4.3.4 summarises the results of this analysis.

Table 4.3.4
Study 3: Tune 4: Summary of Results
Written Responses to Four Tunes

	Source of Variance	SS	DF	MS	F	p
Main Effects	Key Stage	0.24	1	0.24	1.11	0.294 NS
	Gender	3.77	1	3.77	17.76	0.001 ***
	Category	96.22	4	24.05	90.18	0.001 ***
2 Way Interaction	Gender x Key Stage	0.03	1	0.03	0.13	0.715 NS
	Gender x Category	4.86	4	1.22	4.56	0.001 ***
	Key Stage x Category	1.73	4	0.43	1.62	0.167 NS
3 Way Interaction	Gender x Key Stage x Category	0.96	4	0.24	0.90	0.463 NS

* $p<0.05$, ** $p<0.01$, *** $p<0.001$, NS = not significant

The main effect for Key Stage was not significant. The main effect for Gender was significant ($F = 17.76$, $df = 1$, $p <0.001$) indicating that there was a significant difference in the way the girls and boys responded to Tune 4. Calculation of the means for this effect (Girls = 2.41, N = 71; Boys = 1.58, N = 66) shows that the girls produced more responses than the boys. The main effect for Category was also significant ($F = 90.18$, $df = 4$, $p <0.001$) indicating that there were overall differences in the distribution of the responses across the categories. The mean number of responses in each of the five categories is shown in Figure 4.3.7.
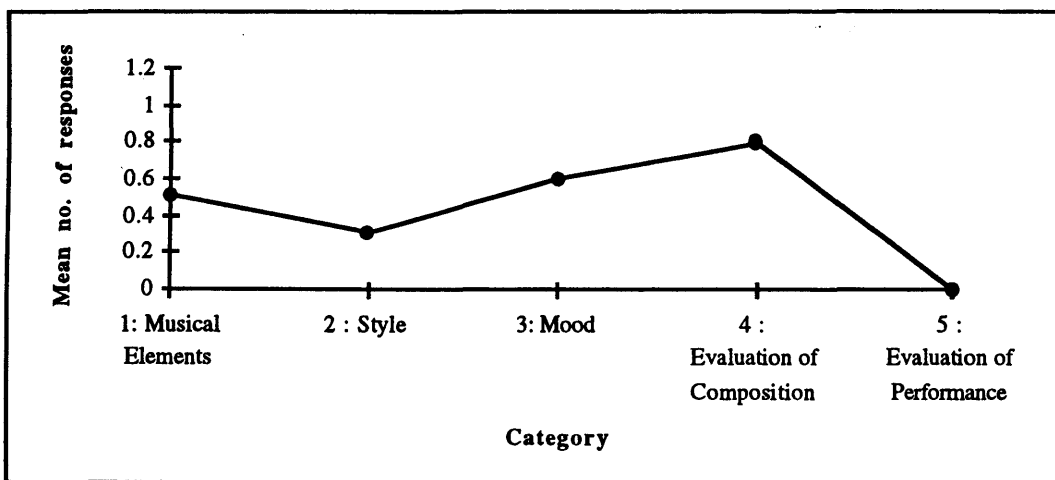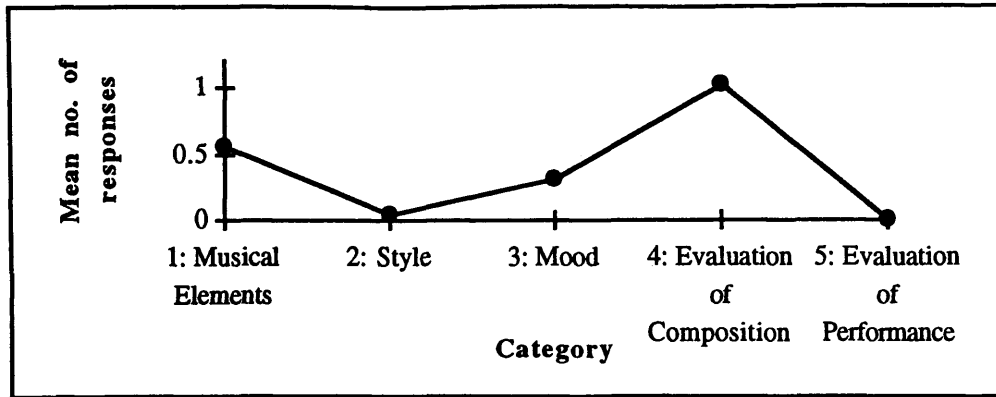
Fig. 4.3.7
Study 3: Tune 4: Main Effect for Category

The 2-way interaction between Gender and Category was significant ($F = 4.56$,

$df = 4$, $p < 0.001$). Figure 4.3.8 shows the means for this significant interaction.
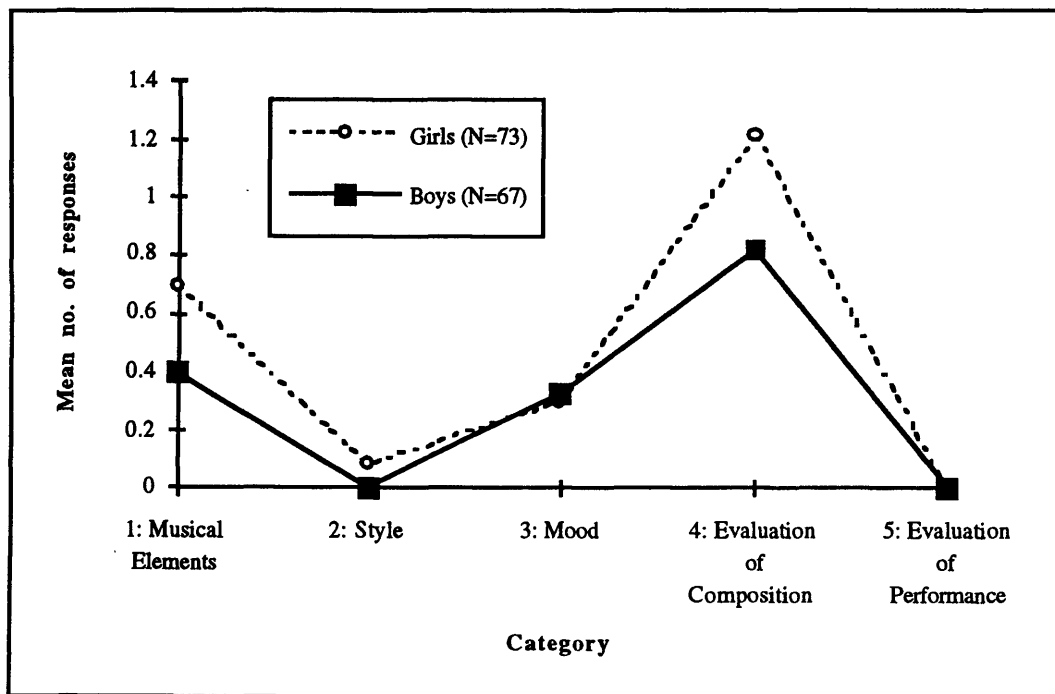
Fig. 4.3.8
Study 3: Tune 4: Interaction between Gender and Category

None of the other 2-way interactions, nor the 3-way interaction was significant.

Discussion

The results show that there was no significant difference with age. However, there

was a difference in the way the boys and girls responded to Tune 4. The results

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confirm that, as with the responses to Tunes 1-3, the girls produced a greater number of responses than the boys.

There were significant differences in the number of responses scored across the five categories. The results show a similar overall pattern as that for Tunes 1-3. Again the category which received the highest number of responses was Evaluation of Composition (4). The categories which follow in decreasing number of size are Musical Elements (1), Mood (3), Style (2) and Evaluation of Performance (5).

Figure 4.3.8 shows the effect of gender across the five categories. In the categories of Musical Elements (1), Style (2) and Evaluation of Composition (4) the girls produced more responses than the boys. Girls and boys produced the same mean number of responses in the categories of Mood (3) and Evaluation of Performance (5).

4.4   Study 4:   Children's Rating of their Own Composition in relation to the Class Mean

Participants

The same sample of children took part in the study as described in the studies above.

Design

The study used an independent measures design with all participants involved in all the conditions of the study. The independent variables were age and gender. The dependent variable was the 'difference score' calculated by taking each pupil's rating from 1-10 of their own composition in relation to the average rating given to that composition by the rest of the class.

Procedure

In a single teaching session the children listened to an audio recording of their class compositions. The compositions had been composed individually at the electronic keyboard to the instruction, "Now it is your turn to compose what you think makes a good tune. Improvise, refine and make a final version ready to perform for recording". Each class was given the equivalent of two 50 minute lessons in which to complete the composing task and an audio tape of the final versions was recorded. For this set of data the children listened to each 'tune' composition once. After each playing we paused the tape to give the children time to fill in a blank pro-forma (see Appendix 2). They were asked to rate each composition, including their own, out of 10. Silence was observed throughout the rating period and sufficient time was given to allow each child to complete the rating.

Analysis

The initial analysis produced a set of scores for each participant for their own composition in relation to the class mean. A 2-way independent measures ANOVA was used to analyse this data to investigate the possible effects of (a) Gender and (b) Key Stage. Table 4.4 summarises the results of this analysis.

Results

Table 4.4
Study 4: Summary of Results
Children's rating of their own composition in relation to the class mean.

	Source of Variance	SS	DF	MS	F	p
Main Effects	Key Stage	1423.58	1	1423.58	0.89	0.35 NS
	Gender	1087.12	1	1087.84	0.68	0.41 NS
2 Way Interaction	Gender x Key Stage	1729.59	1	1729.59	1.08	0.30 NS

* p<0.05, ** p<0.01, *** p<0.001 , NS = not significant

None of the main effects were significant indicating that there were no differences with age or gender in the way which the children rated their own compositions in relation to their class peers. The 2-way interaction was also not significant.

Discussion

The aim of this study was to investigate whether the children rated their own compositions in a similar or different way in relation to the mean rating for their class. The results show that there were no significant differences in the children's rating of their own pieces in relation to each class mean. This might be accounted for by the fact that individuals within each class rated their peers' compositions with a general level of consensus. In other words, each class could rate the pieces consistently. If this is the case it could be that each class used a similar set of criteria which they applied consistently or that other factors, such as peer popularity, played a part in affecting their judgements.

4.5 Study 5: Children's Scored Self Ratings of their Own Compositions

Participants

The same sample of children took part in the study as described in the studies above.

Design

The study used an independent measures design with all participants involved in all the conditions of the study. The independent variables were age and gender. The dependant variable was the score out of 10 given by the children to their own compositions.

Procedure

The procedure is the same as described in Study 4 above.

Analysis

The initial analysis produced a set of scores for each participant. Unlike the previous study (4.4) this study does not compare the children's score with the class mean. A 2-way independent measures ANOVA was used to analyse this data to investigate the possible effects of (a) Gender and (b) Key Stage. Table 4.5 summarises the results of this analysis.

Results

Table 4.5
Study 5: Summary of Results
Children's ratings of their own compositions

	Source of Variance	SS	DF	MS	F	p
Main Effects	Key Stage	16.19	1	16.14	1.79	0.18 NS
	Gender	78.07	1	78.75	8.75	0.01 **
2 Way Interaction	Gender x Key Stage	37.58	1	37.57	4.17	0.04 *

* p<0.05, ** p<0.01, *** p<0.001 , NS = not significant

The main effect for Key Stage was not significant, indicating that there was no significant difference between the way the younger Key Stage 2 children and the older Key Stage 3 children rated their own compositions. The main effect for Gender was significant (F = 8.75, df = 1, p = 0.01) indicating that there was a difference in the way the girls and boys rated their own compositions. Calculation of the means for this effect (Girls = 5.33, N = 53; Boys = 6.97, N= 50) shows that the boys gave higher scores to their own compositions than did the girls. The 2-way interaction between Gender and Key Stage was significant (F = 4.17, df = 1, p < 0.05). Figure 4.5.1 shows the means for this significant interaction.
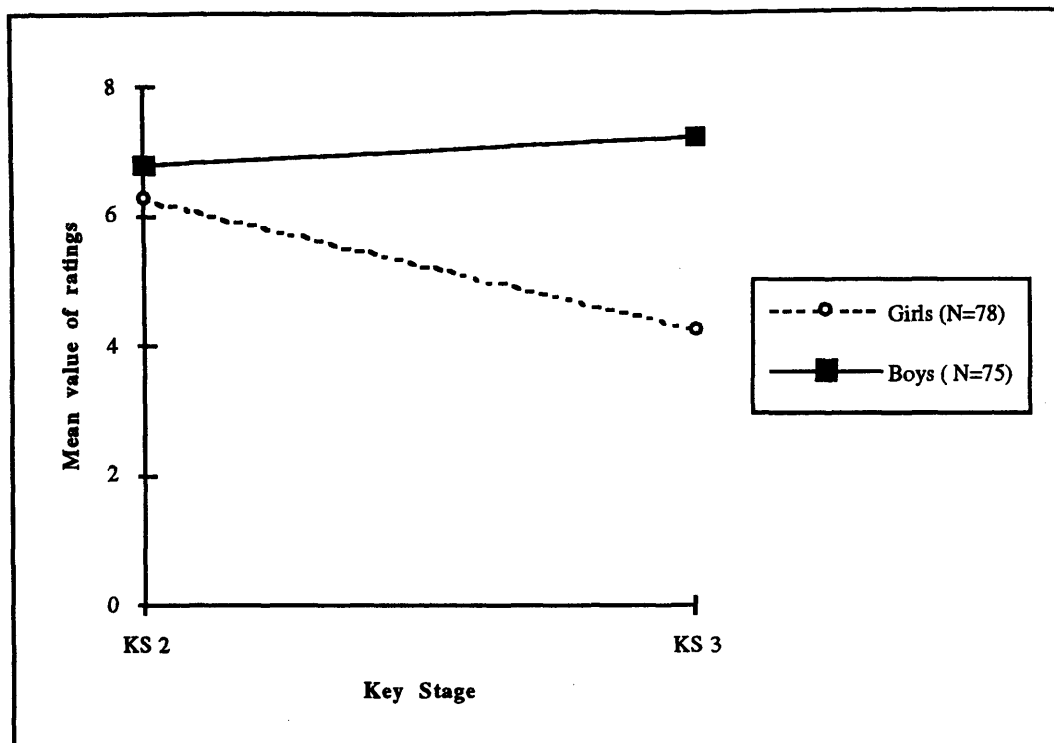
Fig. 4.5.1
Interaction between Gender and Key Stage

Discussion

One of the main aims of this part of the study was to find out if there were any significant differences in the ways the children rated their own personal compositions. The results show that the boys' self ratings of their own work is higher than the girls. If we examine the 2-way interaction (Figure 4.5.1) we can see that whereas the boys' self rating increases with age that of the girls significantly decreases with age. The older girls may have down-rated their compositions because they were applying more stringent criteria for success and using increasing discriminatory judgements. Another possible reason for this might be associated with the effects of adolescence where girls are seen to 'put themselves down' (Murphy and Elwood, 1997). If older girls' compositions are perceived by themselves in terms of relating to their own self identity, and for some this decreases at this age, this might affect their preference ratings of their own work. Conversely, the boys' rating of themselves is more consistent between the younger Key Stage 2 age group and the older Key Stage 3 age group, suggesting that the

combinations of the effects described above may have less impact on the boys' preference ratings for their own compositions.

4.6 Study 6: Written Responses to Peer Compositions

Participants

153 children completed this part of the study across the sample age range 9-13 years. The children were drawn from the same school as described in the studies above.

Design

The study used an independent measures design with all participants involved in all the conditions. The independent variables were age and gender. The dependant variable was the score given to the children's responses in one of the categories defined in the reliability study. The coding scheme allowed that the participants could get a score of more than 1 in each category. The categories are scored as 1 = Musical Elements, 2 = Style, 3 = Mood, 4 = Evaluation of Composition, 5 = Evaluation of Performance.

Procedure

In the same single teaching session described in Study 4 and 5 the children were asked to give a written response to support their preference rating of each of their peers' compositions on the pro-forma provided (see Appendix 2). They were asked to write down their own ideas without any discussion or consultation with their peers. The children were given enough time in-between each composition to complete their written responses. The task was administered by the class teacher/researcher. Silence was observed throughout.

Results

A 3-way independent measures ANOVA was used to analyse the data to investigate the possible effects of (a) Key Stage, (b) Gender and (c) Category of response. Table 4.6 summarises the results of this analysis.

Table 4.6
Study 6: Summary of Results
Written Responses to Peer Compositions

	Source of Variance	SS	DF	MS	F	p
Main Effects	Key Stage	559.38	1	559.38	13.23	0.001 ***
	Gender	205.56	1	205.56	4.86	0.029 *
	Category	25288.26	4	6322.06	4.06	0.001 ***
2 Way Interaction	Gender x Key Stage	2.98	1	2.98	0.07	0.791 NS
	Gender x Category	368.98	4	92.25	4.06	0.003 **
	Key Stage x Category	1246.8	4	311.70	13.71	0.001 ***
3 Way Interaction	Gender x Key Stage x Category	74.78	4	18.70	0.82	0.511 NS

* p<0.05, ** p<0.01, *** p<0.001 , NS = not significant

The main effect for Key Stage was significant (F = 13.23, df = 1, p <0.001), indicating that there was a significant overall difference between the responses given by the younger Key Stage 2 children and the older Key Stage 3 children. Calculation of the means for this effect (KS 2 = 25.13, KS 3 = 33.34, N = 153) shows that the scores of the older children were significantly higher than those of the younger ones. The Gender variable was also significant (F = 4.86, df = 1, p < 0.05) indicating that there was an overall difference in the way the boys and girls responded to their peers compositions. Calculation of the means for this effect (Girls = 31.5, Boys = 25.8, N = 155) shows that the girls produced more

responses than the boys. The main effect for Category was also significant ($F = 4.06$, $df = 4$, $p < 0.001$) indicating that there were overall differences in the distribution of responses across the categories. The mean number of responses in each of the five categories is shown in Figure 4.6.1.
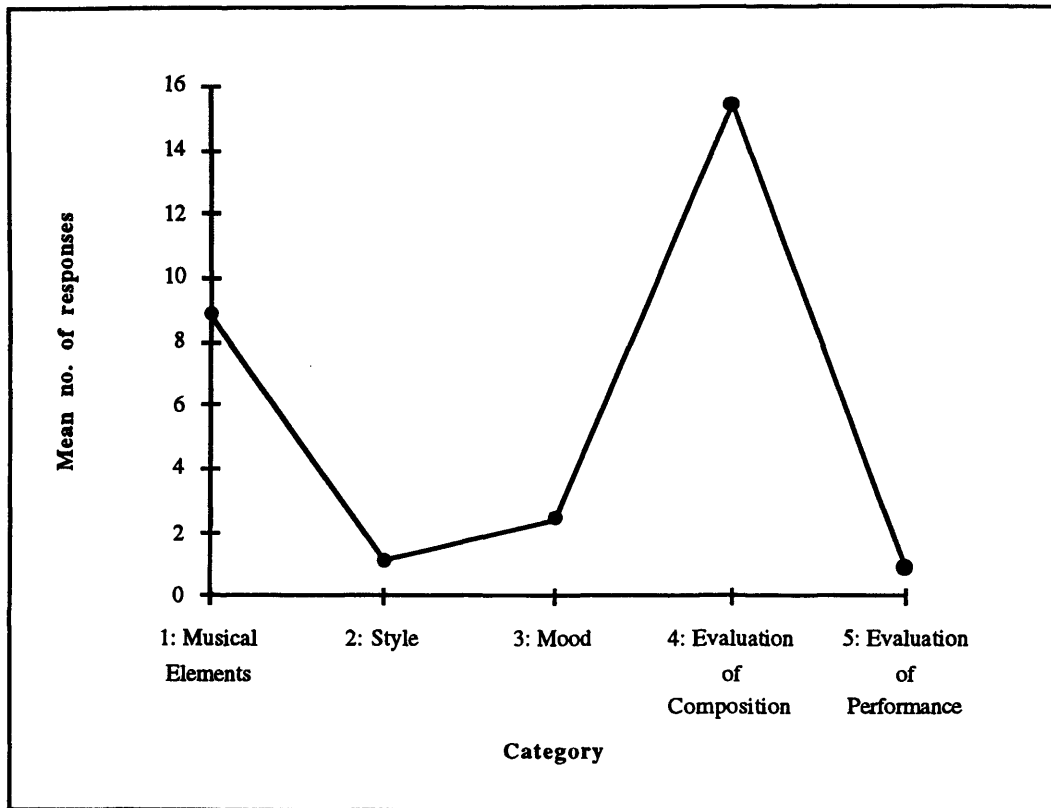
Fig. 4.6.1
Study 6: Main Effect for Category

The 2-way interaction between Gender and Key Stage was not significant. The interaction between Gender and Category was significant ($F = 4.06$, $df = 4$, $p < 0.01$). Figure 4.6.2 shows the means for this interaction.
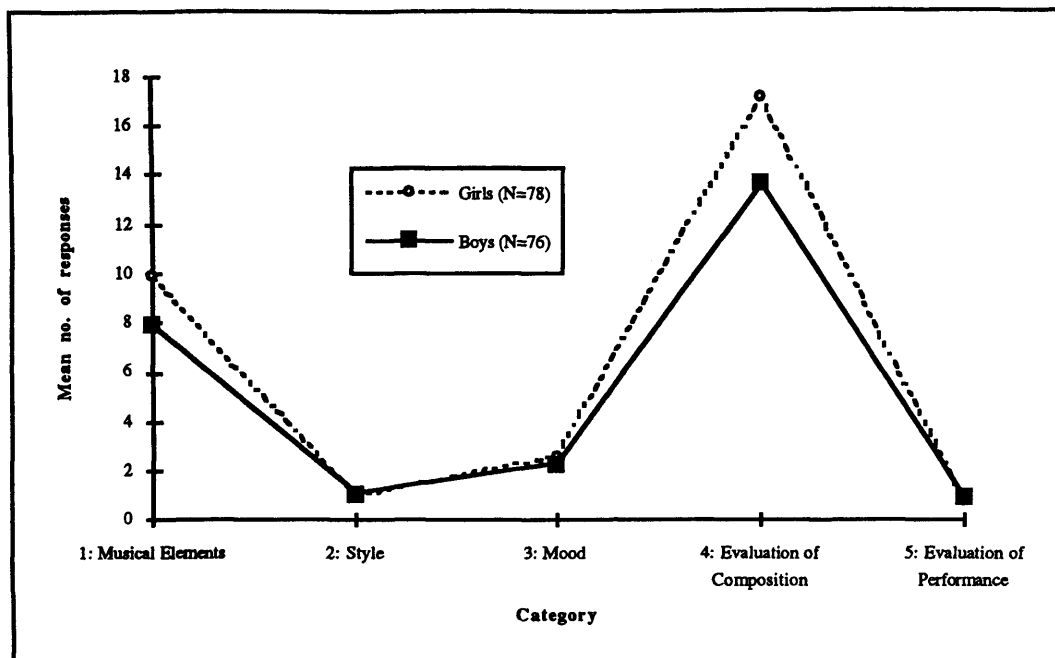
Fig. 4.6.2
Study 6: Interaction between Gender and Category

The interaction between Key Stage and Category was also significant ($F = 13.71$, $df = 4$, $p < 0.001$) and this is plotted in Figure 4.6.3.
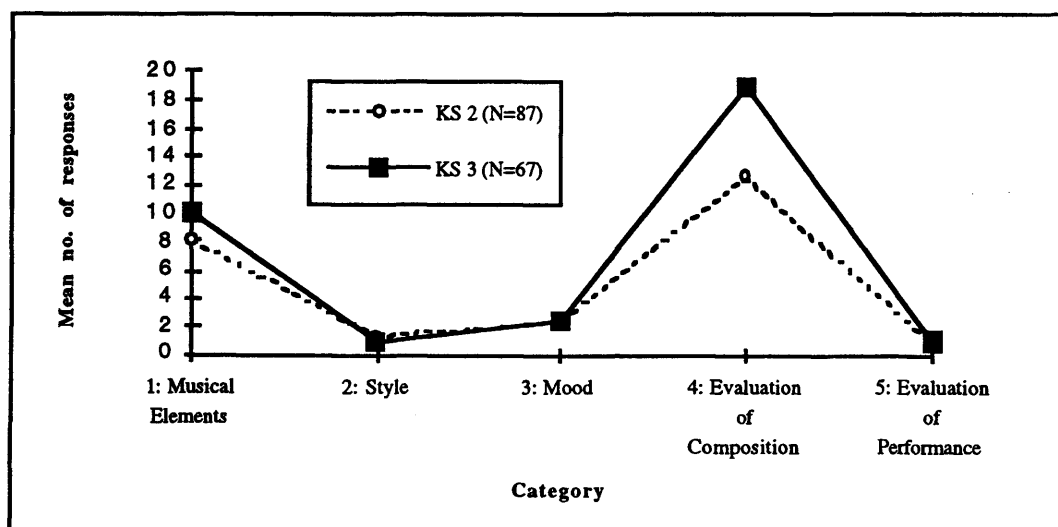
Fig. 4.6.3
Study 6: Interaction between Key Stage and Category

The 3-way interaction between Gender, Key Stage and Category was not significant.

Discussion

The aim of this part of the main study was to find out if there were any significant differences in the ways the children in the sample responded to the 'tune' compositions written by their peers.

The results show that the older (Key Stage 3) children produced more responses than the younger (Key Stage 2) children. This trend has also been seen in Studies 1 and 3 where the children were also asked to make written responses. It could also be accounted for by the fact that the older children can express themselves more fully in written form and had more 'ideas'. The girls produced more responses than the boys. There were significant differences in the number of responses scored across the five categories - Musical Elements (1), Style (2), Mood (3), Evaluation of Composition (4) and Evaluation of Performance (5). The discussion of the results will consider each category in turn.

1 : Musical Elements

The results show that this category came second out of the five categories in the number of responses scored (Figure 4.6.1). The 2-way interaction between Key Stage and Category (Figure 4.6.3) shows that the older children produced more responses in this category than their younger counterparts. The significant 2-way interaction between Gender and Category (Figure 4.6.2) shows that more girls than boys used this category when assessing the compositions of their peers. One possible explanation for this might be that the girls used a more technical music vocabulary relating to the musical elements in terms of pitch, duration, dynamics, tempo, timbre, texture and structure.

Summary

- The results show that the category Musical Elements came second out of the five categories in the number of responses accounted for;

- KS 3 children made more references to Musical Elements than KS 2 children;

- KS 3 girls made more references to Musical Elements than KS 2 boys.

2 : Style

The results show that this category came fourth out of the five categories in the number of responses scored (Figure (4.6.1). There was only a marginal increase in the number of responses scored in this category by the younger children (Figure 4.6.3) and very little difference in the way the girls and boys used this category across the sample (Figure 4.6.2). One possible explanation for this might be that very few of the children's compositions showed stylistic awareness.

Summary

- The results show that the category Style came fourth out of the five categories in the number of responses accounted for;

- KS 2 children responded marginally greater to style than KS 3 children;

- There was no difference in the way this category is used by the girls and boys.

3 : Mood

The results show that this category came third out of the five categories in the number of responses scored (Figure (4.6.1). There was no increase in the use of this category with age (Figure 4.6.3) and only a marginal increase by the girls (Figure 4.6.2). This might be because only a small proportion of the compositions were sophisticated enough to express clear 'mood' states. The results show that the girls showed only slightly more sensitivity to this aspect in their peers' compositions.

Summary

- The results show that the category Mood came third out of the five categories in the number of responses accounted for;

- The girls made marginally more references to Mood than boys;

- There was no difference in the way this category was used across the age range.

4 : Evaluation of Composition

This category scored the most number of responses across the sample (Figure 4.6.1). The significant 2-way interaction between Key Stage and Category (Figure 4.6.3) shows that Key Stage 3 children produced more responses than Key Stage 2 children. This result is in line with the overall trend in this direction i.e. that older children produce more responses than younger children. This might be accounted for by the older children's ability to express themselves more fluently in writing. It may also be because the older children are more interested in making evaluative responses about their peers' work. The results also show that the girls produced significantly more responses in this category than boys. One explanation for this might be that the girls are more confident in making evaluative judgements about their peers' compositions and have more 'ideas'.

Summary

- The category Evaluation of Composition accounted for the highest number of responses across the sample;

- KS 3 children made more references to the Evaluation of Composition than KS 2 children;

- Girls made more references to the Evaluation of Composition than boys.

5 : Evaluation of Performance

The results show that this category came last out of the five categories (Figure 4.6.1). There is very little difference in the ways the boys and girls responded in this category (Figure 4.6.2) and very little difference in the number of responses in this category across the age range (Figure 4.6.3). It might have been the case that the children were aware of the performances of their peers when they were asked to give reasons for their 'marking'. However the results show that the children remained focused on the qualities of the compositions themselves rather than on the qualities of the performance. This may indicate some ability of the children at both KS 2 and KS 3 to respond to the music itself without getting side-tracked by performance issues.

Summary

- The category Evaluation of Performance accounted for the lowest number of responses across the sample;

- KS 2 and KS 3 children made a similar number of responses to the Evaluation of Performance;

- Girls and boys made a similar number of responses to the Evaluation of Performance.

General Summary

In the initial design described in Chapter 3 one of the main aims was to investigate the relationship between how children hypothesise about what made a good tune and how these perceptions were born out both in their judgements of the pre-composed tunes played by the researcher as well as their own judgements of their own compositions. To draw out these relationships I shall now make a general summary of results commencing with the written responses from Study 1 : What Makes a Good Tune?, Study 3 : Written Response to Four Tunes, and Study 6 :

Written Responses to Peer Compositions. These three studies investigated (a) the children's *initial thinking* regarding the qualities of a good tune, (b) their *responses* to four set tunes and (c) their *responses* to their own tunes.

The results show that whilst there were significant differences in the number of responses scored across the five categories *within* these studies, there are also similarities and differences *between* the studies. For example, in all the studies the older Key Stage 3 children produced more responses than the younger Key Stage 2 children. As stated above this can be attributed to the fact that the older children were able to express themselves more fully in words and may have had more 'ideas' than younger children.

Overall the number of responses in the categories showed a different distribution between Studies 1 and 6. For example, when the children were asked 'what makes a good tune' the dominant category of response was **Musical Elements**, followed by **Evaluation of Composition, Style, Evaluation of Performance** and **Mood**. When the children actually responded to compositions, the order of responses changes with the dominant category becoming **Evaluation of Composition**, followed by **Musical Elements**. This suggests that when children respond to their own compositions they are more interested in making evaluative responses as opposed to the simple recognition of musical elements. The listening experience becomes more subjective rather than a response in technical terms. Also, whilst the category **Mood** received the lowest number of responses in Study 1, it came third out of the five categories in Study 6. Here is another shift suggesting that children are more sensitive to mood when they rate their own tunes than when they think about what makes a good tune. Also, the children's compositions may have been more successful in bringing a sense of mood to mind. There is also a shift in the number of responses in the category of **Style** between

both Studies 1 and 6. Whereas this category came third out of five categories when the children thought about what made a good tune, when they responded to their peers' compositions the **Style** category came fourth out of the five categories. Whereas the children thought that style was important, their recognition of style was a lesser feature of their responses. One reason to account for this might be that the children's compositions were not sufficiently stylistically characterised for these type of responses to emerge. If Swanwick and Tilmann's model (1986) can be used as a reliable predictor of the qualities present in children's compositions with age, it would suggest that from the age range within this study (9-13 years), compositions would become increasingly modelled on stylistic conventions, arguably with differing degrees of success.

In Studies 1 and 6 the Key Stage 3 children produced more responses than the Key Stage 2 children in the categories of **Musical Elements** and **Evaluation of Composition.** This might suggest that the older age group were not only more able to use a technical vocabulary but they were also more interested in evaluating formal qualities of the compositions rather than aspects of mood, style and performance. It might also reflect what they perceived to be required by the task. Both studies showed responses which referred to **Style** were predominant for the younger Key Stage 2 children. This could be attributed to the younger less experienced listener searching to respond to the music as a whole, in terms of a 'global' stylistic reference. Perhaps it also reflects the children's social expectations of the music at this age. Children of this age are keen to use labels which refer to 'real' music. When the younger children thought about what made a good tune they responded more in terms of **Evaluation of Performance** than their older counterparts. Again this might reflect the influence of popular culture on their expectations of performance whereas the older children did not bring this dimension to bear in such a significant way. However, when the younger children responded to their peers' compositions this trend did not continue as the results show that the

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children produced a similar number of responses in the **Evaluation of Performance** category across the age range. It seems therefore that the younger children were more influenced in their thinking about music in terms of its performance, whereas when both age groups responded to the recording of their own performances on audio tape, they focused on the qualities of the music itself rather than the quality of the performance. This indicates a shift in perception for the younger children. The responses showed that in Studies 1 and 6 both Key Stage 2 children and Key Stage 3 children did not differ significantly in the number of responses in the category of **Mood**. One reason for this might be that the compositions were not significantly developed enough to provoke mood responses. Another explanation might be that even at this age 'mood' responses were not considered by the pupils to be valid or appropriate for the task.

The more general developmental implications of these results suggest that Key Stage 2 children are able to engage in qualitative evaluations of their own and their peers' compositions. The results show that this related directly to their own experience of responding to their own compositions rather than talking hypothetically or responding to pre-composed tunes.

There are also differences in the way the children responded across Studies 1 and 6 with respect to gender. For example, when the younger children thought about what made a good tune in Study 1, with the exception of **Evaluation of Performance**, all the other categories received more responses from the girls. The pattern of responses is more differentiated at Key Stage 3 showing that boys gave more responses in the categories of **Musical Elements** and **Style**, and less than the girls in **Evaluation of Composition** and **Performance**. There was a similar number of responses in the category of **Mood**. This might indicate that at Key Stage 3 the boys think more about music in technical terms and stylistic

features whereas the girls are more concerned with the quality of how the constituent parts relate to each other within the composition and the quality of performance.

The picture looks slightly different in Study 6, in which the children responded to their own compositions. Overall, the girls responded more than the boys in the categories of **Evaluation of Composition** and **Musical Elements**. The **Mood** category received marginally more responses by the girls showing a sensitivity by the girls to this type of perception. Again there was no gender difference in the number of responses in the **Evaluation of Performance**. Another difference can be found in the **Style** category which received equal responses by both girls and boys although it had been more dominant for the girls at Key Stage 2 and for the boys at Key Stage 3 in Study 1. Here is another example of a possible shift of perception in the way children think about and carry out their responding perceptions to music. However, another explanation might be that the children's compositions, especially at Key Stage 2, may not have been technically proficient enough to suggest significant differences in style.

I shall now relate this summary to Study 3, which invited the children to make written responses to four set tunes. The responses showed similar patterns of response to those in Study 6 in so far as the responses to Tunes 1, 2 and 3 demonstrated the distribution of responses across the five categories in the same order i.e. **Evaluation of Composition, Musical Elements, Mood, Style** and **Evaluation of Performance**. This result shows that the pupils produced consistent responses whether the tunes were presented as pre-composed by the researcher or composed by themselves. It also demonstrated that the design of the research which used children's compositions did not distort the results and that the children regarded their compositions as tunes. The results for Tune 3 showed a

different pattern of responses in that the category **Mood** received the second highest number of responses across all five categories: the highest position in the results overall. The increase can be accounted for by the higher number of responses given by the younger Key Stage 2 girls showing their particular sensitivity to the mood qualities of the tune. This tune was characterised by the falling sequence of intervals of a third, the repeated dotted rhythm and the tonal resolution. This effect was offset by the Key Stage 3 girls who responded least in this category to this tune. Whereas the **Mood** sensitivity was most marked by the younger girls for Tune 3, the younger boys showed the most sensitivity to **Style**. It seemed that the qualities of the tune were represented by the younger children in different ways - the girls in terms of mood and the boys in terms of style. The category of **Musical Elements** received most responses from the older girls and least number of responses from the younger boys to Tune 3 showing their relative ability to perceive and articulate musical features. It could be said that both the younger children and the older girls perceived the qualities of Tune 3 in different ways to the other tunes and they demonstrated this through the language choices they made.

I shall now relate these findings to Study 2 which asked the children to numerically rate the four set tunes. The results show gender differences which differentiate *preference* from the *number of responses* given. In other words, as the girls get older even though the number of responses gets higher they rate the tunes lower. As the boys get older the ratings of the four tunes gets higher. This trend is replicated in Study 5 where the children's scored self ratings of their own compositions was calculated. Study 5 showed that the younger and older boys consistently rated their compositions higher than did the girls. On one level this might mean that with age girls have a better developed discriminative faculty than boys, on the other hand it might mean that they depreciate the value of their own work at Key Stage 3. However, the fact that Key Stage 3 girls respond to musical features in an

'objective' way may be indicative that their rating is not necessarily dictated by personal liking, and is of a higher order.

From the results of Studies 2 and 3 both boys and girls show preferences for the tonal and resolved tunes (Tunes 2 and 3). The simplest tune (Tune 1) and the most complex tune (Tune 4) were less well liked. In this way the children's responses may reflect the 'optimum complex model' (Heyduk, 1975). In other words, the children showed their relative disliking of the pieces which were respectively the most simple and the most complex. The pieces of intermediate complexity received more favourable responses. From the study the determining 'familiarity' factor affecting the childrens preference was the repetitive tonal organisation of the tune. The results also suggests that it was the boys who showed most tolerance for the most complex tune (Tune 4).

In this chapter I have reported the findings across each successive study to reveal the significant differences across age, gender, tune and categories of perception. The results corroborate research into listening responses which show effects for age (Hargreaves and Colman, 1981), and across a range of musical properties e.g. pitch (Lamont, 1998), as well as effects in other categories of perception e.g. Mood (1997), Giomo (1993). In addition significant differences for gender confirm results in the work of Sloboda (1985) and Giomo (1993). The significant interaction between gender and key stage in Study 4.5 corroborates Murphy and Elwood (1997) to suggest the effects of adolescence on girls' perception of themselves and their performance. The research recognises that further experimental manipulation of the test material in Studies 4.2 and 4.3 would be needed as well as a larger sample of tunes in order to develop more substantive results. The next chapter examines the same sample of responses and adopts a qualitative analysis.

CHAPTER 5

RESULTS OF THE MAIN STUDY
PART I : PUPILS' PERCEPTIONS OF COMPOSITIONS :
QUALITATIVE ANALYSIS

5.1 Category Analysis

In Studies 1, 3 and 6 children gave written responses. For the purposes of this part of the analysis I shall focus on the written responses to Study 6, which involved the pupils making a comment on their own and their peers' compositions. The initial analysis involved mapping the responses into the five categories described above as Musical Elements, Style, Mood, Evaluation of Composition and Evaluation of Performance. I shall now discuss each category in turn to investigate the language used by the children within each category. The quotations cited from the children's responses were chosen because they were representative of particular types of response.

Musical Elements

In order to further investigate the children's use of language within this category I subdivided the responses into a further 7 subcategories which correspond to the musical elements within the Music National Curriculum (DFE, 1995). I shall focus on each in turn.

Pitch

In the Music National Curriculum **pitch** is described from Key Stage 1-3 as :

> *(KS 1) high /low*
> *(KS 2) gradations of pitch e.g. sliding up/down, moving by step/leap, names for pitch*
> *(KS 3) various scales and modes e.g. major, minor*

The children's responses in this category revealed a range of ways of talking about pitch in relation to their tunes. Some statements identified the polarities in the music e.g. 'it is a really high tune', 'high notes and low notes', 'he chose notes that were low down'. Others represented pitch movement e.g. 'running up and down', 'I like it because it goes up and down', 'started from the top and went down', 'had a part when it went up'. Some demonstrated the use of technical language e.g. 'it did sound very like a scale'.

As the children qualify their responses a sense of aesthetic evaluation emerges in relation to the quality of pitch within the tune. For example, personal statements emerge e.g. 'it was too low for me', 'I did not like it at all, it was low', 'too high and boring', 'no tune it just went up and down a bit', ' he went too low and kept playing the same note', 'it was a tune that should have been played higher', 'it was more like a scale than a piece'. Analysing the results in this way showed that both the younger Key Stage 2 children and the older Key Stage 3 children appeared not to like the tunes which used extremes of pitch.

Other statements show further differentiated comments, some of which capture a movement quality of the tune e.g. 'it is very jumpy and the tune changes a lot', 'I like the down hill effect'. It can be argued that this might be a rhythmic perception as well as a pitch perception. Others commented how the pitches fitted together within the melodic sense of the tune e.g. 'it was a good tune and none of the notes

clashed', 'I thought better notes would be nice', 'the tune was good and the notes went', 'all the notes go really well' ,'the notes moved around too much'. Key Stage 2 children liked the tunes better if the notes 'fitted'. At Key Stage 3 the responses showed a greater degree of differentiation demonstrating an understanding of melodic line and tessitura within the tunes e.g. 'the notes are low and go with one another', 'love the different use of notes', 'very interesting - big range of notes', 'interesting use of high and low notes'. To summarise, responses which refer to **pitch** show:

- children at KS 2 and 3 identify high and low, gradations of pitch, some recognise scales;

- children prefer tunes which are not too high or too low;

- differentiation occurs when younger children prefer tunes where the pitch does not move around too much, whereas older children tolerate a greater range of pitch;

- movement metaphors are used to describe pitch contour.

Duration

In the Music National Curriculum **duration** is described from Key Stage 1-3 as :

> *(KS 1) long/short; pulse or beat; rhythm*
> *(KS 2) groups of beats, e.g. in 2s, 3s, 4s, 5s; rhythm*
> *(KS 3) syncopation, rhythm*

The responses divided between those which focused on the qualities of the duration as beat or rhythm and those which focused on the duration of the tune as a whole.

The children's responses which focused on **duration/beat-rhythm** were considerably less differentiated than those within the category of pitch. Many

responses used the words *beat* and *rhythm* e.g. 'I like the rhythm', 'not much rhythm', 'it had rhythm', 'I liked the beat'. Some responses captured rhythmic qualities within the tunes e.g. 'it was good because it was rhythmic', 'good sense of rhythm'. Responses such as 'it was out of time', 'good beat but it was a bit off', 'too out of rhythm', 'needs a better beat - should flow more', 'quite bitty, rhythm hard to follow' suggest that the children sense a feel for the rhythm of the tune but notice inconsistencies. This might be accounted for in the quality of performance as much as for the rhythmic qualities of the tune. No responses demonstrated an understanding of groups of beats *per se*, although responses 'out of time' suggest that a sense of metre was perceived by the listeners. Out of all the responses, one girl at Key Stage 3 responded in terms of syncopation e.g. 'a good off beat'. An overview of responses in this category showed that Key Stage 3 children gave more responses regarding the rhythm of the tunes.

To summarise, responses which refer to **duration/ beat-rhythm** show:

- recognition of a beat or rhythm;

- *a sense* of rhythm which can be followed and which flows;

- rhythm in time;

- rhythm off or on the beat;

- KS 3 children produced more responses in this category.

Apart from one response, which describes the length of the notes as 'good how it is staccato', most of the children's responses which use the words *long* and *short* refer to duration as the length of a the tune as a whole. In this way it is linked to the element of structure. Children seem to devalue tunes which are either too short e.g. 'it was short and boring', or too long 'it went on too long and was boring'.

Responses which show a greater differentiation value the appropriateness of the length of each particular tune e.g. 'it was nice that it was short', 'short and effective'. Others value the quality of length in terms of the relative *complexity* of the tune e.g. 'short and simple', another in terms of its *mood* e.g. 'short and snappy'. The common phrase 'short and sweet' was used on a number of occasions. At Key Stage 3, especially within year 8, some children preferred tunes which were longer and more interesting. To summarise, responses which refer to **duration/long-short** show:

- preference for tunes which are neither too short or too long;

- preference for longer tunes by some KS 3 children;

- appropriate duration for each particular tune.

Dynamics

In the Music National Curriculum **dynamics** are described from Key Stage 1-3 as :

> *(KS 1) loud, quiet, silence*
> *(KS 2) different levels of volume, accent*
> *(KS 3) subtle differences in volume, e.g. balance of different parts*

As all of the keyboards were not touch sensitive the volume was controlled at source rather than through touch. In the responses dynamics are referred to as *soft, quiet and loud*. Generally pieces which were too quiet or too loud were valued less e.g. 'too quiet', 'too loud all along'. Some responses refer to different levels of dynamics e.g. 'I like the fading out bits', 'its great because its gone soft'. Other responses show greater differentiation e.g. 'it has one side soft and the other loud', 'a bit loud at times', 'its quiet and has a slight echo'. Some responses show dynamics relating to *mood* 'e.g. 'it is soft and gentle', 'it was soft and very calming' and loudness in terms of *clarity* e.g. 'loud and clear'. The most marked difference in this sub-category was that the Key Stage 2 children made far more

references to dynamics than the Key Stage 3 children. From this initial analysis there is evidence to suggest that the girls produced more responses which showed a preference for quiet music and boys produced more responses which favoured loud music, especially in upper Key Stage 2.

To summarise, responses which refer to **dynamics** show:

- recognition of loud or quiet;

- decreases and increases in volume;

- parts of the tune which varied in volume;

- dislike for tunes which were either too soft or too loud;

- preferences which relate mood to dynamics;

- boys prefer loud tunes especially at KS 2;

- KS 2 produced more responses than KS 3.

Tempo

In the Music National Curriculum **tempo** is described from Key Stage 1-3 as :

(KS 1) fast, slow
(KS 2) different speeds, e.g. lively/calm, slower/faster than;
(KS 3) subtle differences in speed, e.g. rubato

The responses showed that the children perceived tempo in several ways. Some responses showed the recognition of tempo e.g. 'it was fast', 'very slow'. Others noticed when the speed changed e.g. 'he changed the speed', 'and it got faster'. Some compared the tempo of one tune to others e.g. 'a slower version than Sarah's'. For others, changes in tempo define their perception of the *structure* of the

tune e.g. 'it was slow, fast, slow', 'the beginning was OK but the end was slow'. Many of the responses show that the children preferred faster tunes e.g. 'very good because it is fast', 'try to make faster', and that slow tunes were less interesting e.g. 'very slow, could do better', 'slow and a bit dull', 'slow and a bit boring'.

The preference rating is linked to *mood,* such that fast equates with uplifting moods e.g. 'I liked it because it was fast and happy', 'fast and fun', 'cheerful, good speed'. Slowness is equated with sadness e.g. 'sad and slow', 'very dismal, slow'. For others, especially in Key Stage 3, the qualities of fast and slow link with the idea of *movement* e.g. 'it didn't flow enough, it was slow', 'needs to flow more, maybe faster', ' nice and brisk'. Others seemed to focus their perception on the appropriateness of the tempo for a particular tune e.g. 'fast at one time and too slow at another', 'too fast for that type of tune'. The few children who used the word *tempo* were from Key Stage 3 e.g. 'sweet, got a good tempo', 'good tempo quite fun', 'good tempo and catchy tune'. Far fewer children produced references to tempo at Key Stage 2 and girls referred to this more than boys. Far more children produced responses at Key Stage 3 and were boys. The initial analysis also shows that the boys produced more responses which preferred faster music.

To summarise, responses which refer to **tempo** express :

- whether the tune is fast or slow;

- changes in tempo between tunes;

- changes of tempo within tunes;

- tempo to define the structure of a tune;

- tempo in relation to mood;

- tempo in relating to movement and flow;

- appropriateness of the tempo for the tune;

- KS2 produced fewer responses than KS 3 than KS 3;

- more responses by the girls at KS 2;

- more responses by the boys at KS 3

- boys prefer faster tunes than girls.

Timbre

In the Music National Curriculum **timbre** is described from Key Stage 1-3 as :

(KS 1) quality of sound, e.g. tinkling, rattling, smooth, ringing
(KS 2) different qualities, e.g. harsh, mellow, hollow, bright
(KS 3) different ways timbre is changed, e.g. by mute, bowing/plucking, electronically; different qualities, e.g. vocal and instrumental tone colour

The responses showed that children perceived timbre in a number of ways. Some

expressed a simple preference for the sound which had been selected from the

keyboard e.g. 'I like the sound in it', ' I like the sound in this one'. Some describe

a quality of the sound in terms of *mood* e.g. 'strange sound', 'funny sound',

'weird sound'. Some describe a quality of the sound in terms of the *depth* e.g.

'deep sound', 'heavy sound'; others by *association* e.g. 'ghostly sound'. One

response described the sound as 'a bit of a harsh tone'. Others describe the sound in

terms of other sound sources or instruments e.g. 'it sounded like bottles', ' it

sounded like an organ', 'it sounded like the flute', 'it sounded like a bassoon', 'it

sounded like someone playing the sitar'. For some, changes of timbre increased the

pleasure of the tune e.g. 'its good with lots of sounds', 'I liked the sound effects'.

Others differentiated their judgements on the amount of timbre change e.g. 'there's

too many changes of noises'. Another type of response demonstrates when the

children differentiate between the tune and the appropriateness of the sound for the tune. In other words, their preference for the sound is not dependent on liking the tune and vice versa e.g. 'it didn't mix very well although the sounds were nice', 'I don't like the sound he chose for the tune', 'marimba is a nice choice of sound for the tune', 'I don't think the sound was relevant to the tune'. One response differentiated between a disliking for the tune but a liking for the sound effect. Far more responses were given in this sub-category by the younger Key Stage 2 children and more by the girls. Nearly all the responses at Key Stage 3 were given by the girls.

To summarise, responses which refer to **timbre** express :

- an identification of the sound;

- qualities of the sound which relate to other sound sources and instruments;

- preference for changes of the sound;

- the appropriateness of the sound for the tune;

- qualities of the sound in terms of mood, depth and association;

- more responses by the girls than boys;

- more KS 2 responses than K2 3;

Texture

In the Music National Curriculum **texture** is described from Key Stage 1-3 as :

> *(KS 1) several sounds played or sung at the same time/one sound on its own*
>
> *(KS 2) different ways sounds are put together e.g. rhythm on rhythm; melody and accompaniment; parts that weave, blocks of sounds, chords.*
>
> *(KS 3) density and transparency of instrumentation; polyphony and harmony*

There were very few responses in terms of texture and this can be accounted for by the nature of the composition task. This was essentially a linear melodic construction and did not require more than one part at once. Some children used chords to accompany their melodies and some responses reflect this e.g. 'long with nice chords', 'it was very tuneful with a nice left hand', 'the chords go well together'.

Structure

In the Music National Curriculum **structure** is described from Key Stage 1-3 as :

> *(KS 1) different sections, e.g. beginning middle end, repetition e.g. repeated patterns, melody, rhythm;*
>
> *(KS 2) different ways sounds are organised in simple forms, e.g. question and answer, round, phrase, repetition, ostinato (a musical pattern that is repeated many times), melody;*
>
> *(KS 3) forms based on single ideas e.g. riff, forms based on alternating ideas e.g. rondo, ternary, forms based on developmental ideas e.g. variation, improvisation.*

The responses showed that the children perceived **structure** in a number of ways. The greater number of responses in this sub-category referred to *beginnings* and *ends* of the tunes. Some are expressed as preference e.g. 'the beginning was quite good', 'I liked the beginning bit', 'good start', 'I like the end bit', 'it finished well'. Others refer to structural events using *non-musical associations* e.g. 'at the start it is a bit creepy and heavy', 'the first bit is strange', 'in the beginning it sounds like birds', 'the end went funny'. Others pick out musical events within the structure e.g. 'the ending note wasn't good'. Fewer responses refer to events in the middle of the tunes e.g. 'there was a mess-up in the middle', 'in the middle it was a bit of a copy', 'a tiny difficulty in the middle'. Some responses differentiate structural responses by identifying changes within different sections of the same tune e.g. 'it was the same at the beginning but different at the end', 'bit boring ending doesn't

go with the beginning'. One response referred to a section of the tune in terms of verse/chorus e.g. 'its cute and the chorus is good'.

Structural perceptions are also described in terms of repetition e.g. 'it was very repetitive', 'a bit repetitive to begin with', 'he mostly uses the same keys', 'he played the same notes', 'he used the notes over and over again', 'completely the same - just repeated', 'its the same all the way through', 'it kept on continuing itself forever and forever'. The responses showed a preference for tunes which did not repeat e.g. 'he just repeated', 'its good I like it but they do repeat it a bit', 'wasn't very interesting and it repeated itself'. Change was regarded as more interesting e.g. 'it changed a lot which was good', 'good because it changed and finished well', 'it didn't change much and had no variation', however, one response stated that 'it changed too much'.

Few responses picked out patterns within the tunes e.g. 'has an enjoyable pattern', 'very good because it kept to a pattern', 'good but too short - like a riff'. One response identified the pattern in the tune which was repeated e.g. 'it was the same tune going up an octave'.

Tunes were also evaluated in terms of their structural *simplicity* and *complexity* e.g. 'I thought it was very simple', 'too simple for words', 'too plain and simple', 'its complicated' . Others produced more differentiated comments appreciating the effectiveness of the structure of the composition e.g. 'plain but good', 'its simple but it has something to it'.

Key Stage 3 responses indicated more of an awareness of the structural process of the tune e.g. 'he should have added more in between', 'it was like it was gradually building up', 'it was put together well'.

To summarise, responses which refer to **structure** show:

- attention to beginnings and endings more than middle events;

- sensitivity to beginnings and endings;

- extra- musical associations within the structure;

- musical events within the structure;

- structure used to locate particular musical events within a tune;

- structure used to locate more than one event within the same tune;

- perception of simple/complicated structures;

- structure in terms of repetition and change;

- structure in terms of patterns;

- preference for structures which do not change too much;

- that KS 3 are more aware of the structural process i.e. how a tune is built up.

Style

Children's style sensitivity is represented in a number of ways. For example, some responses refer to other countries e.g. 'it sounded Chinesy', 'it sounds good like Indian Music', 'sounds Japanese', 'sounds oriental', 'I like the Caribbean beginning', 'sounds very Egyptian'. One response at Key Stage 3 refers to the country and a specific feature of the music e.g. 'it had a lot of Spanish rhythms'.

Children who responded in this way have picked out a quality in the sound, such as the use of the Indian sitar in the sound bank, or a musical feature, such as the intervallic pitch relationships in the 'Egyptian tune' or the syncopated rhythm of the 'Caribbean tune'. As they do not yet have the vocabulary to describe the specific musical features they describe the music using stereotypes.

Some responses in this category refer to a particular style of music e.g. 'sounded like jazz', 'bit of a jazz tune', 'very into rock music', 'should be with the blues', 'quite classical'. One response tried to date the tune e.g. 'like a 1900's' tune', and another described a tune as 'a bit old'. Another response referred to the tune as 'medieval'. Other responses refer to a stylistic quality rather than a specific style e.g. 'it sounded jazzy', 'it was funky', 'very rocky', 'a good slinky style', 'it has a swinging beat'.

Some responses recognised particular derivations and likeness to familiar groups and performers e.g. 'it was obviously copied from a nursery tune', 'tune from *No Limit*', 'it was copied off a pop song that came out recently', 'definitely heard it on TV before'. One response said the tune was a 'mix of *When the Saints* and *London's Burning*'. Another response likened a tune to 'something a bit like '*A Horse Right Here*' which was a number from the musical 'Guys and Dolls' which the pupil was involved in at the time of the research. Other responses likened the style to something heard in the popular social culture of the child e.g. 'it's like a computer game', 'it sounds like its out of a cartoon', 'sounds like the beginning of a TV programme', 'sounds like a cat food advert'. Many responses make references to film music e.g. 'it struck me as something out of a film', 'like space music', 'something out of a Walt Disney Film', 'like something out of a fairy tale', 'like something out of a child's detective movie', 'too much like the Snowman', 'like the

Little Mermaid', 'something from Maid Marion', 'like something out of Grease',
'like something out of Bugs Bunny'.

Other responses put the tune in a context e.g. 'like something from a circus or a
fair', 'I liked it because it reminded me of a church', 'weird, its like being in
Church', 'for a horror movie', 'good for a play', 'sounds like a disco', 'sounds
like a piece for ballet' 'good music for a funeral', 'it reminded me of a holiday',
'music for Halloween'.

Responses emerge showing style preference e.g. ' its so bad - its dance music',
'too much like a nursery rhyme', 'sounds too churchy', 'too classical', 'too much
like cathedral music', 'oriental but it sounded quite nice', ' not very interesting - like
music for children'. Some responses showed an understanding of style similarity
by likening the style of one pupil in the class to that of another e.g. 'quite like
Nicole's, 'nearly the same as Jai's'.

Whereas style responses which referred to film dominated Key Stage 2, the *context*
of the style which relates to personal experience was a feature of the Key Stage 3
responses.

To summarise, responses in this category refer to :

- music from other countries;

- musical features from the music of other countries;

- particular musical styles;

- qualities of style;

- chronology;

- styles associated within the media;

- styles associated with other songs;

- styles from or which would be appropriate for films;

- styles related to personal experience ;

- style preference;

- style similarity between peers.

Mood

Children responded in this category in a number of ways. Many children identified a tune with a particular mood. Positive moods were represented such as 'it was jolly and fun', 'it was a joyful tune', 'a nice happy tune', 'a laugh and I thought it was nice', 'fun and entertaining'. Negative moods were represented as 'sad and not exciting', 'it is boring and sad', 'it was very dismal', 'very depressing'.

Some children clearly identified with the music e.g. 'its a tune that makes me feel lonely', 'that tune makes me feel jolly', ' it makes you feel good', 'it scared me', whilst others recognised the mood of the music without personally identifying with it e.g. 'OK and very calm', 'a relaxing piece of music', 'it was peaceful music', ' it sounds restful'. Some children were able to identify the features which evoked a mood e.g. 'she made the notes sound cheerful' .

Other mood responses perceived the atmosphere which the tune created e.g. 'it had a good atmosphere', 'it was very dramatic'. Others qualified the atmosphere e.g. 'it was ghostly', 'it was threatening', 'it was scary sort of music', 'spooky', ' it is

mysterious', 'a bit of a fearful tune', 'very eerie', 'its creepy'. Some tunes were qualified as 'cuddly', 'a soppy tune'.

Another type of response connected movement with mood e.g. 'its lively', 'lumpy and springy', 'jerky but good', 'it's got bounce', 'I love this its so bouncy and great', 'like an old man walking', 'like a fairy dancing', 'like someone diving'.

Another type of response recognised feeling or the absence of feeling and life in the tunes e.g. 'boring - not much feeling', 'it has a nice feel to it', ' it doesn't have any life', 'it was good and full of life', ' she should have added a bit more spice to the tune'. Another interesting quality identified in this was ' it was playful'.

A few responses recognised a change of mood in the tune e.g. 'it goes scary then normal'; others juxtapose two moods e.g. 'sweet and catchy', 'funny and strange', 'weird and wonderful'. To summarise, responses in this category include:

- positive and negative moods;

- responses where the listener identifies with the mood;

- responses where the tune is identified as having a mood;

- moods which relate to atmosphere;

- moods relating to movement qualities;

- recognition of a change of mood;

- juxtaposition of two mood states ;

- moods relating to the 'life' and 'feeling' of a piece.

Evaluation of Composition

A range of types of response can be identified in this category . Most of the responses expressed a simple value judgement or preference e.g. 'it is good', 'I like it'. In other words if the children liked the tune they valued it. Others differentiated their statements e.g. 'it is my kind of music', 'not to my taste'. As above, many children justified their preference by valuing one or more aspects of the tune in the categories of Musical Elements and Style.

Further responses in this category showed a sensitivity to the quality of the composition and this is expressed in different ways. For example, some responses demonstrated a sense of the composition as a whole e.g. 'it sounded together', 'it went together well', 'synchronised', 'it was in place', 'it fits together well'. The children identified when the music didn't 'work' in the following ways. Sometimes it is expressed in general terms e.g. 'I didn't like this because it bumped', ' it was a bit rickety', 'it was a bit wobbly'. These types of response were more typical of younger Key Stage 2 children . Other responses expressing the same type of idea included e.g. 'it doesn't fit together properly', 'it didn't mix well', 'it is all over the place', 'a bit unstable'.

Another quality of response in this category showed that some children had considered the clarity of the organisation of the tune. The younger Key Stage 2 children used expressions such as e.g. 'it was a bit messy', 'it was a bit muddled'. The older Key Stage 3 children used expressions such as 'it was well organised and she knew what she was doing', 'good and well organised', 'well thought up and practised'. It seemed that the tunes which appeared to be worked out were valued more highly as opposed to those which were described as e.g. 'too random', 'he didn't know what he was doing', 'it sounded like it was made up', 'its just anything that he is playing', 'plonking any notes', 'he was making it up as he went

along'. Others made references to this 'made as played' (Burnard, 1997) quality as improvisation and some valued this type of composition e.g. 'really well improvised', whilst others did not, e.g. 'just improvised'.

Other responses evaluated the composition in terms of whether it *flowed* well e.g. 'no rhythm and didn't flow', 'it didn't flow enough', 'not as good but it flowed well', 'a fairly good consistency'.

Another type of response emerging in this category was concerned with whether the tunes were *copied* or *original*. For many, copies were not valued e.g. 'it was obviously copied', 'it was a bit of a copy', 'I've heard it before somewhere', 'I think she could have made her own tune', 'it has been stolen'. Others qualified their response e.g. 'it was nice because she started with a piece already made then added her own bit'. Tied into this evaluation of the tunes is the notion of originality. This quality was valued highly by some e.g. 'it was a good tune and original', 'not original enough', and for others their judgement was less harsh e.g. 'a bit unoriginal but OK, sounds nice'. Originality is also expressed as difference e.g. 'I liked it very much because it was different', 'I thought it was good, it was all different', 'different not like the others'. Other responses demonstrated perceived qualities of imagination and creativity e.g. 'he was being quite imaginative', 'very creative and good'. Interestingly the focus of the responses showed that the younger children were more likely to express themselves in terms of whether the piece was copied whereas the older Key Stage 3 children were more concerned with the quality of originality, difference, imagination and creativity.

Another type of response referred to expectation. Some children clearly had an expectation of what their peers could achieve and evaluated the compositions in this way e.g. 'it suited her', 'not as good as I thought it would be', 'he could have done

more'. Others evaluated the composition in terms of the musical expectation set up within the tune e.g. 'it was too predictable', 'you sort of knew which note would come next', 'a bit off course towards the end'.

Other responses were more intuitive and referred to a tune as having *'something'* e.g. 'there is something going on', 'nothing much going on', 'there was nothing there'. One response stated 'I just enjoyed it so much as it was getting to the point of a piece,' and another expressed this sense in terms of 'it did not lead anywhere'. These comments were given by the older Key Stage 3 children who also valued highly the 'proper' or 'professional' qualities of the tunes e.g. 'brilliant - like a proper piece', 'good but no proper ending', 'too short, no proper rhythm', 'very professional', 'it sounded like a real tune'.

To summarise, responses in this category include :

- value judgements;

- qualified value judgements;

- responses referring to the 'whole' fit of a tune;

- responses referring to the quality of thinking/organisation of ideas;

- responses referring to the flow of a tune;

- responses referring to originality, imagination and creativity;

- responses referring to expectations of their peers;

- responses referring to expectations perceived in the music;

- more intuitive aesthetic judgements at KS 3;

- preference for the 'properness' of the music at KS 3.

Evaluation of Performance

Children produced different types of response in this category. For example many responded to how well the tunes were played e.g. 'very good, well played', 'I thought she played it well'. Others noted discrepancies in the performance e.g. 'good but a few mistakes', 'she got some notes wrong', 'she hit a couple of wrong notes', 'it has few jolts and didn't go well', 'she mucks up a bit'. In this category some responses refer to practice e.g. 'could have been practised more', 'could be played better', 'very good, but I think she practised'.

Some responses differentiated between the composition and its performance e.g. 'it was skilfully played and composed', 'it was a good effort and it came out well'. For others, the performance quality does not detract from the composition itself e.g. 'she stumbled a bit but it was quite good', it was very good although it got blobbed', 'very good except for the slip at the start'. One response doesn't rate the tune itself yet values the way it is played e.g. 'dull but well played'.

Others respond to the technical abilities of the players e.g. 'it was too hard and he was trying to show off', 'she tries to go too fast', 'it must have been hard to play', 'he made the fiddley bits sound really good'. Some identify piano players e.g. 'she is a piano player', 'she is a really good player'. Differentation occurs when the technical demands of the tune are described relative to the experience of the performers e.g. 'good for someone who doesn't play', 'not difficult but sounds good'.

To summarise, responses in this category refer to :

- how the tune was played;

- mistakes;

- practice;

- technical mastery of the instrument;

- differentiation between composition and performance;

- differentiation between technical demands and the experience of the player.

Discussion

The qualitative results of the pupils' listening responses show different types of responses within each category.

I shall first discuss the findings within **Musical Elements**. The further subdivision of the qualitative analysis into the 7 subcategories of the Music National Curriculum allows further investigation of the types of response given. To a certain extent the responses in each sub-category confirm the way the Music National Curriculum defines the increasing levels of discrimination within each musical element i.e. pitch, duration, dynamics, tempo, timbre, texture and structure across Key Stages 1-3. The results therefore provide verbal evidence of how children listen and appraise music in relation to the Music National Curriculum .

However, the results also show ways in which the children's musical understanding becomes increasingly differentiated both within each sub-category and between categories of perception, beyond the definition presented within the

documentation of the Music National Curriculum. This gives a more detailed picture of how children use language in their responses in each of the subcategories and more particularly shows us what they *value*. This changes across the categories, within the categories and with respect to age and gender, and leads to a fuller picture of the dimensions of aesthetic understanding. Some of the findings in this part of the results show trends which could be followed up with further statistical analysis.

In the sub-category of **pitch** the results show increasing discriminations documented in the Music National Curriculum i.e. the responses show that at Key Stage 2 and 3 children identify high and low, gradations of pitch and scales. In addition, the children's responses show a differentiation in respect to the pitch contour or melodic line. This is expressed through movement metaphors. In addition they show a sense of the aesthetic fit of the notes within the tune. Both Key Stage 2 and 3 children prefer tunes which do not have extremes of pitch, which may relate to the limitation of their own vocal ranges. However, some children at Key Stage 3 tolerate a greater range or tessitura of the melodic line. Differentiation of pitch therefore appears to relate both to increasing discrimination of pitch but also to an aesthetic sense of the pitch contour and sensitivity to tessitura.

To a certain extent the responses in the sub-category **duration** show similarities within the definition of the Music National Curriculum. For example, the results show that the children are sensitive to beat, rhythm and off beat. However, none of the responses showed an explicit reference to metre, other than a sense of whether the tune was *in time*. Rather, the sense of *rhythmic flow* seemed to be uppermost in the responses in this sub-category.

From this preliminary analysis, Key Stage 3 children produced more responses referring to duration. The terminology *long* and *short* are specified within the Music

National Curriculum and these words were used by the children, less to describe the length of the notes, but more in the context of the duration of the tune as a whole. In a similar way to the perception of pitch there seemed to be an optimum length of piece with which the children felt more comfortable. In other words, they did not like tunes which showed extremes of length. Responses in this category also interconnected with *mood* and structural complexity. This relates to some of the quantitative results for Studies 2 and 3 where the simplest and most complex tunes received lower ratings. This provides qualitative evidence to support previous optimum complexity studies (Heyduk, 1975). However, some Key Stage 3 children showed a preference for tunes which were longer, which indicates a shift of perception. A more differentiated level of perception was shown in the responses which discriminated on the basis of whether the length was appropriate for a particular tune.

To a certain extent the responses in the sub-category **dynamics** show similariteis with the definition within the Music National Curriculum demonstrating increasing levels of discrimination of loud and quiet, gradation of volume and subtle changes of volume within each tune.However, the results show further differentiation. As with the perception of pitch and duration, there seems to be a consensus for an optimum preferred level of loudness. From this initial analysis the younger Key Stage 2 children showed a greater sensitivity to dynamics producing more responses in this sub-category. The results also show that the whilst the girls expressed preferences for quieter music, the boys, particularly at Key Stage 2, expressed preferences for louder music. The evidence presented here suggests that there may be some validity in the documented perception of teachers (Green, 1997) that boys prefer loud music and girls quieter music, which is an area for further investigation.

In the sub-category of **tempo** the results show increasing discriminations documented in the Music National Curriculum i.e. the responses show that at Key Stage 2 and 3 children identify tunes which are fast and slow, gradations of speed and changes of tempo within speed. In addition, the children compare tempos between pieces. Mood is also used as a means of describing tempo in general global terms. Further differentiated responses relate tempo to flow and use tempo as a means of discriminating different sections within a tune. A further level of thinking is also shown by children who applied the construct of appropriate tempo for particular tunes. The results also show that tempo sensitivity was more of a feature of the older Key Stage 3 children yet more responses were given by girls at Key Stage 2 and boys at Key stage 3. This is an area for further investigation.

In the Music National Curriculum **timbre** is defined by the qualities of the sound expressed in different adjectives as well as changes of timbre. The results presented above corroborate the Music National Curriculum documentation and also develop an understanding of the perception of timbre. Some children respond in terms of identifying the sound with other sound sources and instruments. The qualities of the sounds are expressed in terms of mood, depth and association. A further level of thinking is also shown by children who applied the construct of appropriate sound for particular tunes. As in the results for pitch and duration there also emerges an optimum level of timbre change which the pupils can tolerate. The results also show that more Key Stage 2 children responded in this category than their older counterparts. This parallels development in composition (Swanwick and Tillmann, 1986) where younger children are more likely to respond to the sounds of the material being used. Another finding shows that the girls produce more responses than the boys which is another area for further investigation.

In the sub-category of **texture** few responses were made by the children which can be accounted for by the linear melodic nature of the composition task.

In the sub-category of **structure** the results reflect the documentation in the Music National Curriculum, especially in the children's perceptions of beginnings, middles and ends of tunes. There seems to be an increasing order of perception, starting with the ability to value and make extra-musical comments about the beginnings and ends of the music. Isolating features in the middle of tunes appears to be more difficult as does isolating specific musical events within the structure. A further level of thinking lies in the ability to compare and contrast more than one section of the music within the overall structure.

Repetition which is also a key feature of structure in the Music National Curriculum was also perceived by the children. The results reveal that, like pitch, duration and timbre, there is an optimum level of repetition/change on preference. In other words, the more a tune sounded as if it were repeating the same ideas the less it was liked: if it changed too much it was also less well liked. Global perceptions within this dimension refer to the simplicity and the complexity of the music. As with the perception of repetition, this finding is also linked to the Heyduk's (1975) optimum complexity rating. The recognition of *patterns* within the tunes were perceived by the children to a lesser degree. A further degree of differentation occurs when a child can articulate *which* part of the music is repeated (e.g. a rhythm, a melody), and *how* it is repeated (e.g. up an octave). There also seems to be a point at which the children become aware of the structural process of the music, demonstrating both an understanding of how a tune is put together as well as an appreciation of its craftsmanship.

The responses in the **Style** category show increasing levels of perception. For example styles are stereotyped in relation to countries. Further differentiation occurs when children identify the musical characteristics which contribute to the understanding of the stereotype. Whereas Baumann (1960) found that by the age of 14 listeners could respond to music in terms of qualities of style (e.g. it is jazzy), the present results show that children from the age of 9 can respond in this way. The ability to detect style, similarly, was also a feature of the childrens responses across both Key Stages. This was found over a range of styles associated with peers compositions, performers, pop songs, songs which the pupils were singing or had sung, or which related to computers, TV, media, musicals and film. Children also located style responses to contexts and showed style preferences. The quantitative results showed that sensitivity to style was a particular feature of Key Stage 2 children and it came fourth out of the five categories. The responses which reflect home video/television sources may account for this type of response by the younger children, as this is a main source of their musical listening experience. Style was not a particular feature of children up to the age of 13 within the sample of Key Stage 3. This corroborates Green's view (1997, p. 148) that the majority of children 'under the age of fourteen rarely have the maturity, the wherewithal, the freedom and financial means to be thoroughly immersed .... in sub-cultures' and the musical styles and identities associated with them.

In the category of **Mood** the results show that many responses reflected positive and negative emotions in terms of *happy* and *sad*. It is worth noting that Kratus (1993) found that children within the age range 6-12 years interpreted the emotional character of a piece of music consistently using these parameters. Different types of response reflect differing levels of aesthetic appraisal. For example a lower level response is where the listener identifies with the mood e.g. 'it makes *me* feel sad', as opposed to higher level responses where the listener identifies a mood, or changes of mood *within* a tune e.g. *'the tune* sounded jolly'.

Cross modal or synaesthetic responses are demonstrated through kinaesthetic references which connect mood to movement. More aesthetic dimensions of the childrens' responses reveal a sensitivity to the *atmosphere* created by a piece and the intuitive sense of *feeling* and *life* within a composition The quantitative results show that the younger Key Stage 2 children did not produce significantly more responses than the older Key Stage 3 children, although there was a marginal increase in the number of responses given by the girls.

For the purposes of quantitative analysis the incidents of preference were coded within Evaluation of Composition. However, within this qualitative analysis reference is also made to some of these responses across other categories. The quantitative analysis shows that this category received the greater number of responses across all five categories, with more responses given by the older Key Stage 3 children and more by the girls. The qualitative analysis shows the range response demonstrating the ways in which children show through their use of language, the ability to move from *unsubstantiated* value judgements towards more *complex* modes of perception. To illustrate this I shall now give examples of responses in order of increasing complexity and relate this to Hargreaves and Galton's (1996) five phase model of musical development.

The results show that many children express their first views about music in simple terms of personal preference e.g. 'brilliant', 'boring', 'nice', 'I like it'. As the process of discrimination evolves, value judgements become qualified e.g. 'quite nice', 'really good'. Value judgements then become attached to one musical element e.g. 'nice sound'. As the results show, far more responses were given by the younger Key Stage 2 children, especially for the elements of dynamics and timbre. The perceptions of these qualities, especially the sounds used, show an early

listening and appraising phase which may be equated with the **pre-symbolic phase** of Hargreaves and Galton's model.

Responses then progress to describe the music in *global* terms often relating music to a general sense of *style,* e.g. 'it sounded jazzy'; *mood,* e.g. 'it made me feel sad', 'a happy tune', and through *metaphor* e.g. 'I like the downhill effect'. Other responses which demonstrate a single 'concrete' dimension of the music focus on one element of the music 'e.g. 'good rhythm', 'it goes up and down' and also the mechanical aspects of the sound production and performance e.g. 'it has few jolts', 'she hit a couple of wrong notes'. The perceptions of these qualities demonstrate a listening and appraising phase which can may be equated with the **figural** phase of Hargreaves and Galton's model. A further development in the type of responses evolves as children qualify more than one musical element in the same expression e.g. 'nice sound, 'good rhythm'.

Responses which can be equated with the **schematic** phase of Hargreaves and Galton's model show a further 'interconnectedness', i.e. when the responses refer to the scheme of a piece as a whole and not just in its constituent parts. Sometimes this sense is expressed in terms of the narrative structure of the music e.g. 'beginning good but the end spoilt it a bit', 'the end was so good', 'nothing happens', 'it did not lead anywhere', 'you sort of knew which note would come next'. The music is also perceived in more than one dimension, and particularly as one dimension having an effect on the other e.g. 'nice tune, and it has a good rhythm but not an ending'. These responses expose the expectations or schema in the music and as such mark another phase in listening and appraising. It is in this phase that children expect their music to conform to conventions and therefore do not tolerate extremes of pitch, duration, volume, repetition and change. Also the

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children's aesthetic equates with conventions within vernacular styles e.g. music for cartoons.

Responses which can be said to equate with the **rule systems** phase of Hargreaves and Galton's model show a further development in listening and appraising skills. This is demonstrated in responses which discriminate between appropriateness of one dimension of the music for the style and idiom of the music i.e. the appropriateness of the sound and tempo for the tune, the appropriateness of the music for occasions, situations, contexts. One example is 'I think the sound is relevant for the tune'. There is a concern that the music sounds 'real' or 'proper'.

Listening responses which can be paralleled with the final **professional phase** in Hargreaves and Galton's model show a further development. For example, some responses appear to extend beyond conventions. This is evident when children appear to tolerate a greater diversity of pitch within a tune, prefer longer tunes, more complex tunes and more changes within a tune. Also in this phase of development listening responses appear to show a degree of reflection which demonstrates an understanding of the structural process of the music and its craftsmanship, i.e. how it is thought out and put together. In this phase originality, imagination, creativity and difference are also highly valued e.g. 'I thought it was good, it was all different'. It appears that responses become increasingly more differentiated and are less associated with subjective preference and more analytical. Also new and unexpected relationships are made e.g. 'its high but it is clear, fast and happy', 'vague but quite interesting'. Also in this phase responses show an aesthetic intuitive grasp of the music e.g. 'there is something going on'. When it might be argued that some of the younger children use metaphor in the absence of a more technical vocabulary, metaphor at this phase evokes a powerful sense, capable of capturing the essence of the music e.g. 'it was a bit cramped', 'it was getting to the

point of a piece'. Hargreaves and Galton's final phase is defined as starting in the teenage years which equates with the beginning of Key Stage 3.

The phases represented here have all been identified within the responses within the category of **Evaluation of Composition** and are representative of a sample of children between Key Stage 2 and 3. Responses in the **Evaluation of Performance** category become more differentiated as the children separate out preference from composition and performance and between the technical demands of the piece and the experience of the player.

In the category analysis other issues emerged in the way the children expressed themselves. As children use language in different ways the categorisation becomes more complex as one construct can belong to more than one category. For example, many of the preferences show that the children used a peer language to value their work. At the time of collecting the data the children valued their work using words such as 'sweet', 'cute', 'scary', 'strange', 'weird' and 'unreal'. On the one hand, these responses could be categorised within the Mood category, on the other hand, the social use of the language suggests that these comments are more aligned to the Evaluation of Composition. This coded language may vary from class to class, year to year, school to school: how far words are coined within the social group, or created and perpetuated by media forces is debatable. What is apparent is that part of being accepted into the peer group at this age involves using these value-laden words. In this cultural setting, it is just as likely that a music composition can be 'scary' as can a new pair of trainers. The implications for the research show the complexity of categorising language without taking its social context into account.

The way children also use metaphor also raises interesting questions for research. For example the response '*a good sharp tune*' can be interpreted at different levels.

On one level of musical understanding, 'sharp' is a quality which is aligned to pitch. A note can be sharp or flat and this discrimination is built on the understanding that pitches can be in tune or out of tune (Musical Elements/pitch). But in the context of this statement, the word 'sharp' may function linguistically as a metaphor to describe a quality in the music equated with 'sharp' as in knife - 'cutting', 'incisive'. It might therefore describe timbre, the quality of the sound (Musical Elements/timbre). Equally, the term may be borrowed from visual literacy to mean 'sharp' in the sense of 'in focus'. In this way it could be used evaluatively as it expresses a judgement about the quality of the composition (Evaluation of Composition). Whatever the literal meaning of the word 'sharp', the personal understanding suggests that 'sharp' = good and therefore for the purposes of analysis the weighting would be towards the category of Evaluation of Composition.

The range of responses to a single tune shows the richness and diversity in the way the children approached the listening task. For example, a tune composed by a pupil in Key Stage 2 elicited all of the following responses: 'went on a bit', 'good tune but quite a few mistakes', 'I did not like it much it was a bit random', 'it was out of tune', 'it was a bit muddled but nice', 'it was Egyptian-like', 'it doesn't go well', 'it sounded like an old man walking, 'it could be described as sad', 'it was a bit creepy', 'she got some notes wrong and that sounded good'.

What emerges from this categorisation is the sense of the music which presents a listening challenge and which the children describe in different ways. Some responses show a critical stance (Evaluation of Composition), e.g. 'went on a bit', 'a bit random', 'it doesn't go well'. Some language choices reflect Mood responses e.g. 'sad', 'creepy'. Others use movement metaphor to describe a quality of the music e.g. 'it sounded like an old man walking'. Another, shows a stylistic reference i.e. something in the music is associated with the listeners' experience of

a quasi-oriental 'Egyptian' style. A development in the conceptual understanding is revealed in the way that some responses present two ideas alongside each other. On the one hand this tune appears to break musical rules yet on the other hand, appeals to the listener e.g. 'it was a bit muddled but nice', 'she got some notes wrong and that sounded good'. From these statements there may be an absence of technical vocabulary, but the language certainly communicates a sense of the music. Typically, the only technical statement e.g. 'it sounds out of tune' is adopted inappropriately. Whilst the tune may appear 'out-of something' technically speaking it is not out of tune. Rather, the perception describes the intervallic range within the pitch contour. The conclusion to be drawn shows that the use of technical vocabulary may not be applied correctly nor show evidence of musical understanding.

Another consideration in the analysis is how far the responses were influenced by *musical expertise* and peer group issues of *perceived musical expertise, status, friendship* and *competition*. This is illustrated by examples from the qualitative data which take into account biographical and social observations of the children. For example, the experienced pianist responds with a voice of expertise : 'could have practised more', 'original and good for someone who doesn't play the piano'. The saxophonist with an experience of playing jazz responds using a phraseology common to jazz style e.g. 'doesn't make the most of the rests, needs to sit back on the beat'.

From my experience as teacher and researcher some responses reflect the relative *social status* of the children within the class. The use of the term high/low status is defined by my observation of how the children interacted and whom they held in esteem amongst their peers. For example in a class of 22 children which took part in the study, 21 responded positively to Bruce's composition. Bruce not only had a high social status within the group he also had piano skills and produced an upbeat

pastiche blues tune. Only one girl, Jennifer, differed in her response e.g. 'a nice tune, but it wasn't original'. Her comment and lower rating differed from the rest of her peers. Whilst she appreciates the tune, she devalues it because it is not original. From my social observations Jennifer held high status in the group, and whilst it can be argued may have had an independent way of thinking which was not influenced by the group, she also had the personal confidence and status to make this challenge. Another example, is drawn for the results of the same class. Caroline was also a competent piano player and produced a well played pastiche tune. However, she held low personal status in the class. Whilst some of her friends credited her in statements such as 'it's a real piece', 'I like the tune and the beat', many discredited her composition in terms such as 'not very interesting', 'like music for children' and 'it's copied'. Further examples from the qualitative analysis show the way language is used to demonstrate group allegiance or peer 'put-downs' as follows e.g. 'it's a soppy tune' (high status girl to low status boy), 'unoriginal' (high status girl to low status girl), 'it's babyish' (high status girl to low status girl), 'catchy tune but not as good as Louise's (girl friendship and regard for Louise as a piano player), 'it's a good muck around' (boys friendship group). The qualitative analysis therefore reveals that additional factors need to be taken into consideration. The particular value of a teacher/researcher is the ability to analyse internal social hierarchy within classes which produces another level of subjectivity beyond that of gender noted in the quantitative studies and here in Study 6. As such this analysis complements the broad dimensions of the quantitative analysis by revealing the richness and complexity which contributes to a fuller sense of children's aesthetic perception of music.

5.2 Case Studies

I shall now present 5 case studies. These have been selected from the sample of children in the research to illustrate individual listening styles across Key Stage 2 and 3 and to show characteristic features of increasingly sophisticated aesthetic profiles. The evidence is selected from their individual responses to Studies 1-6 as well as their instrumental experience. I shall use my adaptation of Hargreaves and Galton's (1996) model to identify phases of appraisal.

CASE STUDY 1 : ANNIE

At the time of the research Annie was in Year 5 of Key Stage 2. She was a non - instrumentalist.

In Study 1 (What Makes a Good Tune?) Annie produces responses which refer to rhythm. She qualifies her thinking in terms of a 'flow' and 'strong beat'. Her pattern of responses is typical of the sample as a whole as she thinks about the question in terms of the category **Musical Elements**.

In Study 2 (Preference Ratings of Four Tunes) and Study 3 (Written Responses to Four Tunes) her listening profile is as follows:

Tune 1 : This is rated 2/3 and the reason given is that it has 'a rhythm and a beat'. No attempt is made to discriminate within the dimension of **Musical Elements/duration**. The results of the quantitative analysis show that she rates this tune higher than the lower rating given by the sample as a whole.

Tune 2 : This is also rated 2/3. This time Annie makes a comparative statement 'same as before but better'. Her response shows her perception of the rhythm which was the same as in Tune 1 and, whilst she does not give it a higher numerical

rating, her comment shows a higher value. As this tune was characterised by the tonal descending sequence and resolution, her preference can be accounted for by the tonality of the tune. The language used in her response shows a simple valuing of one dimension of the tune, and one which takes a general global sense of style similarity, which is an example of a figural appraisal.

Tune 3 : This is rated the highest (1/3). Again she construes the tune in terms of her schema of *beat* and *rhythm*. However this time she is also sensitive to the *mood* of the tune e.g. 'fun and jolly with a beat and rhythm'. Again this is a typical figural response which focuses on one dimension of the music and reflects a global perception of mood and style. Her liking for the piece conforms to the highest rating given across the sample.

Tune 4 : This is rated 2/3. Again Annie notices the similarity of rhythm to Tune 3. This time her comment 'funny' may relate to the strange quality of the tune because of its atonal organisation as opposed to *funny* in the sense of the mood *'fun'* . Her rating conforms to the rating across the sample as a whole and is also typical of another figural appraisal.

In Study 5 (Children's Scored Self Ratings of their Own Compositions) Annie rated her own piece 4/10. Her average rating for her peers' tunes was 6.6. This shows a decrease in her rating of her own tune in relation to her mean rating of the class as a whole (Study 4: Children's Rating of their Own Composition in relation to the Class Mean). This is typical for her gender. Her own personal comment is an unqualified value judgement e.g. 'boring'.

The way Annie responds is an example of a more limited profile. It is more limited in a number of ways. For example 11/15 of her responses contain just one idea. She presents 6 responses which are unsubstantiated value judgements e.g. 'I just

like it' and 6 responses which refer to the *rhythm* and the *beat*. This shows her dominant patterns of construing the music. It is also consistent with the way she thought about what made a good tune in Study 1 and the application of her construct system to the set tunes in Studies 2 and 3. Other responses refer to **Mood** e.g. 'spooky' and **Style** e.g. 'oriental', which are also typical of figural appraisal. What stands out is her particular focus on whether the tune was original or not. This differentiation is more characteristic of a higher phase of appraisal.

To summarise, Annie's profile of responses is typical of the early phase of appraisal in that her responses contain one idea, the construct system is limited to three dominant categories, one which is simply based on preference, one which is consistent throughout the studies, and one which claims a quality which is often associated with a higher phase of appraisal. In this way, apart from her sensitivity to originality, her perception is fixed within a figural phase of perception and is relatively unsophisticated.

CASE STUDY 2 : BEN

At the time of the research Ben was in a year 6 class in the last year of Key Stage 2. He had been playing the trumpet for a year.

In Study 1 (What Makes a Good Tune?) Ben produces one response, 'steady music', which can be categorised in **Musical Elements : tempo**. Another response, 'good beat', can be categorised in the **Evaluation of Composition**. This conforms to the pattern of the sample as a whole, which shows how the children thought about dimensions of a good tune mainly in terms of Musical Elements followed by Evaluation of Composition.

In Study 2 (Preference Ratings of Four Tunes) and Study 3 (Written Responses to Four Tunes) his listening profile is as follows:

Tune 1 : this is rated the lowest (3/3) and follows the same pattern for the sample. The reason he gives is 'it just didn't sound right' which is an evaluation of the whole tune. This corresponds to many of the responses for this age group which show a listening sensitivity for the music to sound 'proper' and as such is an example of a rule systems phase of appraisal.

Tune 2 : Ben rated this equal first (1/3) which was higher than the ratings across the sample as a whole. The reason he gives is because 'it sounds fun'. This is an example of a mood response which is differentiated in as far as he does not identify with the emotion itself. It is a global perception.

Tune 3 : Ben rated this equal first (1/3) which is congruent with the highest rating given by the whole sample. The reason he gives - 'it was fast and good', conforms to the results shown in Study 6, which show that boys have a sensitivity and preference for fast music. Again it focuses on one dimension of the music and also states a preference. This is an example of a figural appraisal.

Tune 4 : Ben rated this third (3/3), which confirms to the pattern across the sample. The reason given is 'the notes were not very good' which describes his perception of the atonal pitch organisation of the tune. The response picks out a single dimension of the music and as such is another example of a figural appraisal.

In Study 5 (Children's Scored Self Ratings of their Own Compositions) Ben rated his own piece 9/10. His average rating for the tunes in his class was 6.2 which conforms to the data in Study 4 (Children's Rating of their Own Composition in

relation to the Class Mean) showing how boys rate themselves higher. His own personal comment - 'because it is mine', shows his own subjectivity.

The responses in Study 6 show a mixture of responses ranging from 2 unsubstantiated value judgements to 7 figural appraisals which focus on one dimension only. In these responses he shows a sensitivity to 4 of the 7 subcategories within **Musical Elements; pitch, duration, timbre, structure,** as well as responses within **Style** and **Mood.** These responses show that he doesn't like the extremes of pitch and length in two of the compositions which is characteristic of a schematic phase of appraisal. Another schematic appraisal refers to structure where he values an aspect of the music in relation to the whole tune. One example of a rule systems appraisal in his profile is shown when he responds to the music in terms of it not sounding right.

Dan's profile contains a higher number of figural appraisals which focus on an evaluation of one dimension of music and which also include global terms of expression. His thinking about music, demonstrated in Study 1 is figural and this is perpetuated in his perception of music in Studies 3 and 6. The case study illustrates how his responses conform to the patterns established in the research for his age and gender. His responses do not reflect higher phases of appraisal, which might have been the case given his musical training on the trumpet.

CASE STUDY 3 : CLARE

At the time of the research Clare was in a year 5 class within Key Stage 2.
She had been receiving piano lessons for three years.

In Study 1 (What Makes a Good Tune?) Clare produces far more responses than Ben which is representative of the overall trend across the sample at Key Stage 2 between girls and boys. Her responses show a greater deal of sophistication. For

example, she is concerned about a tune needing a 'good player and good instruments' (**Evaluation of Performance**). She shows a differentation in her thinking about **Musical Elements / timbre** i.e. she states a preference for a tune to have lots of sounds but 'not too many'. She also discriminates within the element of **Musical Elements / dynamics** e.g. 'I like music which changes from soft to loud'. The elements of music which she thinks most about are those which are perceived most by younger children at the pre-symbolic stage, i.e. timbre and dynamics. However, it is interesting to note how her thinking is differentiated by a gradation of volume. Her responses also show strong subjective personal preferences.

In Study 2 (Preference Ratings of Four Tunes) and Study 3 (Written Responses to Four Tunes) her ratings of the four tunes show that Tunes 1 and 4 are rated lower than Tunes 2 and 3 which conforms to the pattern across the sample as a whole.

Tune 1 : Clare rates Tune 1 equal lowest (3/3) and the reason she gives is because 'I think the end is absolutely stupid'. This is a schematic response demonstrating an understanding of the end of the piece in relation to the whole tune.

Tune 2 : Clare rated this 2/3. Her response shows her ability to value the rhythmic quality of the music e.g. 'quite rhythmical' whilst not enjoying the tune as a whole. In this way her response is more differentiated than one which is simply a global value judgement, and as such is an example of a schematic appraisal.

Tune 3 : Clare rated this the same as Tune 2 (2/3). The reason she gives is that 'it is too fast but quite nice'. Again her response is differentiated as she criticises her perception of one dimension of the music (tempo), within the sense of the whole tune. Here is another example of a schematic appraisal. Her preference for slow

music corroborates the results in the qualitative research, which suggests that girls prefer slower music.

Tune 4 : Like Tune 1, Clare rates this lowest (3/3). Her reason is because 'it changed too much'. Again this reveals a preference for music which conforms to conventions and is typical of a schematic phase of appraisal. A foot note at the bottom of her response sheet, which was added when the children had the

opportunity to share their responses, states 'Chantal said it was in the minor key and I don't like that'. Here we can see evidence of peer group influence. Like Clare , Chantal is also an instrumentalist in the class. The comment illustrates two issues. First , Clare agrees with Chantal that 'it is in the minor key'. Second, whilst her sensitivity to the tonality of the tune is recorded, the technical reference is misappropriated as the tune is atonal and not in a minor key.

In Study 5 (Children's Scored Self Ratings of their Own Compositions) Clare rates her piece 6.5 out of 10. Her average rating for the tunes in her class was 6.6 . From the results in Study 4 (Children's Rating of their Own Composition in relation to the Class Mean) this shows just a slight decrease in her own rating in relation to how she perceives her peers compositions. According to my research this is typical of her gender, where the girls rate themselves lower than the boys. Her own personal comment is ' It was OK but I thought it was a bit weird and the notes didn't go right'. This shows a sense of the function of the notes within the tune as a whole.

Clare gives a larger number of responses than Ben, and these are distributed over a wider range of category . For example she responds in 3/7 sub-categories of **Musical Elements / pitch, duration, dynamics, Style, Mood, Evaluation of Composition.** Her profile is characterised by the fact that each response contains a number of ideas which move between different categories of

perception e.g. 'it repeated a lot' (**Musical Elements / structure** and

Evaluation of Composition), 'quite scary though' (**Evaluation of**

Composition and **Mood**). Her response contains a mixture of phases of

appraisal. For example, 'it was too short' is characteristic of a schematic appraisal.

'It wasn't a real tune' is an example of a rule systems appraisal. Some of her

responses demonstrate an understanding for the appropriateness of the length for

the composition e.g. 'it was quite short but to the point'. This is another example of

a rule systems appraisal. Another response e.g. 'it was different to the others but it

went on too long' shows a discrimination which values difference over convention

which is one dimension within the professional phase of appraisal.

To summarise, Clare's profile shows a large number of responses. As the

quantitative results show this is typical of a girl of her age. The qualitative analysis

also shows how her perception of music is more differentiated and advanced for her

age group. Her listening profile demonstrates a range of responses within the

categories as well as responses which can be categorised across the schematic, rule

systems and professional phases. This may be accounted for by her experience of

playing the piano.

CASE STUDY 4 : DAN

At the time of research Dan was in Year 8 within Key Stage 2. He did not have a

musical training.

In Study 1 (What Makes a Good Tune?) Dan produces a far greater number of

responses than his male counterparts. In this way his profile is more typical of a

female profile for his age. He categorises his own thinking into subsections

concerned with the **Musical Elements / timbre** e.g. 'lead', 'bass', 'singing',

'saxophone', 'lots of instruments'. It is clear that his idea of a tune is linked to the

characteristic instruments of pop music and the presentation of a pop 'song' e.g. 'good lyrics'. In this way it is typical of a rule systems phase of thinking about music. He also thinks in terms of **Musical Elements / structure** e.g. 'not repetitious' and **Evaluation of Composition** e.g. 'and interesting mixture' .

In Study 2 (Preference Ratings of Four Tunes) and Study 3 (Written Responses to Four Tunes) his pattern of rating is slightly different from the sample as a whole as he rates Tunes 1 and 2 highest and Tunes 3 and 4 as the lowest.

Tune 1 : This is rated 2/3 and the reason given is because the 'gaps in between the notes are too long'. This refers to the repeated crotchet rhythm which does not vary. Rather than focusing on the notes themselves, Dan appears to be listening to the space *in between* rather in the same way that objects are perceived in relation to the space around them in visual art.

Tune 2 : This is also rated second 2/3. His response refers **to Musical Elements / structure** e.g. 'repetitious and no variety or difference'. In this way his perception of this tune is consistent of the way he thinks about a tune. The structural dimension suggests that Dan's appraisal is more schematic than figural.

Tune 3 : This is rated lowest (3/3) whereas most of the sample rated this the highest. His reason is that it is 'too corny and catchy and no variety'. Clearly, Dan recognises the conforming qualities of the melodic line, however his aesthetic sense appears to be 'looking' for something beyond the norm. In this way it might be said that Dan's response is moving away from rule systems and into a professional phase of appraisal.

Tune 4 : This is also rated the lowest (3/3) and the reason given is 'much too plain and boring'. In one sense this was the most complex tune and on the strength of his

ratings for tunes 1-3 it might have been expected that he rate this higher. One reason to account for his low rating might be that Tune 4 might have been *too* complex for Dan to like it. In this way he rates this tune in a similar way to his peers.

In Study 5 (Children's Scored Self Ratings of their Own Compositions) Dan rated his piece 10/10. His average rating for the tunes was 6.2. From the results of Study 4 (Children's Rating of their Own Composition in relation to the Class Mean) this shows an increase in his rating of his own tune in relation to his mean rating of the class as a whole. This is typical for his age and gender (see Figure 4.5.1). His own personal comment is an unqualified value judgement : 'excellent'.

His profile of responses shows a degree of breadth and also differentiation. For example, his responses include 5 of the 7 of the subcategories in **Music Elements**. These are **pitch, duration, tempo, timbre** and **structure**. An example of differentiation occurs in his reference to the sound where he goes beyond a recognition of the type of sound to the use of the instruments e.g. good use of keyboard'. **Style** is not a feature of his profile. **Mood** references are not specified; instead, he uses the word 'feeling' to demonstrate an aesthetic sense of the word e.g. 'good feeling', 'not much feeling'. Many of his responses within **Evaluation of Compositions** are substantiated across several dimensions of the music e.g. 'good because it is original and good use of notes'. He also makes references to the quality of performance e.g. 'could have been practised more'. Dan's responses also show the ability to differentiate within different dimensions within the same piece e.g. 'long and interesting but I don't like it when it goes up'. One characteristic dimension of his construct system is originality, e.g. too slow and unoriginal but good beginning', which suggests a profile towards the professional phase of appraising. Another characteristic of his construct system is that he applies the same constructs in the category of Evaluation of Performance between Study 1 and 6, for example, he refers to the performance quality on the

keyboard. He conforms to a liking for faster tunes and also for longer tunes, which is characteristic at Key Stage 3.

To summarise, Dan's profile is relatively sophisticated as he construes across 4 of the 5 categories of perception. Although he does not mention specific styles of music he certainly exhibits an understanding of idiom through his thinking about music and through the **Evaluation of Performance**. He also differentiates within and across elements and gives responses towards the professional phase which as Hargreaves and Galton suggest begins in the teenage years.

CASE STUDY 5 : EMILY

At the time of research Emily was in year 8 within Key Stage 3. She sang in the school choir and had Grade 4 piano.

In Study 1 (What Makes a Good Tune?) Emily produces a high number of responses which is typical for her age and gender. Her responses show that she construes 'tune' as also something with words e.g. 'easy to learn the words'. This could also be accounted for by her involvement with singing and also her interest in pop music. Her thinking reflects a sensitivity towards **Musical Elements / pitch** and **duration** e.g. ' rhythm', 'beat', 'timing'. Her responses also demonstrate her aesthetic sense e.g. 'easy to listen to', 'catchy', 'a tune that stays in your head'.

In Study 2 (Preference Ratings of Four Tunes) and Study 3 (Written Responses to Four Tunes) her ratings of the four tunes show that Tunes 1 and 4 are rated lower than Tunes 2 and 3 which conforms to the quantitative results.

Tune 1 : Emily rates this 2/3. Her reasoning is differentiated in terms of the **Musical Elements : pitch** and **structure** in relation to the whole e.g. 'it is OK

till the last notes, they went badly with the rest of the tune'. This is an example of a schematic appraisal.

Tune 2 : Emily rated this highest (1/3). Again her response values the sense of the tune as a whole e.g. 'all the notes went well together' as well her evaluation of the appropriate use of notes for the tune. This is can be categorised as a rule systems phase of appraisal. It also shows her ability to apply her *thinking* pattern of construal to her *perception* of music.

Tune 3 : Emily rated this the same as Tune 2 (1/3). The reasons she gives refer to **Musical Elements / tempo** e.g. 'it was faster' and **Evaluation of Composition,** e.g. 'the beat was good', 'the notes fitted together well'. She also demonstrates a sense of her personal aesthetic e.g. 'it was also easy to listen to'. In addition her *responses* are consistent with her *thinking* about what makes a good tune. This response shows a figural appraisal across different dimensions of the music. Whilst she values this tune highly, which is consistent across the sample, she is also able to differentiate her responses in a range of ways.

Tune 4 : Emily rates this lowest (3/3) and the reasons given are consistent with her way of thinking demonstrated in Study 1 in that her construal patterns refer to the dimension of *easy listening* e.g. 'it was not easy to listen to' and the 'notes did not go together'. However, despite rating this the lowest, she is also able to credit the quality of the beat, which suggests some degree of detachment to her own personal opinion. This suggests a moving towards a professional phase of appraisal.

In Study 5 (Children's Scored Self Ratings of their Own Compositions), Emily rates her piece 1/10 and does not give a reason. Her average rating for the tunes was 6.5/10. Her rating of her tune was her lowest rating overall and is typical of the girls devaluing their own work especially at Key Stage 3.

To summarise, Emily's profile shows a wide range of responses. For example she construes in 5 out of the 7 subcategories of **Musical Elements / pitch, duration, dynamics, tempo** and **structure.** Many of the responses are constructed across several dimensions e.g. 'notes very good, beat excellent, flows amazingly' . She is less concerned with **Style** and **Mood** but rather with the **Evaluation of Composition** as a whole e.g. 'not thought out enough', 'flows well'. She also shows the ability to see the appropriateness of one dimension in relation to the tune as a whole e.g. 'short but effective' which is an example of a rule systems appraisal.

The quantitative results show that girls produce more responses than boys across the studies, especially at Key Stage 3, and in this way Emily's profile is typical for her age and gender. Her profile is characterised by a greater number of responses in the schematic and rule systems phases of appraisal. It is also characterised by a greater consistency of the application of her patterns of construal across the different studies. The concentration of responses which focus on **Musical Elements :** **structure** and the balance of musical elements within a sense of the whole tune may be attributed to her experience of playing the piano. Even though she is a very competent player her responses focus on the qualities of the composition and not the **Evaluation of Performance.**

Discussion of Case Studies

From the initial analysis of the children's responses the results showed that different pupils produce different listening profiles made up of a range of language choices both *within* categories and *across* the different categories of perception. For example, some pupils' listening profiles were dominated by personal preferences, others by references to the musical elements. Others showed a range of responses

drawing from a number of categories which demonstrated different degrees of interconnection and differentiation.

The typology of responses show some characteristics which can be interpreted using Hargreaves and Galton's model of aesthetic development in music to show phases of development. This sheds further light on my investigation into how children adapt and refine their construct systems which are both typical and atypical of their age and gender and which show personal characteristics.

These can be summarised as follows:

- some children produce more responses than others;

- some children produce responses which contain more than one idea or construct;

- some children show fixed and limited patterns of construing in a limited number of categories whilst others show a sensitivity across a wider range of categories of perception;

- some children produce a profile characterised by one phase of appraisal;

- some children produce a profile which contains more than one phase of appraisal in sequence;

- some children produce a profile of responses which demonstrate a leap into a more advanced phase which is not necessarily sequential;

- some children demonstrate an ability to apply their constructs more consistently between thinking about music and responding to music.

Whilst the quantitative analysis maps out broad patterns of response with respect to age, gender and category of perception, the qualitative analysis shows the richness of the differentation within the categories. At each respective stage further analysis could be undertaken which was beyond the scope of this particular study. The

examples cited in the Case Studies both confirm the results of the quantitative analysis and also demonstrate the qualities which make up individual aesthetic listening profiles. It is recognised that the case studies could be developed in more detail and on a longtitudinal basis.

To conclude, from the evidence presented here, aesthetic understanding in music perception is more complex than the model currently presented in the Music National Curriculum documentation. The results of this analysis suggest that progression is not just demonstrated by successive analytical discriminations within and between each musical element in turn, but that it occurs when relationships and connections are made across a range of categories of perception with increasing degrees of differentation and integration. In this way the results contribute to a further understanding of how development in the arts (Gardner 1983, 1994) is marked by continuities and discontinuities across and within domain specific properties. The results develop a view of aesthetic perception which takes into account affective, attitudinal and personal listening responses following the APU: Aesthetic Development (1983), Goodman (1984), Gilbert/Mellor (1990) and Swanwick (1996).

Taking Chapters 4 and 5 together which investigate pupils' perceptions, it can be seen how the analysis presents the reader with three successive layers of results. First, the quantitative analysis presents the broader picture revealing significant differences with respect to age, gender and category of perception. The second qualitative analysis gives examples of the language used within and between each category of perception and also takes into account the social context. Finally the case studies present 'snapshots' of individual listening profiles which also take into account the effects of training. These show how Hargreaves and Galton's model (1996) can be adapted to analyse verbal listening responses.

CHAPTER 6

RESULTS OF THE MAIN STUDY:

PART II : TEACHERS' PERCEPTIONS OF PUPILS' COMPOSITIONS : QUANTITATIVE ANALYSIS

6.1 Study 1 : To Compare the Mean Scores of the Use of the Rating Scales for Experts and Novices.

Design

62 student teachers took part in the study. As described in Chapter 3, 36 student teachers were classified as 'experts' i.e. those selected for teacher training on the basis of their specialism in music (an A level in music and/or degree in music). The 'novice' group comprised 26 student teachers without a specialism in music. Both the experts and the novices were presented with 10 pupil compositions and were asked to rate these using 14 bi-polar constructs.

Construct Inventory

The construct inventory comprised 14 bi-polar constructs. The selection of the constructs is described in Chapter 3. Table 6.1.1 gives a summary of the constructs.

Table 6.1.1: Study 1
Summary of Constructs

	CONSTRUCTS	
	-	+
1	not rhythmic	rhythmic
2	dull	lively
3	unstructured	structured
4	limited range	wide ranging
5	unfamiliar	familiar
6	not memorable	memorable
7	not atmospheric	atmospheric
8	disjointed	flowing
9	unoriginal	original
10	not tuneful	tuneful
11	simple	complex
12	unfinished	finished
13	technically unskilful	technically skilful
14	not appealing	appealing

Each construct was arranged by the researcher on a repertory grid for rating on a 7 point scale.

Test Material

The generation of the pupil compositions is described in Chapter 3. For the purposes of this study 10 compositions were randomly selected and recorded onto audio tape. A brief description of each is detailed for the reader in Table 6.1.2 and a CD recording is included in Audio Appendix 2.

Table 6.1.2

Description of 10 pupils' compositions

Compositions	Keyboard Sound	Structure	Other comments
1	piano	4 equal phrases 1x2 repeated 3 rising 4 to a close closure	non-pianist played well
2	flute	jaunty rhythm repeats closure	non-pianist played well
3	piano	wide range chromatic octave leaps trills	pianist played well imaginative may have improvised last section
4	piano	descending scale 4 notes repeated slow then fast upward glissando closure	non-pianist played well governed
5	sfx sound	slow start - gets faster - repeats 4 notes changes note and end to lead to random passage - like the first ends with chord clusters closure	non-pianist appears to evolve ideas in process spooky sound imaginative
6	piano	2 descending scales leaps to thirds repeated descending scale closure	some piano skills neat - rhythmically unvaried well constructed

7	guitar	starts off with bass figure - rhythmic repeats changes 2 chords descending scale repeats final figure and slows down closure	non-pianist sense of listening and evolving material distinctive
8	flute	2 phrases starts to repeat and changes end new third phrase - new figure repeats initial ending with a closing figure	pianist well rounded composition
9	string + marimba	4 striking chord clusters blues - answering phrase 3 chord clusters repeated on the off beat Same formula for second section with a finishing phrase	pianist unison hands blues feel rounded and finished
10	strings	broken chords repeated pedal first note 3rd section - scalic final passage return to tonic closure	pianist 2 separate sections

Procedure

All participants listened to all 10 pupil compositions. Each participant was asked to rate each of the 10 compositions by placing a tick on the rating scale for each construct e.g.

rhythmic :   : ✓ :   :   :   :   :   : non-rhythmic

One minute was given between each piece for the participants to complete the repertory grids on the given pro forma (see Appendix 6).

Analysis

The initial analysis produced a 10 x 36 matrix of ratings for each construct in the case of experts and a 10 x 26 matrix for novices. There were therefore 28 such matrices in all (14 for experts and 14 for novices). In order to make the data more manageable the next stage in the analysis involved producing a series of correlations. For each composition the scores of the 36 experts on each construct were correlated with the scores of the remaining thirteen constructs giving 10 (14 x 14) correlation matrices. A similar procedure was used for the 26 novices giving a second set of 10 (14 x14) correlation matrices. Since the matrix is symmetrical and the diagonal coefficients are ignored, this produced (14 x 13) ÷ 2 = 91 values. For each of these 91 correlations (i.e. the correlation of construct 1: rhythmic/not rhythmic with construct 2: dull/lively etc.) the average correlation over all 10 compositions was calculated together with the standard deviation. The results for the 91 pairs of possible correlations are shown in Table 6.1.3 for both experts and novices.

Results

Table 6.1.3 : Study 1
Comparisons of mean values of the correlation coefficients for use
of the rating scales by experts and novices.

Status	Number of Cases	Mean	SD	SE of Mean
Experts	91	0.2660	0.162	0.17
Novices	91	0.3072	0.160	0.17

The results show that there was no significant difference between the mean values of the correlation coefficients for use of the rating scales by the experts and novices (2 tailed independant t-test, p = 0.6, df =180).

Discussion

The objective of this study was to establish the consistency with which both expert and novice groups used the rating scales by comparing their correlations averaged over 10 compositions. The results of this comparison show there were no significant differences between how the experts and novices as groups used the rating scales. This suggested that individual members of each of the participant groups were reasonably well matched and that if further differences were found they should not be attributed to spurious individual differences within each of the respective 'expert' and 'novice' groups.

6.2 : Study 2 :   To Investigate Levels of Agreement in the use of the Rating Scale between the Experts and Novices when Evaluating the Qualities of 10 Compositions.

The design, construct inventory, test material, participants and procedure were the same as Study 1, described in section 6.1 above.

Analysis and Results

In order to investigate the extent to which experts and novices agreed in their use of the rating scale when evaluating the qualities of 10 compositions the analysis proceeded to total the number of the 91 correlation coefficients which were statistically significant ($p < 0.05$ - $p < 0.001$) across each matrix for each of the 10 compositions rated by the experts. This analysis was then repeated to calculate the total number of coefficients which were statistically significant for each of the 10

compositions for the novices. The maximum possible number of significant

correlation coefficients was therefore 910 for experts and novices respectively, a

total of 1820 in all. The results of the analysis are summarised in Table 6.2.1

Table 6.2.1 : Study 2
Differences between the number of statistically significant correlation
coefficients for each of the 10 compositions between experts and novices
together with their rank order.

Compositions	Experts [Rank Order]	Novices [Rank Order]	Total	Differences in Rank Order
1	56 [1]	17 [10]	73	9
2	19 [8]	23 [9]	42	1
3	32 [6=]	39 [3]	71	3
4	48 [2]	42 [2]	90	0
5	36 [4]	27 [8]	63	4
6	32 [6=]	33 [6]	65	0
7	39 [3]	31 [7]	70	4
8	16 [9]	37 [4]	53	5
9	33 [5]	34 [5]	67	0
10	12 [10]	48 [1]	60	9
TOTAL	323	331	654	

Table 6.2.1 shows that out of a possible 1820 correlation coefficients for both

matrices the total number which were statistically significant was 654. This total

expressed as a percentage is 35.9 %. For the experts 323 out of 910 (35.7%)

correlation coefficients were statistically significant. The novices' level of agreement

was 331 out of 910 (36.3%).The findings reveal that when experts and novices

used the rating scale there was only a small (0.4%) difference. In other words,

within their group the novices were as able to use the rating scales as consistently as

the experts. One possible explanation for this finding is that musical training may

not necessarily be a predictor of consistent judgement as to the quality of

compositions.

This analysis shows similarities and differences between the number of significant

correlations recorded for each composition separately. When experts and novices

applied the 14 constructs of the rating scale *both* the experts and the novices

produced greater levels of agreement for pieces 4, 6 and 9. A possible explanation

to account for this is the distinctive quality of each composition. For example, composition 4 was relatively predictable. It comprised a limited amount of musical material, a limited range of notes which were repeated - slow then fast, and it concluded with an upward glissando on the keyboard. In a similar way composition 6 comprised repeating phrases and was rhythmically predictable. Composition 9 had a clear cut blues style. The research recognises that these results are tentative. One way forward would be to replicate the study using a larger number of compositions and/or develop the work using an experimental methodology.

For the *experts* separately the three compositions which received the highest number of significant correlations were 1, 4, 7. The qualities of composition 4 have been discussed above. The most striking common feature of compositions 1 and 7 was that they were played by non-pianists yet the compositions were themselves distinctively different. Composition 1 comprised 4 equal phrases with a consistent beat and composition 7 appeared to evolve in its playing resulting in some rhythmic hesitancy. For the *novices* separately the compositions 10, 4 and 3 received the highest number of significant correlations. The qualities of composition 4 have been discussed above. The features which compositions 10 and 3 had in common were that they were both played by pianists and out of the sample were closely modelled on classical clichés.

The greatest *difference* between the respective levels of agreement can be seen in the differences in rank order for compositions 1 and 10. For experts the highest number of significant correlations was recorded for composition 1. Conversely, for novices, the lowest number of significant correlations was recorded for this composition. For the novices composition 10 received the highest number of significant correlations whilst the reverse was recorded for the experts.

The research recognises that conclusions regarding responses to specific musical characteristics are tentative given the small number of compositions employed. This signals an area for future research.

A key finding of this analysis was that out of the total possible number of recorded significant correlations both experts and novices were able to agree approximately to the ratio of 3:1 on the ranking of the compositions irrespective of their use of the rating scale. The analysis then proceeded to investigate differences in the levels of agreement between groups in the way the rating scale was used for each composition separately. The initial data therefore consisted of a set of 10 x 36 ratings for each construct for the experts and a set of 10 x 26 ratings for each construct for the novices. For each construct therefore a 10 x 10 correlation matrix was calculated. There were therefore $(10 \times 9) \div 2 = 45$ correlation coefficients for each construct for experts and novices respectively. The maximum number of significant correlations was therefore $2 (14 \times 45) = 1260$. From these matrices the number of statistically significant correlation coefficients ($p<0.05$ - $p<0.001$) were totalled for each of the 14 constructs for experts and novices. The results of this analysis are summarised in Table 6.2.2.

Table 6.2.2 : Study 2
Differences between the number of statistically significant coefficients
for each of the 14 constructs between experts and novices
across 10 compositions.

Constructs -	+	Experts [Rank Order]	Novices [Rank Order]	Total	Differences in Rank Order
not rhythmic	rhythmic	8 [6=]	7 [6=]	15	0
dull	lively	9 [4=]	2 [14]	11	10
unstructured	structured	4[13=]	9 [1=]	13	12
limited range	wide ranging	9 [4=]	6 [8=]	15	4
unfamiliar	familiar	6 [11]	8 [3=]	14	8
not memorable	memorable	13 [1]	9 [1=]	22	0
not atmospheric	atmospheric	7 [9=]	6 [8=]	13	1
disjointed	flowing	7 [9=]	5 [11]	12	2
unoriginal	original	11 [2]	8 [3=]	19	1
not tuneful	tuneful	4 [13=]	6 [8=]	10	5
simple	complex	8 [6=]	7 [6=]	15	0
unfinished	finished	10 [3]	3 [12=]	13	9
technically unskilful	technically skilful	8 [6=]	8 [3=]	16	3
not appealing	appealing	5 [12]	3 [12=]	8	0
TOTAL		109	87	196	

Comparing Table 6.2.1 and Table 6.2.2 shows that there was less agreement on how both experts and novices used the rating scales. Out of a possible 1260 correlation coefficients for both matrices the total number which were statistically significant was 196. This total expressed as a percentage is 15.5%. Differences were found between the number of statistically significant coefficients for each of the constructs between experts and novices across the 10 compositions. For the experts 109 out of 630 (17.3%) correlation coefficients were statistically significant. The novices' level of agreement was 87 out of 630 (13.8%). The findings reveal that when experts and novices used the rating scale there was a small (3.5%) difference in the level of agreement between experts and novices.

Whilst the number of significant correlations recorded for both experts and novices on each construct is relatively low, the rank order reveals some similarities and differences.

The number of correlation coefficients on the construct **memorable/not memorable** received the highest ranking for both experts and novices. Other correlation coefficients which also shared rank order between experts and novices were for the constructs **rhythmic/non rhythmic** (rank order 6), **simple/complex** (rank order 6), **appealing/not appealing** (rank order 12). The greatest difference in ranking order were on the constructs **structured/unstructured** and **dull/lively** where the experts produced more statistically significant coefficients for the latter and the novices the former. This might suggest that the experts' perception of the music may be linked to arousal factors whereas the novices to each composition's distinctive form.

For the *experts* many of the rankings were equal but the three which recorded the highest number of significant correlations were **memorable/not memorable, original/unoriginal** and **finished/unfinished**. Apart from the construct **memorable** which was common to both groups, one possible explanation for the higher levels of agreement by the experts on original/unoriginal and finished/unfinished, might be accounted for by the more developed sense of expectation and knowledge of technical closure devices. This evidence also suggests that the experts' listening aesthetic is dominated by considerations of the composition sounding finished and original.

There were also close rankings for the novices but the two highest were **structured/unstructured** and **memorable/not memorable,** and **familiar/unfamiliar** and **technically skilful/technically unskilful** respectively. This suggests that an important feature of the novices' listening

aesthetic was whether the compositions had a sense of structure as well as whether they were recognisable. It could be argued that these dimensions of perception take the 'sense' of the music as a whole and are therefore global perceptions. Another more dominant feature of novices' perception was whether the compositions were played well. This might be explained by the novices' expectations of the music to sound 'right' or, in the absence of an ability to focus on particular qualities of the composition itself, a focus on the quality of the performance.

By combining the results from both Tables 6.2.1 and 6.2.2 it would appear that the greatest level of agreement for the experts in their use of the rating scale was produced to compositions 1, 4 and 7 for the qualities of **memorability** (6) **originality** (9) and **being finished** (12). For the novices, the greatest level of agreement in their use of the rating scales was produced to compositions 10, 4 and 3 for the qualities of **structure** (3) **familiarity** (5) **memorability** (6) and **technical skill** (13). The results suggest that the experts and novices used the rating scales to share the number of statistically significant coefficients on the construct **memorability.** Yet differences in the levels of agreement were shown between groups. For example, for experts, the greater number of statistically significant correlations were for the constructs of **originality** and a sense of being **finished.** For the novices the greater number of statistically significant coefficients were recorded for their use of the constructs of **structure, familiarity** and **technical skill.**

Discussion

Within the context of this research it was likely that any levels of agreement between experts and novices could be attributed to their judgements of the compositions themselves, to their respective use of the measurement scales or to a combination of both factors. One of the aims of this study was to compare the levels of agreement between the experts and the novices when they evaluated the qualities of 10

compositions using the construct inventory. If musical expertise influences how we listen to a piece of music it might have been expected that the experts would reach higher levels of agreement in the use of particular constructs to judge different compositions.

Surprisingly, the results showed that there were few differences between the number of statistically significant correlation coefficients recorded for experts and novices in respect of the ratings of compositions and the use of constructs. It appears that at this stage of the analysis the results show that musical training did not effect judgement of the 10 compositions. This trend is confirmed in the rank order of the number of statistically significant correlation coefficients produced by both groups. For example, the second highest level of agreement produced by both the experts and novices was for composition 4. This can be accounted for by the distinctive quality of that particular composition: its short length, simple repeated phrase, limited range of notes and its precise playing.

As might have been expected and as the analysis has revealed, differences began to emerge in the levels of agreement of the rating scale between the experts and novices when evaluating the qualities of 10 compositions. This was revealed both in the differences in the number of statistically significant correlation coefficients produced in relation to the compositions and differences in the level of agreement for certain constructs for each composition separately.

The results suggest that the perception of keyboard expertise may be a predictor for the respective levels of agreement between groups. This is illustrated by the fact that the experts produced higher levels of statistically significant correlation coefficients to compositions played by pupils with limited experience of playing the keyboard. Conversely, novices produced higher levels of statistically significant correlation

coefficients to compositions played by pupils with experience of playing the keyboard.

The perception of style and structure may be a predictor for the respective levels of agreement between groups. Both experts and novices applied the rating of the constructs more consistently to composition 4 and 6 which had a distinctive structure and used the constructs in a similar way to composition 9 which was the most vernacular composition. Whilst it might have been expected that the experts would produce higher levels of agreement in response to the 'classical' style compositions, which may be indicative of their classical music expertise, this was not the case. In fact the reverse trend emerged in the results to show that the novices produced the highest levels of agreement to 'classical' compositions. The research acknowledges that the results which draw conclusions regarding responses to specific musical characteristics are tentative given the small number of compositions employed. This could be an area for future research.

When style - classical or vernacular, was not an obvious characteristic of the music, the rating scales were applied in different ways by experts and novices. One explanation for this might indicate different listening strategies by both experts and novice groups relating to differing aesthetic preferences and differing levels of arousal. **Memorability** may be a predictor for the respective levels of agreement for both groups. This may be linked to the qualities within each composition which make it easier to remember. It may also be accounted for by the extent to which experts and novices store and recall the musical information (Adelson, 1981). Constructs which produced higher levels of statistically significant correlation coefficients for the experts were whether the piece sounded **finished** and whether it was **original**. This might be accounted for by the fact that training may have made the experts more sensitive to technical devices signalling closure. Training may also have enabled the experts to compare compositions with existing models.

The fact that novices produced higher levels of statistically significant correlation coefficients to compositions which were played by more experienced keyboard players is also reflected in the higher levels of statistically significant correlation coefficients relating to the construct **technically skilful**.

Given the nature of the results in Tables 6.2.1 and 6.2.2 the key results suggest that both experts and novices agree on the ratings of the compositions irrespective of their use of the rating scales to the level of 3:1 (33%). Their agreement in the use of the rating scales was much lower (15%).

6.3 : Study 3 :   To Investigate whether Experts used the Rating Scale in Similar or Different Ways Across all 10 Compositions.

The design, construct inventory, test material, participants and procedure were the same as Study 1 and 2 described in section 6.1 above.

Analysis

This study differs from the previous one in that the analysis tests for the significant levels of agreement for the use of the 14 constructs in relation to the compositions as a whole as opposed to Study 6.2 which tested for each composition separately. Here the correlation coefficients were determined by calculating the agreement between each expert on the use of each of the 14 constructs for the 10 compositions. For experts this gave $(36 \times 35) \div 2 = 630$ correlations for each construct. The proportion which reached significance ($p<0.05$ - $p<0.001$) level is shown in Table 6.3.1. A similar procedure was adopted for novices giving (26 x

214

25) ÷ 2 = 325 correlations for each construct. The proportion which reached

significance (p<0.05 - p<0.001) level is shown in Table 6.3.2

Results

Table 6.3.1 : Study 3
*Number of statistically significant coefficients for constructs amongst experts
presented in order of agreement and as a percentage of the
total number of possible significances.*

	Constructs		Order of agreement	Expressed as % of total
	-	+		
1	not rhythmic	rhythmic	146	23%
2	dull	lively	142	22.5%
10	not tuneful	tuneful	140	22%
4	limited range	wide ranging	139	22%
5	unfamiliar	familiar	123	19.5%
9	unoriginal	original	104	17%
11	simple	complex	102	16%
3	unstructured	structured	100	16%
7	not atmospheric	atmospheric	97	15%
14	not appealing	appealing	94	15%
6	not memorable	memorable	87	14%
13	technically unskilful	technically skilful	77	12%
12	unfinished	finished	58	9%
8	disjointed	flowing	57	9%

For the *experts* the total number of possible incidences of significance for each

construct matrix was 630. The range of agreement is from 9-23 %. Although there

were incidences of significance recorded amongst the correlation coefficients for

each construct, the results suggest a relatively low level of agreement in their use of

the constructs over all.

Table 6.3.2 :   Study 3
Number of statistically significant coefficients for constructs amongst
novices presented in order of agreement and as a percentage of the
total number of possible significances.

	Constructs		Incidence of	Expressed
	-	+	Significance	as % of total
2	dull	lively	108	33%
5	unfamiliar	familiar	102	31%
7	not atmospheric	atmospheric	96	30%
8	disjointed	flowing	80	30%
14	not appealing	appealing	77	24%
6	not memorable	memorable	55	17%
10	not tuneful	tuneful	49	15%
9	unoriginal	original	47	14%
4	limited range	wide ranging	45	14%
3	unstructured	structured	44	14%
11	simple	complex	44	14%
1	not rhythmic	rhythmic	37	11%
13	technically unskilful	technically skilful	32	10%
12	unfinished	finished	25	8%

For the novices the total number of possible incidences of significance for each

construct matrix was 325. In comparison with the experts, the novices range of

agreement is greater and higher at 8-33%. In other words this shows there was a

greater level of agreement in the way the novices applied the constructs when

judging the 10 compositions. The number of statistically significant coefficients

show that there was more agreement on the use of some constructs than others.

Discussion

One of the aims of the study was to find out if both experts and novices agreed in

their respective use of the each of the 14 constructs. As Tables 6.3.1 and 6.3.2

show, incidences of statistical significance occurred amongst the correlation

coefficients for all the constructs in both groups. However, levels of agreement

differed both between constructs and between participants groups. The five *highest* levels of agreement amongst the experts related to their perception **of rhythm, liveliness, tunefulness, the range of the notes used** and the **familiarity** of the music. The *least* sense of agreement amongst the experts related to the perception of **flow** and sense of being **finished** (Table 6.3.1). The five *highest* levels of agreement for novices showed some similarities and some differences to the experts. The qualities of **liveliness** and **familiarity** were also ranked in the top five by the novices. However the different qualities of **atmosphere, flow** and whether the piece is **appealing** also showed *higher* levels of agreement amongst the novices. The qualities which were rated with *least* agreement amongst the novices were whether the piece sounds **finished** and whether it sounds **technically skilful** (Table 6.3.2).

When expressed as a percentage of the total number of statistically significant correlation coefficients for each group respectively, the results show that the novices achieved a higher percentage of agreement than the experts in their application of the rating scales in which they most agree. In other words novices come to a greater agreement through their use of the construct inventory. One possible explanation for this relates to the literature on expertise and problem solving strategies (cited in Chapter 2). It would appear that the novices' higher level of agreement when using the rating scales may be attributed to their method of approaching the task. This corroborates the theory of Jeffries et al. (1981) which suggested that in approaching a task novices will pick out individual features. This is shown in their use of the construct inventory.

The results of this study suggest that experts reached a lower level of common agreement in their use of the constructs. This contrasts with the results of Study 6.2 which showed that the experts came to a higher level of agreement in their judgement of the compositions. One explanation for this anomaly can be found in

the work of Myles-Worsley et al. (1988) who showed that experts had internalised their recognition procedures. This may account for the fact that their successive use of the rating scale was more differentiated and in less agreement than the novices (Jeffries et al., 1981).

The seeming anomaly between the results for the experts in Study 6.2 which showed a high level of agreement in the use of the construct finished/unfinished and a lower level of agreement in 6.3.1 can be accounted by the fact that in Study 6.2 the analysis measured the effect for construct, composition by composition. The way the results were calculated in Study 3 suggests that this construct was applied with a lower level of agreement in relation to the compositions as a whole.

Summary

- experts achieved a higher level of agreement in judging the compositions;

- novices reached a higher level of agreement in their respective use of the construct inventory;

- there were differences in the number of statistically significant correlation coefficients for the constructs indicating that experts and novices used the rating scales differently;

- when the compositions showed a greater degree of predictability both experts and novices showed a higher level of agreement in their respective uses of the rating scale;

- when the compositions did not show an obvious sense of style the levels of agreement showed different patterns of statistical significance between experts and novices;

- across 10 compositions separately the highest level of agreement by both experts and novices was on the construct **memorability**;

- across 14 constructs the highest level of agreement for both experts and novices was for **liveliness.**

Experts

- expertise may not necessarily be a predictor of the ability to rate compositions in a similar way;

- experts produced marginally less agreement using the construct inventory than the novices;

- for each composition considered separately experts had a higher level of agreement;

- for each composition considered separately experts produced a greater degree of statistical significance on the use of the constructs of **originality** and whether a composition sounds **finished**;

- for each of the constructs considered separately experts produced a greater degree of agreement in their use of the constructs of **rhythm, liveliness,** the **range of notes** used and **tunefulness**;

- experts produced a high degree of agreement in their use of constructs to compositions played by non-pianists.

Novices

- novices reached marginally higher levels of agreement for each composition considered separately;

- for each composition considered separately novices produced a greater degree of statistical significance on the use of the constructs **structured, familiarity,** and **technically skilful**;

- novices showed a higher level of agreement than the experts in their use of the construct inventory;

- novices produced a high degree of agreement in their use of constructs to compositions in 'classical' and vernacular styles ;

- for each of the constructs considered separately novices produced a greater degree of agreement in their use of the constructs of **atmosphere, flow** and whether the piece is **appealing**;

- novices showed a higher percentage of agreement than the experts in their application of the rating scales in which they most agree.

In the course of this chapter I have examined the results of the quantitative analysis of the teachers' perceptions of pupils' compositions in the light of general theories of expertise. The significant results suggest that there are differences between the levels of agreement in the use of the rating scale for experts and novices (Studies 6.2 and Studies 6.3). In the respective discussions above I have suggested that some of these differences might relate to how novices and experts differ in the way that information is stored and recalled (Adelson, 1981) and how they approach the task (Jeffries et al.). The results of Study 6.3 suggest that when the levels of agreement for significant correlation coefficients were interrelated for each group separately, the novice group showed a higher percentage of agreement than the experts. This may be indicative of the novices' greater reliance on the rating scale to make judgements about the pieces. Conversely, the fact that the experts used the rating scale with less agreement suggests that training might not be a predictor of consistent judgement. It might also suggest that the experts' use of the rating scale was more differentiated on each construct hence producing less less agreement.

The findings also show that novices had a higher level of agreement on global constructs such as, **flow** and whether the composition was **appealing,** whilst the experts had a higher level of agreement on more analytic constructs such as the **range of notes , originality** and whether the piece sounded **finished.** This corroborates the findings of Hargreaves and Colman (1981), Pollard-Gott (1983), Gromko (1993) and Waterman (1996). The next chapter adopts a qualitative analysis of the teachers' same responses.

CHAPTER 7

RESULTS OF THE MAIN STUDY

PART II : TEACHERS' PERCEPTIONS OF PUPILS' COMPOSITIONS :

QUALITATIVE ANALYSIS

Category Analysis

In the procedure described in Chapter 3, student teachers with musical training
(experts) and student teachers without musical training (novices) listened to two sets
of three compositions previously collected in Part 1 of the main research (Audio
Appendix 1). All participants were asked to compare why two were similar and
why one was different, and to continue to make successive comparisons on a given
proforma (see Appendix 4). The reasons given for their choice showed how the
listeners perceived the music through the constructs which they selected. For the
purposes of this part of the analysis, the constructs were mapped into the five
categories described in Part I as Musical Elements, Style, Mood, Evaluation of
Composition and Evaluation of Performance.

The results showed that both experts and novices produced constructs in all five
categories. Further analysis shows that they produced different numbers of
constructs across the categories. This is shown in Table 7.1.

Table 7.1
Total Number of Constructs across categories for Experts and Novices
expressed as a % of the total number of constructs for each group separately.

Categories	Novices	Experts
Musical Elements	57 [43%]	83 [51%]
Style	11 [8%]	11 [7%]
Mood	17 [13%]	15 [9%]
Evaluation of Composition	44 [33%]	51 [31%]
Evaluation of Performance	4 [3%]	4 [2%]
Total	133	164

For the novices, the rank order of constructs across the categories is: Musical Elements, Evaluation of Composition, Mood, Style, and Evaluation of Performance. For experts the pattern is the same. However, the distribution between the categories shows a different pattern. For example, the experts produced 8% more constructs than the novices in the category of **Musical Elements**. This might be explained by the experts more analytical style of perception in respect of their musical training. Whilst there is less difference (2%) between the number of constructs produced in the category of **Evaluation of Composition**, the experts produce more overall. The pattern is reversed in the categories of **Style** (where the novices produced 1% more than the experts) and **Mood** (where the novices produced 4% more than the experts). The novices produced marginally (1%) more responses in the **Evaluation of Performance** category.

Whilst statistical measures could be applied to ascertain the relative significance of these differences (which could be an area for future investigation), the purpose of this qualitative analysis was to examine the types of construct and the language used within each category by both groups.

The preliminary analysis of constructs showed that within each category both experts and novices had constructs in common. However, these were distributed differently by both groups. In addition both experts and novices also produced additional constructs across some of the categories. I shall now consider each category in turn.

Musical Elements

For the purposes of analysis this category has been divided into the further 7 sub-categories which correspond to the musical elements within the Music National Curriculum (1995) and also the framework for the qualitative analysis in Part I. I shall focus on each in turn.

Table 7.2 shows the constructs used within the category of Musical Elements/pitch which were common to both the experts and novices. It also shows the percentage in relation to the total number of pitch constructs within the subcategory elicited by both groups respectively. For the experts the total number of pitch constructs was calculated by adding the subtotal number of common pitch constructs given by experts in Table 7.2 (91) with the subtotal of additional pitch constructs given in Table 7.3 (9) giving a total of 100 pitch constructs. The same procedure was followed for novices resulting in a total of 30 + 4 = 34 pitch constructs. In subsequent tables the percentage is calculated in same way.

Table 7.2
Common Constructs used by Experts and Novices:
Musical Elements / pitch

Category	Common Constructs	Experts	Novices
1: Musical Elements Pitch	scale major scale bass line wide range of keyboard wide range of notes larger intervals ascends arpeggios	17 [17%] 3 [3%] 24 [24%] 1 [1%] 10 [10%] 9 [9%] 23 [23%] 4 [4%]	11[32%] 1 [2%] 2 [5%] 1 [2%] 1 [2%] 1 [2%] 12[35%] 1 [2%]
Subtotal		91	30
Total		100	34

The results show that experts construed pitch most in terms of bass line, ascending, scale recognition, a wide range of notes and the intervals used within the pitch contour. In a similar way, although to a lesser degree, the novices also used the constructs ascending and scale recognition the most. The main differences lie in the

way the experts identified bass features and their use of technical language e.g. major scale, arpeggios, intervals. The constructs elicited by the experts also show more awareness of the intervallic pitch relationships within the melodic contour.

Table 7.3 shows the additional constructs used by experts and novices respectively.

Table 7.3
Constructs used by Experts and Novices separately:
Musical Elements / pitch

Category	Experts	Novices
1: Musical Elements Pitch	pitch in octaves octave higher rising /descending 3rds tones / semitones chromatic scale dissonance bitonal outside bounds of diatonic	minor key no sharps or flats discordant cumulates in pitch
Subtotal	9	4

The experts' construct system is further differentiated in their recognition of intervals ranging from semitones, to intervals of a third and the octave as well as their recognition of the chromatic scale. Pitch recognition is also placed within their sense of tonality. The novices' additional constructs pick out some similarities e.g. no sharps or flats. This equates with the experts' recognition of chromaticism, but it is described by the novices in technical language. The perception that the music is discordant indicates some tonal schema within pitch perception for the novices. Novices also have some knowledge of pitch terms of the minor key. The phrase 'cumulates in pitch', which the novices use, is another way of describing pitch gradation.

Duration

Table 7.4 shows the constructs used within the category of Musical Elements /
duration which were common to both the experts and novices. It also shows the
percentage distribution within both groups.

Table 7.4
Common Constructs used by Experts and Novices:
Musical Elements / duration

Category	Common Constructs	Experts	Novices
1: Musical Elements Duration	rhythm defined rhythm different note values no time signature regular beat longer / shorter strong sense of pulse	12 [35%] 1 [2%] 3 [9%] 3 [9%] 6 [18%] 2 [6%] 3 [9%]	6 [40%] 1 [6%] 1 [6%] 1 [6%] 2 [13%] 1 [6%] 2 [13%]
Subtotal		30	14
Total		34	15

The results show that the experts and novices were most likely to recognise rhythm
in their perception of duration. Whether the music had a regular beat was the next
dominant construct, particularly for the experts, and to a lesser degree by the
novices. There is some sense that the length of the piece, its rhythmic definition and
different note values are also features of both experts' and novices' constructs. The
perception of metre is expressed in terms of 'time signature'

Table 7.5 shows the additional constructs used by experts and novices respectively.

Table 7.5
Constructs used by Experts and Novices separately:
Musical Elements / duration

Category	Experts	Novices
1: Musical Elements Duration	offbeat started on the off beat syncopation rhythmic direction	staccato
Total	4	1

Again the experts further differentiate within Musical Elements / duration in terms of rhythmic stress and this is described in terms of both 'off-beat' and the technical word 'syncopation'. The experts perceive the rhythmic sense of a piece in terms of whether it has 'rhythmic direction'. The additional construct 'staccato', used by the novices refers to the articulation of the notes and uses a technical word. This suggests that the novice group might have acquired some technical language and understanding of the term.

Dynamics

Table 7.6 shows the constructs used within the category of Musical Elements / dynamics which were common to both the experts and novices. It also shows the percentage distribution for each group.

Table 7.6
Common Constructs used by Experts and Novices:
Musical Elements / dynamics

Category	Common Constructs	Experts	Novices
1: Musical Elements Dynamics	dynamics silence as an integral part	7 [78%] 2 [22%]	4 [44%] 3 [33%]
Subtotal		9	7
Total		9	9

There are fewer common constructs in this category and this might be accounted for by the fact the compositions were composed on electronic keyboards where the volume was controlled within the sound bank itself. Both experts and the novices use the word 'dynamic'. Both experts and novices make reference to silence as a dimension of their perception, and this construct is used marginally more by the novices.

Table 7.7 shows the additional constructs used by experts and novices respectively.

Table 7.7
Constructs used by Experts and Novices separately:
Musical Elements / dynamics

Category	Experts	Novices
1: Musical Elements Dynamics	-	loud /soft [50%] fade out [50%]
Subtotal	0	2

The results show that it is the novices who produce more constructs within this sub-category. They show a bi-polar perception of the music in terms of loud and soft and also differentiate their perception using the words 'fade out' to describe gradations of volume.

Tempo

Table 7.8 shows the constructs used within the category of Musical Elements / tempo which were common to both the experts and novices. It also shows the percentage distribution for each group.

Table 7.8
Common Constructs used by Experts and Novices:
Musical Elements / tempo

Category	Common Constructs	Experts	Novices
1: Musical Elements Tempo	faster rhythm gets slower at the end	4 [50%] 4 [50%]	21 [87%] 3 [13%]
Total		8	24

The results are similar within this sub-category to Musical Elements / dynamics, as there are few common constructs elicited by both experts and novices. However, what is particularly distinctive, is how much more the novices use the construct 'faster'. This might suggest that this is a dominant construct used by novices. No additional constructs were used by both the experts and novices.

Timbre

Table 7.9 shows the constructs used within the category of Musical Elements / timbre which were common to both the experts and novices. It also shows the percentage distribution for each group.

Table 7.9
Common Constructs used by Experts and Novices:
Musical Elements / timbre

Category	Common Constructs	Experts	Novices
1: Musical Elements Timbre	use of electronic keyboard echo sound experimental sound uses a single sound vibrato	8 [24%] 4 [12%] 16 [48%] 3 [9%] 1 [3%]	14 [38%] 5 [13%] 12 [3%] 1 [3%] 1 [3%]
Subtotal		32	33
Total		33	36

The results show that both experts and novices were sensitive to the use of sounds but in different ways. For example, many more novices used the constructs 'use of electronic keyboard' than the experts. This could be described as a global perception which focuses primarily on the sound source. This might suggest that this was a dominant feature of perception which would be expected from the novice group. Both groups, particularly the experts, were also particularly sensitive to the tunes which used an unusual or experimental sound. The novices were marginally more sensitive in their perception of the echo sound. It appears that the experts used the common constructs in this sub-category more than the other sub-categories of pitch, duration, tempo and dynamics.

Table 7.10 shows the additional constructs used by experts and novices respectively.

Table 7.10
Constructs used by Experts and Novices separately:
Musical Elements / timbre

Category	Experts	Novices
1: Musical Elements Timbre	orchestral sounds	round throaty sound swirl sound gurgling mixture of sounds
Subtotal	1	3

The results show that the additional constructs which the experts and the novices use show a different use of language. For example, the experts construe the sound in terms of recognition of orchestral instruments. This can be accounted for by their respective musical training. However, the novices use metaphorical language to describe the qualities of the sounds. Whilst they may be more general, they certainly give a vivid description of the types of sounds used. The fact that the novices produce marginally more additional constructs in this sub-category might be worth acknowledging. It may suggest that novices may be more sensitive to this quality in the music or find it easier to describe in words.

Texture

Table 7.11 shows the constructs used within the category of Musical Elements / texture which were common to both the experts and novices. It also shows the percentage distribution for each group.

Table 7.11
Common Constructs used by Experts and Novices:
Musical Elements / texture

Category	Common Constructs	Experts	Novices
1: Musical Elements Texture	single top line layers of instruments chords harmony different musical parts trill	18 [22%] 8 [10%] 20 [25%] 11 [14%] 3 [4%] 13 [16%]	7 [28%] 5 [20%] 3 [12%] 2 [4%] 4 [16%] 1 [4%]
Subtotal		73	22
Total		81	25

As Table 7.11 shows, both experts and novices produced constructs which referred to textural features for example, top line, different parts and chords. The percentage of constructs shows that single top line, layers of instruments and different musical parts seemed to be more accessible for the novices whilst chords, harmony and trills were more a feature for experts. This suggests that for the novices these aspects were either more difficult to perceive or express in technical terms.

Table 7.12 shows the additional constructs used by experts and novices respectively.

Table 7. 12
Constructs used by Experts and Novices separately:
Musical Elements / texture

Category	Experts	Novices
1: Musical Elements Texture	low texture polyphonic one part/two parts melody and accompaniment percussion accompanying different levels gradually all came in build up of parts	duet background beat range of collective notes
Subtotal	8	3

Table 7.12 also shows that it is within this sub-category that the experts have a more differentiated construct system. They apply technical terms such as polyphony and also show an awareness of how the texture is built up. The novices similarly differentiate between the accompaniment which is construed as in the background, and more than one part which is construed as 'duet', although technically speaking this was not the case.

Structure

Table 7.13 shows the constructs used within the category of Musical Elements / structure which were common to both the experts and novices. It also shows the percentage distribution for each group.

Table 7.13
Common Constructs used by Experts and Novices:
Musical Elements / structure

Category	Common Constructs	Experts	Novices
1: Musical Elements Structure	phrase pattern notes repeating exact repetition repeating one idea repeating a shape variety of ideas variations on a theme 2 melodies melody with direction no tonal centre clear harmonic progression drone pedal beginning, middle, end	3 [2%] 7 [6%] 8 [6%] 3 [2%] 29 [23%] 3 [2%] 2 [2%] 3 [2%] 6 [5%] 5 [4%] 7 [6%] 4 [3%] 14 [11%] 12 [10%] 1 [8%]	2 [4%] 7 [14%] 4 [8%] 1 [2%] 14 [29%] 4 [8%] 1 [2%] 2 [4%] 2 [%] 1 [2%] 2 [4%] 2 [4%] 1 [2%] 3 [2%] 2 [4%]
Subtotal		107	48
Total		124	48

The results show that both experts and novices demonstrate a perception of structure in terms of phrase, pattern, repetition and variations. However, the total number of constructs suggests that experts may be more familiar with these terms and their listening recognition. This may reflect their analytical musical training and perhaps their expectation of the listening task. Whilst the technical devices such as drone and pedal are also a feature of both construct systems these are used far more by the experts, which again is indicative of their technical knowledge. The exception is the novices' greater incidence of the construct 'repeating a shape'. Although it is used only used 6% more by the novices it is another example to confirm the view that novices listen to music in a more holistic way which is also reflected in the language they use.

Table 7.14 shows the additional constructs used by experts and novices

respectively.

Table 7.14
Constructs used by Experts and Novices separately:
Musical Elements / structure

Category	Experts	Novices
1: Musical Elements Structure	familiar structure contrast 8 bar repeated pattern square repetitions movement in melody implied harmonies harmonic development motif imitation riff ostinato sequence no real start new idea to conclude finished on root of tonic sense of closure perfect cadence	-
Subtotal	17	0

There are far more additional constructs given by the experts to suggest that they

further differentiate their constructs within this sub-category. This reinforces the

ideas that experts perceive the music in a more structural and analytical way. It is in

this sub-category that most technical specialist language is used.

Style

Table 7.15 shows the constructs used within the category of Style which were

common to both the experts and novices. It also shows the percentage distribution

by both groups.

Table 7.15
Common Constructs used by Experts and Novices:
Style

Category	Common Constructs	Experts	Novices
2: Style	pop tune well known tune familiar melody copy of a chart song classical jazzy	3 [12%] 4 [15%] 7 [27%] 4 [15%] 1 [4%] 1 [4%]	6 [26%] 2 [9%] 2 [9%] 3 [12%] 4 [17%] 1 [4%]
Subtotal		20	18
Total		26	23

The results show that the novices construed the music more in terms of whether it was popular or classical. This shows a general global categorisation of style which would be expected by the novices. Novices apply more constructs related to pop music which may reflect their listening contexts and preferences.

Table 7.16 shows the additional constructs used by experts and novices respectively.

Table 7.16
Constructs used by Experts and Novices separately:
Style

Category	Experts	Novices
2: Style	influenced by a particular style influenced by Bach based on a baroque fugue known melodic fragment cartoon like slapstick comedy	TV theme church music sounds religious different style funky
Subtotal	6	5

This shows that the experts applied additional constructs which refer to their specialist music knowledge e.g. influenced by a specific composer, or a particular composition style. They also relate style to vernacular forms e.g. cartoons. The language 'known melodic fragment' construes style in a specialist language and shows an analytical focus which is again characteristic of musical training. The

constructs which the novices use are less differentiated and rely more on the context

and association, and general style descriptors e.g. 'funky'. In this way the construct

systems conform to the expectations for experts and novices described above.

Mood

Table 7.17 shows the constructs used within the category of Mood which were

common to both the experts and novices. It also shows the percentage distribution

by each group.

Table 7.17
Common Constructs used by Experts and Novices:
Mood

Category	Common Constructs	Experts	Novices
3: Mood	atmospheric corny flowing dark joke	1 [7%] 1 [7%] 1 [7%] 1 [7%] 1 [7%]	4 [16%] 1 [4%] 3 [13%] 1 [4%] 1 [4%]
Subtotal		5	10
Total		15	24

Both experts and novices produce few common constructs in this category,

although the significant difference is that some are used more by the novices. The

novices perceive the music more in terms of atmosphere and a sense of flow which

are both holistic, global and affective constructs.

Table 7. 18 shows the additional constructs used by experts and novices

respectively.

Table 7.18
Constructs used by Experts and Novices separately:
Mood

Category	Experts	Novices
3: Mood	hammering spooky ending forceful comic agitated free evocative timid bold perky	sombre up tempo feel only one I can remember heavy jagged spiky like a sad cart horse plodding on a farm has emotion aggressive gentle solemn grand happy variety in mood
Subtotal	10	14

Although both groups produce more constructs in this category, Table 7.18 shows that the novices produce more constructs than the experts. This follows the same trend, i.e. that a sensitivity to mood is a significant feature of the novices' mode of perception. It is interesting that the novices produce a more differentiated construct, 'variety of mood', which suggests that the construct 'more than one mood' was used to distinguish qualities in the music. The novices' constructs are also characterised by a range of expressive vocabulary including metaphor.

Evaluation of Composition

Table 7.19 shows the constructs used within the category of Evaluation of Composition which were common to both the experts and novices. It also shows the percentage distribution by both groups.

Table 7.19
Common Constructs used by Experts and Novices:
Evaluation of Composition

Category	Common Constructs	Experts	Novices
4: Evaluation of Composition	ending not considered properly	1 [1%]	1 [2%]
	original	15 [18%]	3 [5%]
	predictable	2 [2%]	3 [5%]
	coherent	2 [2%]	1 [2%]
	musically developed	6 [7%]	1 [2%]
	didn't end where you expected	1 [1%]	1 [2%]
	most developed	1 [1%]	1 [2%]
	more of a tune	6 [7%]	4 [7%]
	simple	3 [4%]	4 [7%]
	amazing rhythm	1 [1%]	1 [2%]
	convincing structure	4 [5%]	1 [2%]
	different	1 [1%]	1 [2%]
	better understanding of composition	1 [1%]	2 [4%]
	doesn't rely much on previous experience	1 [1%]	1 [2%]
	not a piece of music	1 [1%]	1 [2%]
	irregular	1 [1%]	1 [2%]
	obscure	1 [1%]	1 [2%]
	improvisation	3 [4%]	2 [4%]
Subtotal		51	30
Total		82	55

Whilst both experts and novices produced common constructs in this category, over all the experts produced 30 more than the novices. The most striking difference is the way in which the experts used the construct originality. This dominates responses in this category and indicates the extent to which experts perceive and possibly value this characteristic in the music. Similarly, their evaluations reflect their musical training in the way they expect the composition to be organised. This is described in terms of development and whether it has a convincing structure. The novices do not use the construct of originality as much as the novices which might suggest that this either is not such a concern for them, or that they are less familiar with conventional idioms to know the difference. Improvisation is also used as a construct by both experts and novices which suggests that both groups use this as a construct to discriminate between the compositions.

Table 7.20 shows the additional constructs used by experts and novices

respectively.

Table 7.20
Constructs used by Experts and Novices separately:
Evaluation of Composition

Category	Experts	Novices

4: Evaluation of Composition	less sense of form
	lacks direction
	less developed structure
	stuck in initial idea
	not as imaginative
	cliché undermining piece
	conventional more mature
	   construction
	balance
	interesting structure
	more abstract
	more sophisticated
	less restricted
	with movement
	staid
	recognisable starting point
	tried to disguise a well known
	   tune
	plagiarised
	very effective pattern
	rhythmically exciting
	rhythmic drive
	inappropriate ending
	no attempt to signal ending
	abrupt ending
	attempt to climax towards the end
	sense of finality
	interesting ending
	new ideas at end
	didn't end conventionally
	creative melody line
	lyrical
	implied harmonies
		basic instrumentation
		used the instrument
		set piece
		based on something heard
		tells a story
		to go with a poem
		no relationship between sections
		more complete
		square composition
		rounded
		more of a whole sound
		more continual flowing
		fewer separate notes
		rose to a peak
		personalising tune at end
		weird ending
		odd notes at end
		home note ends on a seventh
		needs to continue
		pause for effect
		variety in intensity
		planned
		not sure what doing arrangement
		evokes a more musical
		experience

Subtotal	31	25

The results show that both the experts and novices create a range of different ways

of evaluating the compositions. It is in this category that the language of aesthetic

value is more identifiable. For the experts the construct system shows an ability to

reflect and value the sense of structure in the composition. Generally, the expert is

looking for a good sense of structure. The language used refers to form, initial

ideas, construction and balance. Many of the constructs which the experts also use

refer to the way in which the piece ends. Within the experts' construct system there

seems an aesthetic criterion which requires a composition to end appropriately. Some constructs describe the different types of ending and the sense of finality. Others construe features which suggest closure e.g. devices which 'signal' an ending or which bring the composition to a sense of climax. Experts also demonstrate their technical knowledge in the constructs which describe lyrical qualities and implied harmony. The experts appear to apply a more analytical construct system. Another way in which the sense of a composition is construed for the experts is through movement. The language describes direction, steadiness and drive. Experts continue to recognise and devalue compositions which are not original, which they describe in terms of plagiarism and cliché. The dimensions of creativity and imagination also feature within their construct system. There also seems to be an understanding that some compositions can be more mature than others, and this is described in terms of sophistication and abstraction.

The results also show that the novices differ in their way of evaluating compositions. Their constructs are based on different aesthetic dimensions. For example, instrumentation and memorability are key features of the construct system. Others show similarities in the types of perception but differ in the degrees of differentation and the language used. Like the experts they also show a sense of the structure of the music but this is described using language which depicts the narrative of the composition e.g. 'it tells a story'. The novices also produced perceptions referring to whether the compositions were 'planned' or whether they 'knew what they were doing'. This shows some ability to reflect on the composition process. Novices, like experts, also show a sensitivity to conventions of closure but this is expressed using different language e.g. 'odd notes at the end', the 'home note'. The sense of movement is described in terms of rising to a peak, continuation and flow. What is most distinctive is how the novices show their perception of the music and describe it in terms of completeness as well as in terms of its shape e.g. rounded, square. This is another example of the novices' construct

system which uses global criteria to form judgements. It is also a synaesthetic

verbal expression - in other words, the music seems to have been perceived in

relation to another sense. One striking construct i.e. 'whether the music evokes a

musical experience', produced by the novices, shows this sensitivity as an aesthetic

criterion.

Evaluation of Performance

Table 7.21 shows the constructs used within the category of Evaluation of

Performance which were common to both the experts and novices. It also shows

the percentage distribution by both groups.

Table 7.21
Common Constructs used by Experts and Novices:
Evaluation of Performance

Category	Common Constructs	Experts	Novices
5: Evaluation of Performance	difficulties keeping to rhythm rhythmic inaccuracies uses two hands	1 [14%] 2 [28%] 4 [57%]	2 [33.3%] 2 [33.3%] 2 [33.3%]
Total		7	6

The results show that the experts and novices produced a similar number of

constructs in the category of Evaluation of Performance. Experts were more able to

recognise whether the compositions were played using two hands. This can be

accounted for by their playing experience. Both experts and novices are sensitive to

rhythmic inaccuracies. No separate constructs were given by the experts and

novices separately within this category.

Discussion

The results show similarities and differences in the way that pupils' compositions

are perceived by experts and novices. Similarities occur in the types of construct

used. Differences occur in their percentage distributions, the type of language used,

the relative degrees of differentiation within constructs and the different type of

constructs used by experts and novices. Such construct profiles give both an

illustration of the different listening strategies which are applied when experts and novices listen to pupils' compositions as well as an indication of the aesthetic preferences of both groups.

For example, in the sub-categories of Musical Elements, both experts and novices use the actual terms *pitch, dynamics and structure*. The term *texture* is used only by experts and the terms *duration, tempo and timbre* are not used by either groups. On the one hand this may reflect the simple vocabulary acquisition by the participants in the study, on the other hand, it shows the 'real world' application of the terms which define the framework of the Music National Curriculum. The results suggest that the terms duration, tempo and timbre may be problematic.

Within the sub-categories some types of perception feature more than others. For example, there are fewer constructs for both groups in the categories of dynamics and tempo. To a certain extent this might be accounted for by the characteristics of the listening material and the sound source used, which made these qualities less discernible.

Within the sub-categories some types of perception are more characteristic of one group than the other. For example, the sub-categories of texture and structure dominate the experts' profile. In so far that the sub-categories of texture and especially structure show analytical strategies, then the results corroborate previous findings in the literature (Smith, 1987; Dowling, 1982; Gromko, 1993 and Hargreaves, 1981) illustrating that experts perceive music in a more analytical way. This can be attributed both to the application of their specialist knowledge, training and their expectations of the task.

Novices construe the music more in terms of timbre. This attention to the sound quality of the music can be described as a surface quality and corroborates the work

of Mayer (1992), which shows that novices' categorisation of information is often

triggered by surface properties and consequently produces a more holistic style of

perception.

The findings show that in the sub-category of pitch, the novices used the construct

'ascending/descending' more than any others. In the sub-category tempo, the

novices used the construct 'faster/slower' far more than the experts and in the sub-

category of dynamics, the novices produced additional constructs which referred to

'loud/soft'. This corroborates Gromko's description (1993) of listening perception

in terms of primary and secondary parameters and the way in which novices

perceive secondary parameters (loud/ soft, slow fast, high/ low) before primary

parameters (theme, harmony and rhythm). Conversely, the fact that the results

show a dominance of constructs which refer to structural properties in the music,

corroborates the view that the experts focus on primary parameters. In other words,

the experts' constructs within the structure category illustrate an understanding of

the structural function of harmony for example, which Gromko would categorise as

a primary perception. This is not to say that the experts do not perceive the music

using the global secondary parameters (loud/ soft, slow fast, high/ low etc.) but

rather, that these responses may be tacit as experts 'search' for a more differentiated

schema. This corroborates both Jeffries et al.'s (1981) theory that global perception

is an initial part of an experts strategy when problem solving, as well as

Waterman's (1996) analyses of experts' listening style.

The constructs used by the experts are more differentiated within most of the sub-

categories. For example, within the sub-category of pitch, the experts give more

constructs which demonstrate an awareness of the intervallic pitch relationships

within the melodic contour. Within the sub-category of duration the experts further

differentiate their perception of rhythm in terms of syncopation and rhythmic

direction. Within the sub-category of structure the experts differentiate their

perception in terms of the number of bars within a repeated pattern and the harmonic development. This corroborates Jeffries et al.'s (1981) finding that experts break the task into further subparts and apply an increasing systematic analytic approach to one aspect of the task.

The novices, however, show a less differentiated construct system. They may perceive some events in the music in a similar way to experts, e.g. a change in the tonality, repetition, the quality of the sound. However, some of the novices' constructs may have misappropriated technical terms e.g. 'up tempo' may refer to the speed of the beat or a general sense of the music. Novices often find their own language to describe particular qualities e.g. a gurgling mixture of sounds. This would corroborate Waterman's (1996) suggestion that whilst novices lack the appropriate means to analyse the structural properties of the music, they search for other sources of association which are unable to be articulated in musical terms. To some degree this accounts for the types of responses produced by novices which are more global in character, taking the surface properties of the music into account and devising personal expressions to describe musical events. The exception to this occurs within the sub-category of timbre where the novices produce a more differentiated construct system. Whereas the experts might gloss over this type of perception in their initial familiarisation of a task and search for more analytic constructions (Jeffries et al., 1981), the novices, in the absence of technical knowledge, focus on this dimension producing further constructs, which are verbally expressed in an imaginative, synaesthetic and metaphoric way.

Within the category of style the construct 'pattern' is replicated in a slightly different way. Whereas the experts use their specific stylistic knowledge as a way of construing the compositions, the novices use generalisations, such as popular/classical, general style descriptors and context and association. Novices produce more constructs referring to popular music. This suggests that whereas

experts apply constructs relating to style from their ability to categorise stylistic features and recognise stylistic melodic fragments, novices may construct style in terms of their experience of popular models and social situations.

The literature (Hare, 1977) sets out the case that novices might respond more in terms of mood and this can be said to be a type of global perception. This is born out in the results of my research which show, not only that the common constructs produced both by experts and novices are applied more frequently by the novices but also that the novices produce more additional constructs in this category. Within this category the novices also show a greater differentiation recognising that some compositions suggest more than one type of mood. The findings therefore corroborate Smith (1987) demonstrating that novices are more likely to demonstrate a non-syntactic listening style which is characterised by affective and emotional responses.

It is within the category of Evaluation of Composition where these differences in listening style are most discernible. To summarise, the experts use constructs which are more analytic referring to structures, form, convention, originality and show the ability to reflect on the relative sophistication of the composition. In this way they are more objective-analytic. The novices also perceive the same structural events in the music but describe them in global terms with a lesser degree of differentation. What is striking about the novices' construct system is the way their global perceptions retain a sense of the music in terms of movement and flow. In addition the novices' constructs suggest that they value the compositions for their musical appeal. The novices also describe the music using a rich metaphorical language.

Thus, in the course of this chapter the qualitative analysis can be seen to 'flesh out' the quantitative analysis of Chapter 6 and demonstrates how the positivist and constructivist models can co-exist within the same design (Robson, 1993). The results confirm differences in listening styles between teachers with specialist training and those without. This is revealed in the types, range and number of common and additional constructs produced by each group respectively. The dimensions of aesthetic appraisal as revealed by the elicited constructs corroborate Hargreaves and Colman (1981), Pollard and Gott (1983), Gromko (1993) and Waterman (1996) to show a global perceptual style for the novices and a more analytic listening style for the experts. The detail of the analysis shows how these listening styles are further differentiated for each group.

Taking chapters 6 and 7 together which investigate teachers' perceptions of pupils' compositions, it can be seen how the analysis presents the reader with two layers of results. First, the quantitative analysis a broad picture of the significant levels of agreement between experts' and novices' respective application of the repertory grid. Second the qualitative analysis gives examples of the language used within each category of perception. The following chapter considers the results as a whole in relation to the theoretical argument presented in Chapters 1 and 2.

CHAPTER 8

CONCLUSIONS

8.1 Comparison of the results of Part I : Pupils' Perceptions of Compositions and Part II : Teachers' Perceptions of Compositions

The thesis set out to investigate how pupils and teachers perceived pupils' compositions with the aim of making explicit their respective criteria of aesthetic appraisal. I shall now consider similarities and differences in the way pupils and teachers appraised the compositions by comparing the results of Part I : Pupils' Perceptions of Compositions and Part II : Teachers' Perceptions of Pupils' Compositions using the categories of analysis: Musical Elements, Style, Mood, Evaluation of Composition and Evaluation of Performance.

Musical Elements

In Part I, the results show that in Study 6: Written Responses to Peer Compositions, the category **Musical Elements** came second out of the five categories of perception. In Part II, the teachers produced the most number of constructs in this category. At this level it shows that the teachers produced more constructs which referred to the function of discrete musical elements than the children. Comparison between the sub-categories of pitch, duration, dynamics, tempo, timbre and structure reveal further issues for consideration as follows.

Pitch

The comparison shows some similarities. For example, the children's responses ranged across the Music National Curriculum **pitch** descriptors. In other words, children identified 'high and low', 'gradations of pitch' and 'recognition of scales'. These constructs were also used by both expert and novice teachers. Therefore, experts, novices and children showed evidence of responding to pitch to the identified level of Key Stage 3 within the Music National Curriculum.

However, the comparison also shows that pitch perception is more differentiated. Both the children's and the teachers' perceptions show a qualitative shift in the perception of **pitch** contour. For the children this relates to an *aesthetic* sense of the pitch contour **and** the tessitura of the melodic line. In other words, children perceive the tune in a **holistic** way and sense the aesthetic 'fit' of the notes within the melody. For some teachers, pitch recognition relates to the recognition of intervals and as such relies on **a** tonal awareness. This demonstrates a more analytic approach which is more dominant for the experts and is expressed using a more technical vocabulary. **This** corroborates the work of Dowling (1992), who found that novices were more likely to perceive melody in terms of its figural shape than experts who perceived melody in terms of intervallic pitch relationships. This also corroborates the work of **Zenatti** (1991) who found that novices were more likely to perceive pitch in terms of 'secondary parameters' (e.g. high/low) rather than in terms of a harmonic schema which he refers to as a primary parameter of perception. It also sheds light on **the** experts' listening strategy, corroborating Mayer's view (1992) that experts approach a task from givens, for example, knowing that pitches and scales are embedded within tonal systems. The novices approached the task from unknowns, for example, knowing that there are 'no sharps and flats'. Thus, novice teachers perceive pitch in a similar way to children at Key Stage 2 and 3. Although some perceive pitch in terms of tonality, they have not yet developed a corresponding technical vocabulary.

In addition, the children's responses shed further light on how pitch is described and how it is *valued*. The results show that children use movement metaphors to describe pitch relationships. They also prefer tunes which do not have extremes of pitch. At Key Stage 3, some children tolerate a greater range or tessitura of the melodic line.

Duration

The way teachers and children respond to duration shows some similarities. For example, teachers and children describe music as having a 'rhythm' or a 'beat'. Teachers describe the sense of rhythm as 'pulse' and the experts refine this in terms of a 'regular' beat. Children describe the sense of rhythm in terms of being able to 'follow it', or in terms of its 'flow'. Teachers and children recognise duration as beat, pulse and rhythm which are specified at Key Stage 1, but clearly sense it in different ways and use a different vocabulary to describe it.

The results suggest that the words 'long' and 'short', are rarely used in the perception of duration within melodic compositions. However, a construct used by experts and novices, and more by the experts, refers to 'different note values'. This shows a more analytical approach. An exception is the use of the technical term 'staccato' by one novice teacher and one child (receiving piano lessons) at Key Stage 3.

The analysis revealed that the words 'long' and 'short' were used to refer to duration more in terms of the length of the compositions. This is illustrated by types of responses demonstrating a preference for compositions which are 'not too long' or 'too short'. At Key Stage 3 another type of response emerges which shows a preference for longer tunes. One explanation for this might be that the older children can sustain their interest over a longer listening period. A degree of objectivity in the

children's responses is shown through perceptions which judge the length of a tune as appropriate for each particular composition.

The understanding of duration as 'groups of beats', which is a feature of learning for Key Stage 2, is not made explicit in these terms by either teachers or children. However, the teachers' construct 'no time signature' and one pupil's response 'it was out of time' suggest some understanding of the concept. It would appear that there is little verbal evidence of an understanding of the structural organisation of metre. The literature (Smith, 1983) leads us to an expectation that for the experts this would be the case. To a certain extent this analysis overlaps with the sub-category of structure which I refer to later in this chapter.

The results also show that there were far more responses which referred to the concept of rhythm by the older Key Stage 3 children, but that over all, their responses were far less differentiated. In other words, the children perceived rhythm globally and show more similarities with the way the novice teachers perceived this element of music.

Some of the experts referred to duration in terms of 'syncopation', which is a feature specified for learning at Key Stage 3. The technical term is used as well as phrases such as 'off-beat'. However, only one pupil at Key Stage 3 used the term 'off beat'. This is not to say that children do not recognise syncopation as a quality of the music, as many children valued the compositions which had a syncopated beat in terms of 'good beat'. This suggests that they do not have the conceptual understanding nor the language to describe it as such. To a certain extent the limited perception of duration could be due to the fact that the compositions were essentially melodic. Therefore, the responses in the research refer to the rhythmic qualities of the melodic line. Had the compositions focused on rhythm only or used a rhythmic backing then this might have been more differentiated. These results bring in to

question how the music National Curriculum defines duration, and how qualitative shifts within this parameter are defined.

Dynamics

The most striking difference in this category was that far more children used this construct as a way of perceiving the compositions than the teachers. Although the experts used the term 'dynamics', their responses showed no differentiation. One explanation for this is that the experts may have perceived this aspect of the music in their initial familiarisation of the task (Gromko, 1993) but their perception strategy was based on perceived primary parameters of the music i.e. structural properties.

The novices perceived 'loud' and 'soft' and 'levels of volume' which corroborates the view (Gromko, 1993; Zenatti, 1991) that these qualities, or secondary parameters, are characteristic of an 'untrained' ear. It would then follow that novice teachers had more in common with the way the children perceived dynamics. In this sub-category, the children shed further light on levels of perception. Not only do their responses corroborate the Music National Curriculum Key Stage descriptors for dynamics, they also show how volume is *valued* across the age range and gender. For example, sensitivity to volume seemed to be a feature of Key Stage 2 children. The results also show that girls prefer quieter music and boys louder music, which corroborates Green's (1993) research on teacher beliefs. This is an area for further research.

Tempo

Again the research evidence shows that within this sub-category the novice teachers and the children showed a greater sensitivity to tempo than the experts. This could also be accounted for in terms of Gromko's theory which differentiates between the experts' and novices' perception of primary and secondary parameters. The children's responses show levels of response which conform to the features

specified in the Music National Curriculum, i.e. 'fast and slow', 'gradations of tempo', and 'changes in tempo'. In addition, the children's responses show a more differentiated pattern of perception which relates tempo to **mood** and **structure**. Another qualitative shift demonstrates the 'appropriateness' of the tempo for a particular tune. Another facet of the results in this sub-category relates to gender, in that Key Stage 2 girls and Key Stage 3 boys produced more responses and boys preferred faster tunes. This is an area for further research.

Timbre

In a similar way to the sub-category of tempo, the levels of differentiation are more marked between the novice teachers and children. On the one hand, the evidence shows that the novices used far more of the common constructs in the timbre sub-category than in the sub-categories of pitch, duration and tempo and they also produced a greater number of additional constructs in this sub-category. The types of responses showed a recognition of the electronic keyboard and described the sounds using metaphor. These responses denote global surface properties of the music. On the other hand, the experts construed the sounds in relation to orchestral sounds and the extent to which they were experimental which reflects their music training. All these types of responses were represented by the children. In addition, the children's responses show qualitative shifts in the perception of sound which relates to **mood, depth, association** and the 'appropriateness' of the sound for the tune. There also seems to be an optimum level of perception of timbre change which affects preference.

In addition, differences occur with age and gender. Responses which refer to timbre were more a feature of Key Stage 2 children, and the girls produced more responses in this category. This is another area for further investigation. The evidence presented here shows that the Key Stage descriptors for timbre are inadequate in

describing both discriminations of timbre and also qualitative shifts in understanding.

Texture

This type of perception was a far more dominant feature of the experts' style of perception. The language used becomes increasingly specialised. Few responses were made by the children. In Part I, this seems to be because the types of compositions used in the research were essentially linear. In Part II the results show that the experts were able to differentiate this to a greater degree. Whereas the novice teachers subscribed to recognising more than one line (up to Key Stage 1) the experts described the music using terms up to Key Stage 3 to include for example, 'melody and accompaniment'. This would suggest that novice teachers and children found this element difficult both to perceive and describe. The experts used a more analytical type of response and produced a range of technical vocabulary which related texture to **structure**.

Structure

The results show that the experts demonstrate a greater technical knowledge in this sub-category and this is shown by the greater number of constructs, their more frequent use, and by the range of technical terms. Structure is also perceived by novices but in terms of the overall shape. Some responses are synaesthetic showing a crossover into visual description. Again this corroborates the technical-analytic listening style of the experts and the holistic-global listening style of the novices. The concept of repetition is considered in many different ways by the experts. For the novices the main construct is the 'repetition of one idea'. This leads to the view that structural perceptions may be related to *memory recognition*. In other words, whilst the experts listened to the compositions and showed a greater ability to 'chunk' the musical events into larger sections for structural analysis, the novices could only recognise the repetition of one idea. If this is compared to the children's

responses, fewer were able to recognise patterns in the music. This corroborates Adelson's (1981) view of memory and recall which states that experts can (a) recall more information in initial recall sessions and (b) that this information comprises chunks of information. A consideration for further research might be to include further repetitions of the test material and, as Gromko (1993) suggests, after repeated listening and further training, novices move from the perception of secondary to primary parameters which include structure.

A more figural profile of structural perception is shown by the novice teachers and children in that musical events are perceived in terms of the 'beginnings' and 'ends' before events in the 'middle'. The children's responses also show how structure and change is perceived. For example, some children show a preference for structures which do not change too much. There seems to be a greater structural awareness at Key Stage 3, which may be accounted for in part by their increasing ability to stand back from the composition and view it objectively, and in part by an increasing vocabulary with which to describe these features. My research suggests how the children's perception of structure sheds light on how this might be acquired conceptually.

Style

In Part I, the results show that in Study 6: Written Responses to Peer Compositions, the category **Style** came fourth out of the five categories of perception. This position was the same for the teachers' constructs in this category. A comparison of the respective qualitative data shows that the experts apply their specialist knowledge in two ways: first in a stylistic recognition of melodic fragments and second, by referring to stylistic devices and composers. The novices show a different pattern of construing, in that 'pop' and 'classical' are used as global descriptions and in that the perceptions rely more on context, association and general style descriptors. Again this differentiates the experts' and novices' listening

styles and shows the extent to which either the experts relied on their technical understanding, or the extent they thought this was expected of them in this context. The quantitative analysis in Part II shows that when the experts and novices listened to compositions which showed a clear sense of style, more incidences of significant correlations were recorded for the use of the construct inventory. When compositions did not show a clear sense of style, there were less incidences of significance which might suggest that both groups applied the constructs in different ways. The children's responses also shed further light on how style is perceived and *valued* in terms of their experience. The analysis revealed that whereas children's perception of style at Key Stage 2 refers mainly to received culture e.g. film, video and TV, children's perception of style at Key Stage 3 refers more to style in terms of personal experience. Although this may not be as marked as in later adolescence (Green, 1993) this pattern starts to emerge in the data presented in my research. The children's responses also show how differentiation develops from stylistic stereotypes, style similarity and preference, and the ability to qualify style in terms of specific musical features.

Mood

Both in Part I, Study 6: Written Responses to Peer Compositions, and in Part II, the results show that responses in this category of **Mood** came third in the categories of perception. A comparative analysis shows that whereas experts and novices responded to the compositions in this way, this type of perception was a more prominent feature of the novice teachers and the children. Similarities between novice teachers and children include a range of positive and negative emotions and the use of adjectives and movement metaphors which describe the atmosphere of the composition as a whole. Again the children's responses shed an insight on how mood responses are differentiated i.e. from a personal identification, to the mood quality of the tune itself, to a description of musical features which contribute to a particular mood. Both the novice teachers and children ascribed changes in the

music as changes in mood. This might be indicative of the novice teachers' and children's ability to perceive changes in the music but not to be able to describe them in musical terms. Therefore, novice children and teachers, without a specialised knowledge of music, use emotions as a way to describe their perceptions. This is another example of their global perceptual style. It might also suggest that the experts' training has conditioned them *not* to respond in emotional terms or that their expectations of the task were different from the novices (Kemp, 1997). A further explanation relates to Waterman's (1996) suggestion that whilst the music may have provided an emotional trigger for their experts' responses, this led on to a more systematic analytic mode of perception. In this way the experts' global perceptions may remain implicit in their perceptions of music, whilst novice teachers and children clearly make their feelings about the music more explicit. The results show that there was a marginal increase by the girls and this is an area for further investigation.

Evaluation of Composition

In Part I the results show that in Study 6: Written Responses to Peer Compositions, the category **Evaluation of Composition** came first out of the five categories of perception. In Part II the teachers produced the second highest number of constructs in this category. At this level, it shows that the children produced more constructs which referred to the music in terms of a subjective sense of value. This would corroborate models of aesthetic development (e.g. Parsons, 1976; Ross, 1984) which show this as a stage of development.

However, the respective qualitative analyses shed further light on this issue and comparisons between the experts, novice teachers and children show marked differences. As described in Chapter 7, the experts evaluated the compositions in an analytic way in terms of structural conventions and formal sophistication. They also valued originality and creativity. Novices also perceived the music in terms of

structure and closure but the language they used was different. A striking feature of the novice teachers' perceptions is the holistic sense of the music in terms of its 'flow', its 'shape' and 'whether it was a musical experience'. The quantitative analysis corroborates these findings showing that the experts agreed most on certain more analytical constructs i.e. rhythm, the range of notes and in terms of structural conventions e.g. whether the piece 'sounds finished' or 'tuneful'. However, the novice teachers agreed most on constructs which show a more holistic sense of the music i.e. atmosphere, flow and whether the piece is appealing.

The children's responses in this category contain characteristics of both the expert and novice teachers. In my application of the model of musical development (Hargreaves and Galton, 1996) in Chapter 6, I show how children's responses in this category move from global to analytic, from subjective to objective modes of aesthetic appraisal.

Evaluation of Performance

In both Parts these responses came lowest in the five categories of perception. This suggests that both the teachers and the children were able to separate out their perceptions between qualities within the compositions and qualities of how they were performed. Novice teachers agreed most on whether they thought the piece was 'technically skilful'. The experts produced constructs which applied keyboard knowledge. Again the children's qualitative analysis demonstrates how the perceptions of evaluation of performance become more differentiated. At one level, the children separate out preference between the compositions and the performance. At another level, they differentiate between the technical demands of the piece and the experience of the player. The quantitative analysis of the data in Part II showed that the experts produced a higher degree of agreement in their use of the rating scale to compositions played by non-pianists whilst the novices produced a higher degree of agreement in their use of the rating scale to compositions played by

pianists. This may be more attributed to the qualities presented in the compositions themselves rather than the evaluation of the performance.

From this comparative analysis of teachers' and pupils' perceptions, several key issues emerge which inform an understanding of aesthetic development in music. These are summarised as follows :

- The results show that novice teachers and children share certain aspects of their respective listening styles.

- The results corroborate findings elsewhere in the literature which show that experts perceive music in a more analytic way and novices in more global way. Further to this, my research demonstrates how this occurs within categories of perception, and in particular, in the sub-categories of pitch, duration, texture and structure within Musical Elements, Style, and Evaluation of Composition. With the exception of Style, these categories are dominated by the experts and it is where the most technical language is used. However, the research also provides evidence to suggest the place of global perception *within* the experts' listening style. This refers to the work of Pollard-Gott (1983) and Gromko (1993) and the respective perceptions of primary (theme, harmony, structure) and secondary parameters (soft/loud, fast/slow) by experts and novice teachers and children. The evidence in my research within the sub-categories of dynamics, tempo and pitch would support this theory. In addition, the novices' listening style focused on the surface timbre characteristics of the sound which could also be classed as a secondary parameter of perception.

- Dominant categories of perception for the novice teachers and children are dynamics, timbre, mood and style.

- In some categories of perception e.g. Musical Elements / duration, features of the music such as syncopation are perceived by both experts and novices. Whilst the experts and children with musical experience refer to this in technical

terms, novices' responses tend to describe the rhythmic change in different ways e.g. in terms of style, mood or an expression which values the rhythm of the music. In other words, the research shows that despite the lack of technical language, musical concepts are perceived by the novice teachers and the children.

In addition the children's responses are particularly helpful in discerning further characteristics of aesthetic perception, which are summarised as follows :

- In the category of Evaluation of Composition responses demonstrate the shift from subjective preference to objective judgements. The responses not only show the shifts of different levels of aesthetic perception but also the language which they use to describe these shifts.

- Responses which show differentiated levels of perception sometimes conform to the respective Key Stage 1-3 descriptors but sometimes show a more variegated pattern.

- Categories of perception become interconnected in different ways e.g. tempo and mood, timbre and mood, and this network of interrelationships is further differentiated within individual listening profiles.

- Qualitative shifts of perception are observed less through increasing discriminations within discrete elements, but more in terms of their structural consequence.

- Aesthetic considerations of 'appropriateness' for a particular tune were seen in the sub-categories of duration, tempo and timbre.

- Optimum levels of change and range affect preference within the sub-categories of pitch, duration (length of piece), structure and timbre.

- Some dimensions of aesthetic appraisal are more dominant at different ages e.g. structure at KS 3, timbre at KS 2, dynamics at KS 2.

- Some categories of perception show differences with age e.g. at KS 2 Style is referred to in terms of received culture whilst at KS 3 it is perceived in terms of personal experience.

- Older KS 3 children have a greater tolerance for longer pieces and a more wider ranging tessitura.

- Gender differences: girls show a preference for quieter, slower music and boys for louder, faster music. Timbre is more salient in girls' listening style.

- Individuals show distinct listening styles which differ with age, gender and musical experience.

- Individual listening styles pass through phases leading to increasing aesthetic maturity.

- Individual listening profiles show that aesthetic development need not necessarily be sequential as leaps to more advanced phases are present within some profiles.

It is recognised that these findings form the basis for further research.

8. 2   Evaluation of the Research Design

This section evaluates the research design in terms of the relationship between the quantitative and qualitative approaches used, my role as teacher/researcher and the participant groups.

The design of the thesis involved both a quantitative and a qualitative analysis of the children's and teachers' responses. In the course of the quantitative analysis of Part I : Pupils' Perceptions of Compositions and Part II : Teachers' Perceptions of Pupils' Compositions, I have shown significant differences between the way teachers and pupils perceive pupils' compositions across the categories of

perception: Musical Elements, Style, Mood, Evaluation of Composition and Evaluation of Performance, and in the teachers' use of a repertory grid. The qualitative analysis gave a more differentiated picture, and provided the opportunity to investigate responses within Musical Elements : pitch, duration, dynamics tempo, timbre, texture and structure for example. The case studies further differentiated the results at an individual level.

The relationship between the two paradigms shows how some of the quantitative results inspired further qualitative analysis e.g. particularly in the categories of Musical Elements and Evaluation of Composition. In Part II, for example, the qualitative findings which showed that novice teachers' use of global terms of reference is statistically verified through the quantitative analysis of their use of the repertory grid. Furthermore, in subsequent discussions of the qualitative results, I have signalled to the reader areas for further research which could usefully apply further quantitative analysis. In this way the two paradigms have proved to be compatible and the examples, especially from the children's data, have been particularly effective in sensing a 'flavour' of the work (Silverman, 1985) and have helped the account to 'live' (Robson, 1993). More importantly the qualitative analysis, particularly of the children's listening responses, led to a greater understanding of how music is perceived, how it is valued aesthetically, and how language is used to express conceptual understanding in music. This demonstrates how both quantitative and qualitative methods have been used to complement each other without necessarily compromising the constructivist position of the research.

Parts I and II differed in the type of quantitative design used to analyse the written responses i.e. Part I used verbal descriptions from which to elicit constructs, Part II used both a comparative 'odd-one-out' technique to elicit constructs as well as a repertory grid deriving from Personal Construct Psychology. I acknowledge that a similar design for both parts might have made comparative analysis easier, yet the

pilot work (Chapter 3) showed that the design was appropriate for the age and experience of the participants and the results reveal the strength of these two types of analysis by offering slightly differing perspectives on the investigation of listening responses.

My research role as both teacher and researcher has proved to be effective. This facilitated the collection of the data which was part of my everyday teaching both in school as well as in teacher training. Whilst working in this role in school I was also able to analyse the internal social hierarchy and the social use of language in order to reveal further levels of subjectivity beyond a consideration of cognition, individual listening style, age, and gender.

An area for further consideration is the teacher participant group which was selected on the basis of respective specialist and generalist courses. The results show that some novices had clearly received some musical training, albeit not to such a specialised level as the participants within the expert group. This would account for the few examples where novices used technical language. However, taking the group as a whole and the quantitative results, this did not effect the results overall.

8.3 Implications of the Results to Inform a View of Aesthetic Perception and Cognition

The research sought to make explicit the criteria of aesthetic appraisal: in other words, how teachers and pupils *perceived* how sounds are shaped into musical form, the *language* they used to describe it, and the *values* they placed upon it. This section relates the findings of the research to key ideas in the literature of the psychology of music cognition and aesthetic education. The key ideas are discussed in the following order: the perception of musical events as symbols, differentiation

and integration in relation to the development of conceptual understanding in listening and appraising, phase development, listening strategies and the dimensions of aesthetic listening. The section concludes by considering strategies for further research.

One aim of the research was to investigate how musical events were perceived as *symbols*. My research shows examples of responses which can be divided into two types, those which Gardner (1994) describes as *expressive symbols* i.e. those with no precise reference to other aspects of experience, and those which he describes as *denotational symbols* i.e. symbols of precise referential meaning. In other words, responses which show expressive symbolic meaning are expressive within the medium itself, where the musical event is a symbol e.g. the perception of pitch in terms of its melodic contour. Responses which show denotational meaning refer to a contextualised experience of music as symbol e.g. 'TV theme'. It would be possible to divide the responses in this way; such an analysis might show a predominance of expressive symbols in the responses within the categories of Musical Elements and Evaluation of Composition, for example. Similarly, denotational meanings would fall within categories of Style and Mood and Evaluation of Performance.

However, my research suggests that the picture is much more complex than this. For example, the analysis of the data shows that responses which contain expressive and denotational symbols are *not* necessarily defined by a particular category of response. Rather, individuals perceive music across categories using both types of symbolisation.

At this point I return to Werner's *orthogenetic principle* to show how my research illustrates the processes of *differentiation* and *integration* in relation to the development of conceptual understanding in listening and appraising. My research

demonstrates how listeners articulate their responses to show different levels of differentiation *within* each of the categories of perception i.e. Musical Elements, Style, Mood , Evaluation of Compositions and Evaluation of Performance. For example, within Musical Elements; sub-category pitch, differentiation occurs by developing from a simple recognition of high and low, to recognition of gradations of pitch, a greater tolerance of tessitura, recognition of pitch events within a schema of tonality and a sense of aesthetic 'fit'. Language use describes pitch movement in both technical terms and movement metaphor, and becomes increasingly more analytic with the effect of training and the acquisition of technical terms. This is not to say, however, that the conceptual shifts of understanding are not perceived by listeners without training; they are expressed in different ways, and sometimes in different categories. Qualitative shifts of perception are identified for example, when responses show, a sense of value beyond tunes which have a limited range, which use notes considered as appropriate for a particular tune, and when responses demonstrate an awareness of pitch relationships within the melodic contour and a tonal scheme. In this way shifts of perception signal increasing levels of integration.

Within the category of style, differentiation and integration occurs in a *different* way where meaning is mediated through culture and context. For example, style is often perceived as unqualified stereotypes, which become more differentiated across general stylistic descriptors and are then qualified in terms of specific musical features characteristic of stylistic idioms. The results corroborate the work of Hargreaves and Colman (1981) which found that participants could differentiate styles in a very detailed way within their own sphere of interest. In my research the data showed that experts differentiated more within the classical style and the novice teachers and children produced constructs in reference to vernacular styles. My research also shows the effect of culture and context on the process of differentiation. For example, the younger Key Stage 2 children produced responses which reflected their experience of media and television, whilst older Key Stage 3

children showed responses which reflected their personal experience of music. In this way integration is mediated by experience. This suggests that listening responses may become increasingly differentiated, accommodating subtle differences to become increasingly integrated within larger cognitive and experiential schema within the categories of perception. The evidence presented here corroborates Winner et al's (1996) finding that aesthetic perception develops property by property, and as this research demonstrates, category by category and sub-category by sub-category. The analysis of individual listening profiles sheds further light on this view, showing that this development is not necessarily sequential but is characterised by discontinuities and continuities.

The research also shows how the orthogenetic principle works *across* the categories of perception and the results demonstrate the increasing interconnection of construct systems. In this way the categories of analysis have been a useful tool for investigating these inter-relationships. For example, listening responses in the sub-category tempo are also differentiated in terms of structure, mood and a sense of flow. This is further differentiated in the responses at an individual level which again show discontinuities and continuities across categories of perception.

The case studies are in a sense 'snapshots' of listening profiles which give a momentary window into how listening becomes increasingly more differentiated and integrated at an individual level. The results show that some children have a fixed number of constructs which they apply in a limited number of categories. Others show a listening sensitivity across a wide range of categories of perception. What emerges is the map which a listener brings to the experience and how this is modified by musical training, personal experience, social interaction and verbal ability. This work could be developed on a longtitudinal basis.

This leads us to consider *phase development* in relation to aesthetic appraisal. In the course of the thesis I adapt Hargreaves and Galton's (1996) five phase model which incorporates general aesthetic developments as well as those which occur within music development. In Chapter 1, I set out a range of possibilities for how listening responses might concur within the five stages. In Chapter 5, the qualitative analysis of pupils' perception, I map responses which show different evaluative characteristics into the five phases. This is subsequently used to analyse individual listening profiles. The results demonstrate that this was a helpful tool in facilitating another level of analysis which went beyond examining *types of construct* and the *relative degree of differentiation* but also took into account considerations in *aesthetic development*, e.g. the pragmatic considerations, degrees of subjectivity, concerns for realism and convention, concerns for originality and being able to contemplate music events within the sense of the whole.

The application of this phase model as a means of analysis shows that some listeners produced a profile which was characterised by *one* phase of appraisal e.g. rule systems, in which a sense of the aesthetic is defined in terms of whether the piece sounds 'real' and 'proper'. Others showed a profile which contains *more than one phase* of appraisal. This type of analysis provides a further way of illustrating how listeners adapt and refine their construct systems.

This leads the argument to consider whether phases of appraisal are acquired in *sequence* or not; that one phase has to be mastered before another phase occurs. The results show that some profiles demonstrate phases of listening appraisal in sequence. Another case study shows a listening profile which contains many responses in one phase of appraisal, but some of which *leap* to a more advanced phase. This shows that the pattern of phase development may not be sequential. To conclude, whilst Hargreaves and Galton's model provides a useful tool in shaping a picture of aesthetic appraisal in the perception of music, further work in this area

needs to be undertaken. For example, there is sufficient evidence within my research to suggest that the age based guidelines which Hargreaves and Galton's model outline may not be applicable. Had it been directly applicable, all the responses within the study would have fallen into the rule systems phase between 8-15 years. However, results suggest that all phases occurred within the age range of 9-13 years. The present study also acknowledges that most did fall within the figural-to rule systems phase, with relatively few occurrences in the earliest pre-symbolic and final professional phases. One explanation for this might relate to the children's acquisition and use of language, which may not develop concurrently with the ability to demonstrate these phases within the medium (e.g. composition, singing). In other words, critical reflective language may develop later than comparative aesthetic developments within the art form. This is an area for further research. It is also questionable to use the term 'pre-symbolic', since language is a secondary symbol system. 'Surface appraisal' might be more appropriate.

The phase model analysis revealed how *consistent* the children were in applying the same constructs from when they *thought* about what made a good tune, to when they *responded* to four tunes presented by the researcher and when they *responded* to their own compositions and those of their peers. The results showed that whilst some applied the same constructs, other listening profiles became either more contracted or expanded. This is also another area for further research.

Another major theme running through the research considers *listening strategies* in terms of syntactic or analytic / non-syntactic, global or more holistic listening styles. As stated above, the research gives many examples to show how expert teachers perceive music in a more analytic way and novices perceive music in a more global way. The results show that this pattern occurs within the category of Musical Elements; sub-categories, pitch, duration, texture and structure, Style and Evaluation of Composition. The view is further refined in a discussion of the place

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of global perceptions *within* the experts' listening style. The literature (Pollard-Gott, 1983; Waterman, 1996) accounts for the absence of global responses in the experts' listening profiles because they remain implicit as part of the initial familiarisation of their listening experience. For the experts, the analytic mode is made explicit through their use of technical vocabulary. In a similar way the place of the analytic is refined further *within* the global perception of novices to show that novices often pick out individual events within the music in an analytic, but unsystematic way. This further substantiates the pattern of discontinuity and continuity in the conceptual development within aesthetic perception.

In many ways these listening strategies, which are used by experts and novices, can be accounted for in the way which the music is *memorised* and *recalled.* On the one hand, my investigation of listening responses confirms the view that experts have a more specialised schema which can store factual knowledge in larger functional units, have a knowledge of concepts which underpin a listening situation and can access this knowledge in a more systematic and effective way (Mayer, 1992). On the other hand, my research also illustrates that novice teachers and children's responses are more attuned to surface properties and holistic impressions which are gained from initial listening. The research shows that this holistic experience is often perceived by novices and children in a cross-sense way (synaesthesia), which is reflected in the language of shape, flow, movement and feelings. Often these insights 'capture' the piece in its essence. Research (Kemp, 1997), on listening responses in terms of field independence and dependence shows how this aspect could be further investigated at an individual level with respect to personality type.

This allows us to consider another major theme of the research in the relationship of *'subjective'* and *'objective'* responses within aesthetic perception and cognition. The research investigated a range of listening responses which ranged from personal preferences to judgements based on criteria which were applied in a more

analytic way. Some responses show a great deal of personal identification with the music, e.g. when the listener rates a piece highly because they like it or because the tune makes them feel a certain way. Qualitative shifts in conceptual understanding are demonstrated by the listener's increasing ability to articulate the musical qualities with respect to their structural significance within the music as a whole e.g. whether the tempo was appropriate for a particular composition. In Part I, the quantitative analysis of Studies 2 and 3 (Preference Ratings of Four Tunes and Written Responses to Four Tunes) corroborate the qualitative results to show that Key Stage 3 girls produce more responses, yet they rate the tunes lower. This shows how the older girls in this study seemed to be able to respond to the musical features without expressing a preference which might be indicative of a greater discriminative faculty.

In terms of the different *types of knowledge* in music education (Swanwick, 1996) the results demonstrate *procedural* knowledge in the way the keyboards were played (Evaluation of Performance), *propositional* knowledge in the factual analytic responses (Musical Elements, Style), *acquaintance* knowledge in the way responses reflect intuitions and impressions (Mood and Evaluation of Composition - global responses) and *attitudinal knowledge* in the evaluative judgements and statements of personal value (Evaluation of Composition). As we have seen in the discussion above, the picture is not so clear cut with respect to levels of training and different listening styles, such that a perception of tempo might be expressed using objective technical terms by a listener with more musical experience, (propositional) whilst a novice teacher or child, might recognise the same aspect of the music, but describe it in terms of movement or mood (acquaintance).

However, these examples show the degrees to which aesthetic appraisal in music development are presented to different degrees of integration. In other words, this investigation reveals the delicate balance within aesthetic perception between the

affective and the *cognitive*. *Cognitive perception* infers that musical meaning is derived from the understanding of the formal structure of the music, which develops parameter by parameter and is described through an increasingly discriminative vocabulary which becomes increasingly interconnected. The evidence presented here suggests this to be the case. The *degrees of objectivity* which some responses show can be described as *metacognitive* and as such have a meta-language of their own (I develop this in a later section of this chapter). As the results suggest *affective perception* infers that musical meaning can be derived extra-musically, through the emotions, through synaesthetic responses, through surface impressions, through expressions of value as well as in responses to structural features. As these perceptions become increasingly refined this leads towards aesthetic maturity which is characterised by a synthesis of the analytic and global, objective and subjective, cognitive and affective responses. The dualistic nature of these terms might suggest that these modes of perception may be in opposition. However, as the research shows, the distance between the poles serve as *continua* along which listening responses can be located and described. As such they are useful analytical tools in research into aesthetic perception in music.

This allows us to return to a main theme of the research and to evaluate the results in terms of investigating *listening and aesthetic experience*. In Chapter 1, I described a set of key concepts which referred to aesthetic experience. I want to draw the discussion to these features as follows. Beardsley's (1982) *second mode* of aesthetic attention suggests that 'aesthetic gratification may result in the consideration of the art work as elements ; formal relations, qualities and semantic aspects which are grouped according to the percipient's sense of fittingness or not' (Chapter 1). In the course of my research I have investigated these features as he describes them. Many listening responses describe this sense of *fittingness*, for example within and across the categories of perception, by the use of different constructs and through different phases taking into account the effects of age,

gender and training. One of the features of his *third mode* of aesthetic attention

suggests an emotional distance or detachment. In the course of developing this

argument I want to redefine this statement. Whilst mature aesthetic judgement may

indeed be characterised by more differentiated evaluative judgements, this is not so

much 'emotional detachment' as 'emotional integration'. It follows that the feeling

of transcendence which is associated with the 'eureka' experience of aesthetic

attention may be more a product of this synthesised state of being, or at least a

momentary glimpse or insight into this higher state of consciousness.

In the light of the findings in my study this leads us to consider a question which I

introduced in Chapter 1; what might it mean to listen to music ? On the one hand,

musicologists (Adorno, 1973; Dalhaus, 1982) argue that professional technical

knowledge is a pre-requisite for the aesthetic perception. In other words, this

represents *listening as a specialist process*. On the other hand, Geringer and Nelson

(1980) found that in higher level music education there was very little difference in

the quality of observations about a piece of music between students who answered

questions about the music to those who just listened. Zalanowski (1986) illustrated

the effect of analytic vs. global teaching strategies for non-music specialists to find

that a more analytical approach did not lead to an appreciably better understanding

or enjoyment of the absolute music. Conversely, when the participants in the study

were asked to listen to absolute and programmatic music, generating their own

mental images, this significantly enhanced their enjoyment of the music. To further

corroborate this view, Gould (1987) suggests that novice listeners who knew

nothing of the music in technical terms usually had an intuitive edge over the trained

musicians. My research contributes to this argument, showing that novice teachers

agree most on the global constructs of atmosphere, flow and whether the piece is

appealing. As stated above, often novices' appraisals capture the aesthetic of the

piece in its *essence*. A key question for the research is 'do untrained listeners get

more from the music?' (Waterman, 1996). Do experts have a more meaningful listening experience than novices?

From this question emerges two points for further discussion which relate *aesthetic experience to cultural conditioning*. First, it appears that for some, aesthetic maturity is a consequence of an increasing technical and specialist training. This view of aesthetic appreciation is contained within the rationalist view of knowledge which is fostered by our culture to the extent that music training reinforces this approach, and that the affective, emotional and personal responses to music are less valued if not dismissed by musicologists (Kemp, 1997). Since musicologists take a lead in defining course content and lead specialist courses, this is perpetuated through training. It is further reinforced within the current education system, where assessment models are expected to be as objective as possible and where 'validity depends on them being perceived as such' (Spruce, 1996, p. 169).

A second point, develops the notion of the 'modus operandi' of the informed 'aesthete' which is defined in the literature (Strawson, 1974; Reid, 1971) as the ability to critically interpret works of art using a set of characteristics which have been claimed as excellent and of high value. Some theories of aesthetic education suggest that these characteristics could be a set of *canons of form* i.e. unity, complexity and intensity (Beardsley, 1968). These canons have been assimilated and perpetuated within our cultural definition of aesthetic value. To a certain extent some of the responses in this study reflect this. For example, many responses, particularly by the experts refer to structural unity, and the value of complexity. However, it is difficult to ascertain whether these responses are a product of 'aesthetic cultural conditioning'. For the experts this might be the case, as the canons of form are transmitted through musical training. Yet the evidence from my research shows that children also use these types of construct. One explanation might be that the 'aesthetic cultural conditioning' may be implicitly transmitted in the

aesthetic values of their teachers. However, it might be the case that the criteria of

aesthetic perception are innately intuited. Therefore the role of aesthetic education is

to make these criteria explicit in order to share and understand how aesthetic

judgements are made. This aspect of the research aligns to the idea of *aesthetic*

ownership within a theory of aesthetic education which takes into account the

respective cultural arguments of Willis (1990) and Hesmondhalgh (1997).

At this point I acknowledge the role of such a *phase* model in my research. On the

one hand by mapping the children's responses into it, then using it as a tool for

further analysis at an individual level and by relating this to teachers' perceptions of

pupils' compositions, it plays a central part in the thesis. The use fulfils a need

perceived by Hargreaves (1996):

> we need research that renders these theories [*generalist and specialist*
> *teachers working theories of pupils musical development*] more explicit and
> that links them more clearly with the more abstract models available in
> psychological and educational research.   (p.167)

However, this model, is particular to *one culture* and its transcultural value may be

questionable. This is an area for further research.

Other themes which run tangential with this argument are the effects of *biology* and

sociology on aesthetic development. In Chapter 2, I considered the role of brain

hemisphere studies. The literature supports the view that listening to music is a

multi-modal mental operation (Sergent, 1993) and others argue that listening to

music may function as an 'exercise' for priming the neural pathways of the cortical

firing patterns responsible for higher brain functions (Rauscher, Shaw and Ky,

1995). The results I have presented here show how mature aesthetic perception is a

complex synthesis of modes of perception towards a higher order human function.

How far this is explained by neurological functioning is an area for further research.

Similarly, the gendered use of the brain may also account for some of the gender

differences resulting in my research. Examples, might be the way the girls produced

more responses overall than the boys across the categories of perception. The literature to which I refer in Chapter 2 (e.g. Kimura, 1992) suggests that females perform better in tests of perceptual skill and ideational fluency e.g. in listing synonyms. Should this be the case then it might be that the research design, which asked for verbal responses favoured females' perceptual style and their ability to describe their perceptions in words. Research evidence (Moir and Moir, 1998) also suggests that women are better 'readers of emotion' and have a better ability to describe their emotions verbally. My research evidence shows that in Part I: Study 1; What makes a good tune, the interaction between gender, key stage and category was significant (see Figure 4.1.3) showing that both Key Stage 2 and Key Stage 3 girls make more references to mood than the boys. In Part I: Study 3, Written Responses to Four Tunes, the significant interaction between gender, key stage and category (see Figure 4.3.6) illustrates that Key Stage 2 girls produce far more mood responses than Key Stage 3 boys, Key Stage 3 girls and Key Stage 2 boys. In Part I: Study 6, Written responses to Peer Compositions, the significant interaction between gender and category (see Figure 4.6.2) shows that the girls produced marginally more responses than the boys. This an area for further research which has 'normally' been conducted sociologically but may need to take into account neurological factors.

8.4   Implications of the Research for Aesthetic Development in Music Education

I shall now set the results of the research in the context of today's present educational climate. In the course of this chapter I discuss the implications of the research for the teaching of aesthetic development in music education.

One of the main aims of the research was to make explicit the working theories which both teachers, generalists and specialists, and children use as criteria and dimensions of aesthetic appraisal. In Chapters 4 and 5, 6 and 7, I set out the results which show both broad patterns of perception in the quantitative data and the use of language in the qualitative analysis. Central to the research is the *role of language* and its ability to contribute to aesthetic understanding. One of the ideas set out in Chapter 1 (p.28) suggests that language in music education may be able to build a vocabulary which can support a *meta-language*; the language of critical discourse. In the course of my research I make explicit how children might make qualitative shifts in musical understanding, the language which they use to describe them and how this contributes to such forms of expression.

In today's educational climate the role of language is a metaphorical 'hot potato'. At present, language and literacy in written and spoken form, has not only become equated with assessment and intelligence, but also seems to be valued over and above non-verbal modes of understanding. Recent SCAA documentation reflects this position. For example, the 'Exemplification of Standards, Music KS 3' (SCAA, 1996) provides examples of assessment evidence in music in the form of pupils' written portfolios. The document also sets out how teachers can be expected to interpret these in assessing End of Key Stage Statements, and also ways in which teachers can record and report pupils' musical achievements. Similarly, the 'Optional Tests at KS 3' (SCAA) set out possibilities for assessing musical achievement through written tests. As I have stated in 'The Language of Self assessment: Towards aesthetic understanding in music' (Mellor, 1999):

> ... there are some tensions between learning and assessment methods in music. The SCAA documentation for music states that young people should be empowered as music users and reflective appraisers, yet prescribes a fragmented model of 'objective' assessment. A curriculum led by this type of assessment can take away the joy and intrinsic worth of music making from its place in the world of personal meaning. Unless, that is, we redefine our relationship with 'assessment'.   (p. 187)

Assessment issues contribute to an area for concern within the profession. Whilst curriculum innovations have significantly changed the face of music in school in the last twenty years, research evidence (Hannam, 1992) suggests that secondary school music, remains as low in status in the late 1990's as was the case in 1970:

> Music continues to bear all the marks of a failed subject, with as many as 30% of pupils finding nothing interesting in their music lessons.
>
> (p.187-8)

This trend is reflected in falling recruitment and the labelling of music as a shortage subject for teacher training at the secondary level. More recent research in Ross (1997) demonstrates that in spite of increasing pupil support and lessons which are taught in a more interesting way, 'the enjoyment of music at Key Stage 4 remains disappointingly low'.

It appears that music in primary schools (where music is taught by non- specialists, with appropriate INSET) achieves better results. Music in secondary schools (where music is taught by specialists) is falling behind. Citations from OFSTED and SCAA (now QCA) documents provide evidence to support this view:

- Standards of achievement in class music lessons in Key Stage 3 are satisfactory or better in over three -quarters of lessons. In this respect, music compares poorly with most other subjects. .. taking insufficient account of the work done in primary schools.

  (OFSTED 1996, p. 20)

- Teachers in Key Stage 3 find the expectations challenging. There are a range of factors which affect progression and attainment in this key stage which need to be addressed if standards are to be raised. There is some confusion over the statutory assessment and reporting to parents. Further information has been requested before the assessments are made next year.
  - (SCAA 1998, Summary)

- Assessment of music at Key Stage 3 has caused considerable difficulties. Teachers often confuse attainment achievements and effort. There is still need to clarify assessment requirements.

  (SCAA 1998, Section 4)

- The quality of the music teaching which pupils receive in the limited number of lessons which take place in KS2 typically exceeds that in all other NC subjects; in KS3 it is usually lower than in the remainder of the curriculum.

  (OFSTED 1995, p. 3)

- Standards are satisfactory or better in nine-tenths of class lessons in Key Stage 1, and five-sixths of class lessons in Key Stage 2. They are good or very good in one-third of lessons. In Y1 to Y5 standards of composing have risen considerably in recent years. In primary schools standards and are satisfactory or better than in most other class subjects, especially in music composition.

    (OFSTED 1995, p. 18)

- Music can be taught effectively in the primary phase by teachers who do not have specialist training provided support is given, for example from a competent music co-ordinator, the use of well targeted resource/support materials and/or through appropriate INSET.

    (SCAA 1998, Summary)

- The issue of continuity, between Key Stages 2 and 3 in particular, is a major concern for many teachers of music. Teachers in primary schools are concerned that the standards achieved by the end of Key Stage 2 are not being built upon in Key Stage 3. Teachers in secondary schools are concerned that insufficient development of musical skills, knowledge and understanding has taken place though some secondary teachers do not take account of the breadth of skills, knowledge and understanding which pupils bring with them.

    (SCAA 1998, Section 12)

Furthermore, the profile of language is raised through reports on the use of

Language within the Common requirements of the National Curriculum (SCAA,

1997). In the separate leaflets which set out a policy for Music and the Use of

Language Key Stage 1/2 and 3 they:

> ... draw attention to the dynamic relationship between language and music, illustrate some of the main ways language and music can be developed together, highlight aspects of a musical vocabulary, identify what to include in longer term planning so that language skills are developed through work in music in school.   (SCAA 1997a, 1997b)

Clearly this is an issue for SCAA and they attempt to provide a way forward for the

role of language in music education:

> Teachers are encouraging the use of technical vocabulary with greater confidence but more help is requested with regard to the musical vocabulary which should be taught at each key stage.
>
> (SCAA 1998, Section 11)

> Teachers in all key stages need guidance on subject knowledge and how this knowledge can be integrated in practical work including the development of aesthetic awareness and musical vocabulary .
>
> (SCAA, 1998, Summary)

QCA (1998) have currently devised a discussion document which sets out again to define Musical Terminology. In considering the document it does not clarify the issues set out in the agenda above. At the time of writing the revision of the music curriculum 2000 is proposing levels of musical attainment which will need to be reviewed in the light of research findings.

My research may provide an alternative way forward to address one aspect of this disparity for the following reasons. In the course of my research, the results have made explicit how pupils and teachers have used vocabulary and terminology in their appraisal of classroom compositions. The research has thus been successful in making explicit the criteria which children and teachers use in their assessments. In the course of the analysis I have shown how construct systems are being continually adapted and refined towards higher levels of music conceptual understanding, revealing qualitative shifts in understanding within the pupils' perceptions to account for age and gender, and the social construction of language in the classroom. The overall results of the research show that a significant disparity occurs between how the specialist teachers (experts) perceive music in relation to the generalist teachers (novices) and children, who share similar patterns of perceptions. Of particular interest and consequence is the way that language is used. I suggest that this is one of the principal reasons why Music at Key Stage 3 is less successful than Music in the primary school at Key Stage 2. My evidence suggests that the generalist teacher's aesthetic is more 'in tune' with the children's aesthetic and the commonality of language which they share, provides a basis for mutual understanding and learning. At Key Stage 3 the reverse might be true.

In my experience, secondary trained teachers of music have internalised a highly technical vocabulary. The value they place on this language arises from a specialised training. Embedded in this 'language of the expert' is power. It is easy to see how learners can get dispirited if the teacher responds to their compositions, albeit

without awareness, using such a battery of technical terms. Implicit is the underlying message that other responses, which maybe do not have the sophistication of technical music vocabulary or responses which allude to feelings, are *not* valued. With this in mind it is easy to see how the teacher's view of achievement in music can be equated with an over emphasis on the acquisition of a technical vocabulary, and how it is both affirmed by and perpetuated through the assessment model.

In the light of this, it would seem that the Phase 2 Report (SCAA, 1998) is both naive and unaware to promote the way forward through a concentration on promoting a technical vocabulary. As so often is the case (OFSTED, 1996) teaching at Key Stage 3 concentrates too much on the teaching of the elements of music. The situation is intensified by published material which is designed in this way. This approach results in music verbal training, rather than music conceptual understanding. Furthermore, as I have argued in Chapter 3, if the elements of music are separated out from the semantic principles in which they are embedded, then the training is less effective. It follows that it is not enough to use written listening tests or self evaluation sheets which encourage labelling in technical terms as evidence of musical learning. The consequences of such a pedagogical approach is that in the long term, children may buy into the 'game' of verbal training, real music learning is lost and most important, the pupils become disaffected as their aesthetic ownership is threatened.

From my research I suggest that a way forward to redress this balance is to respect the aesthetic of the novice teachers and children. As the results of my research suggest, here lies the key to finding a place for language which not only develops music vocabulary and terminology, but also plays an important part in developing conceptual understanding in music education. The differentiated levels which have been sketched out within and between categories of perception through a

constructivist investigation may contribute to a greater understanding of the vocabulary which could be taught at each Key Stage to lead to a greater awareness of the role of technical terminology. My research also leads to a view which does not advocate a sequence of learning within the elements of music, but alerts the teacher to children's individual listening styles and sensitivities to particular aesthetic dimensions with respect to age, gender and the social context.

Furthermore, the two areas of *language* and *aesthetic development* can be seen as interrelated. I shall now consider the final remit of the research to set out a framework for guidance which :

- creates a greater understanding of the continuity and progression of learning between KS 2 and KS 3;

- develops a mutual understanding between teachers in both primary and secondary schools;

- provides guidelines for developing a shared and meaningful vocabulary which can be used for drafting criteria for assessment with pupils;

- acknowledges and respects the rightful place of language in music education to 'bring musical understanding home' in its deepest 'aesthetic' sense.

This leads us to the role of *meta-language* and the role of reflective teaching and critical discourse. As we have seen, the language which describes the progression of learning in the Music National Curriculum does little to explain qualitative shifts of perception. Musical understanding is not simply demonstrated as successive analytical discriminations within each musical element in turn, nor between the musical elements, but rather when a young person can demonstrate relationships and connections across all categories of perception with an increasing critical awareness (as demonstrated through the phases of artistic appraisal.) The work of

Flynn and Pratt (1995), described in Chapter 1, sets the foundations for developing the pedagogy of appraising through reflective teaching in music education.

The results of my research may be helpful (a) for teachers to understand how children make qualitative shifts in musical understanding (b) to help specialist music co-ordinators understand music perception from the novices' and children's aesthetic point of view, thereby bringing about a more fruitful critical discourse (c) to help specialist music teachers consider the children's aesthetic and be aware of the effects of their own specialist training and the effect it has on their teaching at Key Stage 3 (d) to plan for different listening styles (e) to include a range of different tasks which use different listening strategies.

From a teacher's point of view, by 'attuning' to the language which pupils use and by encouraging them to make language choices beyond their 'typical' profile, learners can move through both objective and subjective modes of discourse. This means that teachers can enable learners to develop both a voice of the inner critic, which belongs to an understanding of their music in personal terms, as well as a public voice, which enables learners to contribute to a wider debate of what construes aesthetic value in music. Such might be the educative role of language in music in building a vocabulary which can support a meta-language. In this way genuinely reflective language can lead to metacognition and in this process, whereby individuals become aware of their own thinking, lies the relationship between *metacognition* and *aesthetic development*. Reflective teaching which encourages reflective language informs the process whereby qualitative shifts are identified, by the pupils themselves. I would argue the case in answer to Paynter's assertion (1992) quoted in Chapter 1, that this is a 'suitable way to help students to engage with the hierarchy of elements and with questions of continuity that work together to make a piece of music whole'. It is also a way for teachers to continually learn about how children construct their aesthetic values without imposing their

own, in which criteria for aesthetic appraisal can be drafted, mutually understood and meaningfully applied.

The implications of the role of reflective language as part of the learning process can be summarised for music educators in three ways. First, the teacher creates a classroom climate where the learners take ownership of their music making. From here, young people are invited to share their ideas in their 'authentic voice'. Through dialogue they come to a shared understanding of what constitutes the quality of value in their work - be it a keyboard composition, or whatever the performing or composing task is at hand. In this way the criteria for the learning are self-determined and the ownership of the music making remains with the learning. By drafting criteria in this way, the relationship between the learner and the learning objectives has a better chance to remain intact. Assessment becomes integrated and sits happily and naturally in the learning process. Learning objectives take account of both the content and the process of learning, seeing language not only as proof of learning, but as part of constructing learning. Third, by encouraging young people to engage in reflective stance on the language 'voices' they have used, learners have a genuine opportunity to contemplate and choose an alternative voice. In doing so, pupils have the opportunity to make new language choices, extend vocabularies, exercise increasingly discerning judgements in the course of appraising their own musical and personal development. By offering ownership in this way, the path opens out for promoting independence in learning and offers the opportunity for young people to take their place in public dialogue, further practical engagement and a certain kind of self-conscious awareness.

One important point which my research raises is found in the significant interaction of gender and key stage (see Figure 4.5.1) which illustrates an investigation into children's ratings of their own compositions. The results show that whereas boys' self-rating increases with age, girls' self-rating significantly decreases with age.

This corroborates the work of Murphy and Elwood (1997). Any form of reflective teaching in which children are engaged in self appraisal should take this into account as well as the social dynamics of the classroom culture. This is also an area for further research.

In conclusion, I confirm Gardner's view that the role of language is a secondary symbol in relation to aesthetic development in the arts. My research states the case for developing the role of critical discourse, within the aesthetic domain towards contributing to our understanding of higher order conscious awareness. In this process it considers the place of the social, cultural and biological determinants in music perception. Whilst my research shows how aspects of music perception can be revealed through verbal responses, language which describes listening responses should *not* be seen as qualitatively more advanced than primary symbol making within the medium of music. The primacy of music education is within the medium of sound and whilst language can help us understand the meaning of symbols in music perception it can only ever play a secondary part in making explicit what constitutes musical knowledge and the conceptual relationships between expressive and structural elements.

On the strength of this investigation, I suggest a middle way for future developments where music educators do *not* follow the model of the expert who communicates the value of music in technical terms. Instead the lead should be taken from the generalists and children. As the evidence presented in this research suggests, this is where the generalist teachers of music retain their intuitive edge and more closely connect with the children. It can be argued that teaching music as 'teaching by elements' has played its part in helping us to understand music in its component parts. However, music perception is more than the sum of its parts. To continue teaching in this way dismisses the richness of the listening experience and denies learners a feeling for the personal value of music. Furthermore, this

reductionist pedagogy results in 'freeze framing' music and denying its force as a temporal art form. Music teaching needs to reconsider the medium in its temporal essence : the characteristics which generalists and children intuit as the aesthetic criteria of movement, shape, flow, continuity and the quality of the experience.

At the same time, this middle way does not deny the role of technical knowledge and language in music education. The evidence presented here shows how it relates to conceptual understanding, and how this can be developed in the classroom through reflective teaching and shared discourse to achieve higher order thinking and awareness. As such, music education plays its part in developing a view of intelligence which is not divided through the dualistic principles of scientific and artistic knowledge, the rational and non-rational, the objective and subjective, and the cognitive and affective. In part these terms are useful as analytical tools in considering aesthetic development in music education but they need to be more integrated within a more refined and variegated definition which I have developed in the course of this research.

Thus in the course of this chapter I have compared the results of Part I: Pupils' Perceptions of Compositions with Part II: Teachers' Perceptions of Compositions and examined the outcomes in terms of the theories introduced in both the aesthetic education literature in Chapter 1 and the psychological literature in Chapter 2. The conclusions drawn bear out the theories within the developmental literature to suggest that aesthetic perception is a symbolic activity which develops with age and, most importantly, that aesthetic perception as cognition is inclusive of a range of modes of understanding (Goodman, Gardner, Reid). Whilst the findings respect the place for the aesthetic non-verbal 'awe experience' (Beardsley, 1982) the findings also recognise the role of language in making explicit the criteria of aesthetic judgement. In this way the research contributes to a theory of aesthetic education following Smith, 1989; Aspin,1987; Reid, 1969 and Ross, 1984) situated within a

'real world' research paradigm deriving from cultural studies (Willis, 1990; Bruner, 1996), social psychology (Hargreaves and North, 1997), music sociology (Green, 1988), personal construct psychology (Kelly , 1955) and music education (Loane, 1991).

The findings adapt and refine the music education models of development (Swanwick 1986, 1994) and psychological models of aesthetic development (Hargreaves and Galton, 1992) to show how listening responses are differentiated with age as well across a range of domain specific properties (following Lamont, 1998a, Dowling, 1982 and Smith, 1983). The research also contributes to an understanding of listening styles and strategies by experts and novices following the theories of Mayer, 1992; Jeffries et al., 1981; Pollard-Gott, 1983; Gromko, 1993; Zenatti, 1991; and Zalanowski.1986. Taking the lead from Green (1993, 1997) and some psychometric studies (e.g. Sloboda) the research develops an understanding of gendered listening responses. My conclusions set out the relationship between language and appraisal (after Flynn and Pratt, 1995) and contribute to pedagogy in the area of reflective critical meta-language (Ross et al. 1993b, Bruner, 1996; Usher and Edwards, 1994) as one way forward for reinstating the role of aesthetic perception in music in the assessment of pupils' compositions.

Thus, in the course of this chapter I have compared the results **of Part I: Pupils' Perceptions of Compositions** with **Part II: Teachers' Perceptions of Compositions** and examined the outcomes in terms of the theories introduced in both the aesthetic education literature in Chapter 1 and the psychological literature in Chapter 2. The conclusions bear out the theories within the developmental literature to suggest that aesthetic perception is a symbolic activity which develops with age and most importantly, that aesthetic perception as cognition is inclusive of a range of modes of understanding (Reid, 1969; Goodman, 1984; Gardner, 1994). Whilst the research acknowledges the place for the aesthetic non-verbal 'awe experience'

(Beardsley, 1982), the findings support the case for the role of language in making explicit the criteria of aesthetic judgement. In this way the research contributes to a theory of aesthetic education following Smith (1989), Aspin (1987), Reid (1969) and Ross (1984) which is situated within 'real world' research deriving from personal construct psychology (Kelly, 1955), cultural studies (Willis, 1990; Bruner, 1996), social psychology (Hargreaves and North, 1997), music sociology (Green, 1988), and music education (Loane, 1991).

The results adapt and refine the music education models of development (Swanwick 1986, 1994) and psychological models of aesthetic development (Hargreaves and Galton, 1996) to show how listening responses are differentiated with age as well across a range of domain specific properties following (Lamont, 1998a), Dowling (1982) and Smith (1983). The research also contributes to an understanding of listening styles and strategies by experts and novices following the theories of Mayer (1992) Jeffries et al. (1981), Pollard-Gott (1983) and Gromko (1993). Taking the lead from Green (1993, 1997) and psychometric studies (e.g. Sloboda, 1985) the research develops an understanding of gendered listening responses. My conclusions set out the relationship between language and appraisal after Flynn and Pratt (1995) and contribute to pedagogy in the area of reflective critical meta-language (Ross and Mitchell, 1993a; Bruner, 1996; Usher and Edwards, 1994), as one way forward for reinstating the role of aesthetic perception in music in the assessment of pupils' compositions.

It is from this standpoint I argue that music perception contributes a means to develop 'a rich, colourful symbolic mental life ... a powerhouse of dynamic experience and inner life which is utilised in all creative enterprise' (Kemp, 1990). To reconsider the aesthetic dimension in music education recaptures something of the meaning and value which children are closely connected with and it needs to be carefully articulated within pedagogy, especially at Key Stage 3, if we are to

address the disparity set out above. This research offers something towards redressing the balance within listening and appraising in the music curriculum and its educational potential for the whole child. Furthermore, the results presented here may press an alarm button for those who consider specialist teaching in primary education, and particularly at Key Stage 2. Pressures are great. Political think tanks are calling for research which justify the arts, not as a means in themselves but as a means to more effective learning (NFER, 1998). OFSTED are writing the message on the wall, as educators we need to respond. This research may have a role in making one response.

NAME _____ CLASS _____

PART 1

Write neatly below and answer this question.

> ### WHAT DO YOU THINK MAKES A GOOD TUNE ?

PART 2

Listen to the following tunes. Which do you think makes a good tune?

1 = GOOD   2 = FAIR   3 = POOR

Tick the box below and say WHY you have given it the mark.

TUNE 1

TICK :   1   2   3

WHY :_____

TUNE 2

TICK :   1   2   3

WHY :_____

TUNE 3

TICK :   1   2   3

WHY :_____

TUNE 4

TICK :   1   2   3

WHY :_____

PUPIL SELF ASSESSMENT SHEET (MARKS AND WRITTEN RESPONSES)

NAME   --   CLASS   -----------

No.	NAME	MARK out of 10	REASON WHY

INDEX OF AGREEMENT : CODING ANALYSIS

Name : Group :	Score	I Musical Elements	II Style/ Period	III Mood	IV Evaluation of COMPOSITION	V Evaluation of PERFORMANCE
ANALYSIS A						
SUB-TOTAL						
ANALYSIS B						
A						
B						
C						
D						
SUB-TOTAL						
ANALYSIS C						
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
SUB-TOTAL						
TOTAL INDEX						

NAME --- GROUP ----------

SET NO. ....

1.   1   2   3   is the odd one out because _____

_____

_____

2.   1   2   3   is the odd one out because _____

_____

_____

3.   1   2   3   is the odd one out because _____

_____

_____

4.   1   2   3   is the odd one out because _____

_____

_____

5.   1   2   3   is the odd one out because _____

_____

_____

6.   1   2   3   is the odd one out because _____

_____

_____

7.   1   2   3   is the odd one out because _____

_____

_____

8.   1   2   3   is the odd one out because _____

_____

_____

9.   1   2   3   is the odd one out because _____

_____

_____

Read instructions for Part II : *Odd-one-out* **procedure**

1.   You are going to hear three pieces of music. As you listen to them - you may if want to - jot some notes to remind you about each piece. If you don't want to make notes, just listen to the pieces.

(The music is heard)

2.   Now choose which piece is the odd one out of the three. Mark that piece with a circle on your paper and write the reason that makes it different to the other two.

3.   Now think of <u>another</u> reason why one of the pieces is the odd one out. It may be the same piece or it may be one of the others. Circle its number by question 2 and give your reason for it being different.

4.   Go on choosing different reasons for picking an odd one out until you run out of ideas. Then listen to the pieces again.

(The music is heard again)

5.   Now you have heard the pieces again write down a new choice and reason. Again, think of as many choices and reasons as you can. Carry on until you can think of no more answers.

GROUP _____

PIECE NO. 1

not rhythmic:	:	:	:	:	:	:	: rhythmic
dull:	:	:	:	:	:	:	: lively
unstructured:	:	:	:	:	:	:	: structured
limited range:	:	:	:	:	:	:	: wide ranging
unfamiliar:	:	:	:	:	:	:	: familiar
not memorable:	:	:	:	:	:	:	: memorable
not atmospheric:	:	:	:	:	:	:	: atmospheric
disjointed:	:	:	:	:	:	:	: flowing
unoriginal (safe):	:	:	:	:	:	:	: original (imaginative)
not tuneful:	:	:	:	:	:	:	: tuneful
simple:	:	:	:	:	:	:	: complex
unfinished:	:	:	:	:	:	:	: finished
technically unskilful:	:	:	:	:	:	:	: technically skilful
not appealing: :	:	:	:	:	:	:	: appealing

PIECE NO. 2

not rhythmic:	:	:	:	:	:	:	: rhythmic
dull:	:	:	:	:	:	:	: lively
unstructured:	:	:	:	:	:	:	: structured
limited range:	:	:	:	:	:	:	: wide ranging
unfamiliar:	:	:	:	:	:	:	: familiar
not memorable:	:	:	:	:	:	:	: memorable
not atmospheric:	:	:	:	:	:	:	: atmospheric
disjointed:	:	:	:	:	:	:	: flowing
unoriginal (safe):	:	:	:	:	:	:	: original (imaginative)
not tuneful:	:	:	:	:	:	:	: tuneful
simple:	:	:	:	:	:	:	: complex
unfinished:	:	:	:	:	:	:	: finished
technically unskilful:	:	:	:	:	:	:	: technically skilful
not appealing: :	:	:	:	:	:	:	: appealing

PIECE NO. 3

not rhythmic:	:	:	:	:	:	:	: rhythmic
dull:	:	:	:	:	:	:	: lively
unstructured:	:	:	:	:	:	:	: structured
limited range:	:	:	:	:	:	:	: wide ranging
unfamiliar:	:	:	:	:	:	:	: familiar
not memorable:	:	:	:	:	:	:	: memorable
not atmospheric:	:	:	:	:	:	:	: atmospheric
disjointed:	:	:	:	:	:	:	: flowing
unoriginal (safe):	:	:	:	:	:	:	: original (imaginative)
not tuneful:	:	:	:	:	:	:	: tuneful
simple:	:	:	:	:	:	:	: complex
unfinished:	:	:	:	:	:	:	: finished
technically unskilful:	:	:	:	:	:	:	: technically skilful
not appealing: :	:	:	:	:	:	:	: appealing

AUDIO APPENDICES / ADDENDA

AUDIO APPENDIX 1

Pupil's Compositions: SET 1 and SET 2

CD Track		
1	SET 1: Composition 1	First Playing, Repeated Playing
2	SET 1: Composition 2	First Playing, Repeated Playing
3	SET 1: Composition 3	First Playing, Repeated Playing
4	SET 2: Composition 1	First Playing, Repeated Playing
5	SET 2: Composition 2	First Playing, Repeated Playing
6	SET 2: Composition 3	First Playing, Repeated Playing

AUDIO APPENDIX 2

10 Pupil Compositions

CD Track	
7	Composition 1
8	Composition 2
9	Composition 3
10	Composition 4
11	Composition 5
12	Composition 6
13	Composition 7
14	Composition 8
15	Composition 9
16	Composition 10

RELATED CONFERENCE PAPERS,

LECTURES, RESEARCH SEMINARS AND PUBLICATIONS

CONFERENCE PAPERS

1996 *Aesthetic Development in Music Education: pupil and teacher perceptions of children's compositions.* Conference of the Society for Research in Psychology of Music and Music Education: Perspectives on Music, the Mind and Education, University of Cambridge.

1997 *The Use of Personal Construct Psychology to Investigate Teachers' Responses to Children's Music Compositions.* Personal Construct Psychology Conference, Constructing Meanings within Professions, University of Reading.

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LECTURE

* 1995 The Reflective Practitioner - reporting on PhD Research in progress in Aesthetic Development in Music. Louis Arnaud Reid Lecture, M.Ed. Creative Arts Summer School, University of Exeter.

RESEARCH SEMINARS

1996 Psychology Department: Psychology of Music, University of Leicester.

1997 Homerton College, Part 2 Tripos Research Methods, Case Study.

1999 Psychology Department; Psychology of Music, University of Keele.

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