

*Mapping
Music
Education
Research in
the UK*

BERA Music Education Review Group

BERA REVIEWS

In 1999 BERA began a series of national events on research findings in an attempt to create a map of current British educational research activity. Each event would lead to a review of the relevant literature. Subsequently HEFCE offered funding to support the idea of 'user reviews' - which would be a way of communicating academic findings to potential users of the research. A third initiative was putting a listing of currently available research reviews (originally developed by the ESRC TLRP) onto the BERA website. Although these developments seemed at the time to be straightforward they have proved difficult to orchestrate.

BERA Council has now adopted the idea that three main types of review of educational research be recognised and promoted, viz: academic reviews, professional reviews, and news review.

An **academic review** can be seen (in the words of the EPPI Centre) as 'systematically identifying research reports and assessing them in an explicit and standard way so as to produce accessible syntheses of research findings.' Its prime audience is likely to be academic researchers. Academic reviews arising from BERA national events are being posted on our web-site (www.bera.ac.uk) in the section 'Map of Educational Research'. Some of these reviews will lead to **scholarly summary reviews** published in academic journals.

A **professional review** (or 'user' review) can be seen as normally arising from an academic review in such a way that it: is devised and written by researchers and users working together; brings together the findings of trustworthy research studies on significant educational questions of immediate concern to practitioners and/or policy-makers; channels them into a user-friendly and trustworthy document, which aims to inform critically the thinking of practitioners and/or policy-makers, and thereby stimulates discussion and worthwhile educational action.

A **news review** can be seen as an abbreviated professional review probably focussed on a particular group of practitioners or policy makers.

Like most classifications this has its problems! We have decided to go ahead and publish in two forms: on the BERA website and, in a few cases where a large 'user' readership is envisaged (as here), in hard copy.

Michael Bassey, BERA Academic Secretary, October 2001

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Mapping Music Education Research in the UK

BERA Music Education Review Group¹

Abstract

Over the past twenty-five years there has been an increasing and worldwide research interest in music education, embracing a range of disciplines and perspectives. As well as particular research foci on the nature of curricula, musical behaviour, and development, new research literatures have been developed that link music education with ethnomusicology, psychology (including neuropsychobiology, cognitive and developmental psychology), history, sociology and philosophy, as well as with mainstream studies in pedagogy. The review creates a 'map' of these various and related literatures in order to (i) provide a summative overview of the current breadth and depth of available research knowledge for actual and potential users, and (ii) create a research development agenda that embraces indicators of possible research priorities for the immediate future. The review is also a celebration of the major UK impact on these research literatures. An introduction (Swanwick) leads into a series of linked overviews, focusing first on research concerned with individual musical development (Hallam & Lamont), then on the potential impact to musical learning of social group membership (O'Neill & Green) and schooling (Cox & Hennessy) and concluding with an ethnomusicological perspective (Farrell) and coda (Welch).

¹ The BERA Music Education Review Group is the collective name used by the authors for their presentations at the BERA National Event Number Five 'Mapping Music Education Research in the UK' that was held at the University of Surrey Roehampton on 18 September 1999. The event was convened by Professor Graham Welch, Professor David Hargreaves and Professor Anthony Kemp of Roehampton's Centre for Advanced Studies in Music Education. The authors are Professor Keith Swanwick (Institute of Education), Dr Alex Lamont (Leicester), Professor Susan Hallam (formerly Oxford Brookes, now Institute of Education), Dr Lucy Green (Institute of Education), Dr Susan O'Neill (Keele), Sarah Hennessy (Exeter), Dr Gordon Cox (Reading) and Dr Gerry Farrell (City). The editor is Professor Graham Welch, now at the Institute of Education, University of London.

AN OVERVIEW

Keith Swanwick, *Institute of Education, University of London*

The changing scene

Once upon a time there were three camps established on the British hillside of music education. They lay almost out of sight of one another. In one camp was a group of people sharing a version of the psychology of music, which was concerned almost exclusively with 'ability tests'. These were serious researchers, expert in basis statistics and many of whom believed that the discrimination of musical tones and the recognition of metrically organised rhythmic fragments were the ultimate indicators of musical achievement and could even structure the music curriculum.

Over the far side and higher up the hill was pitched the creativity tent to which visitors brought news of a far country where spontaneity and inventiveness were valued, where music was regarded holistically and where composing in the classroom joined hands with the exploratory attitudes and serious work of contemporary composers. No road lay between these two camps and there were occasional outbreaks of hostility when the parties came across one another by accident or published papers that appeared to invade the others' territory.

The third camp lay near the base of the hill and was occupied by those who worked in schools and colleges in the nearby town. Many of these people rarely had time to accept occasional invitations from the other two camps to attend their pow-wows and sing-songs. Indeed, they may have suspected that these events were not only a waste of time, but also a destabilising influence on the 'common-sense' world of classrooms. Even so, they did sometimes make forays up the hill and got hold of the Bentley's *Measures of Musical Abilities*, which occupied their classes for half an hour. And some even tried 'creative' activities, such as having students collect street sounds on tape recorders, an activity which took even longer and had interesting, if less numerical, outcomes.

There were a few people who went – often secretly - from camp to camp and indeed visited activities on other hillsides than music education. There were some who tried to understand and formulate a rationale for what they were doing. It so happens that two of these people met up in a foreign place and agreed to set up a joint camp on the hill where all were to be welcome, so long as they avoided speaking in jargon and based their work on '*careful and critical enquiry*'. So the *British Journal of Music Education* came into being.

There were of course other journals already in existence, including *Psychology of Music*, but the BJME was an attempt to open out a wider spectrum of debate in music education. It has been a reasonably good barometer of change in the field. Since 1984, a number of the texts have become classics, known world-wide, cited in dissertations and translated into several languages. As to content, the indexes of 1984-88 and 1989-93 both show a large number of articles on music curriculum issues, while 'composing' has a total of 16 index references in the first four-year period, but only two in the second. Women and music and world music appear in the indexes only after 1988. Curiously, 'research' is a separate category in the *Index* and seems to have been associated mainly with explicitly quantitative methodologies.

Spurred on by new publications and the growing possibility of higher degrees, music education research communities (as broadly conceived) began to grow exponentially. The hillside is now littered with tents. Sustained work is evident notably in the universities of London, Surrey Roehampton (then the Roehampton Institute), Reading, Keele, Leicester, and Sheffield (going from South to North). The methodologies range from naturalistic observations to experiment. Research foci include the nature and

development of musical understanding (cognition), response to music, music aesthetics, curriculum evaluation (in particular the relationship between composing, performing and audition), music and personality, the history of music education, the development of instrumental/ performing skills, musical motivation and the social functions of music, music therapy. Three broad criteria emerge of significance.

Criterion 1- careful and critical enquiry

First, the BJME emphasis on careful and critical enquiry is worth restating. By critical I mean that we are critical of our own paradigms and methods, prepared to investigate alternative explanations for the phenomena we are examining. Otherwise we might be engaging in a form of journalism - an important activity - but not research in the strongest sense of the word. This tendency is perhaps most apparent in some qualitative work. 'Critical' means not only following the rules of the game in a particular field, but also engaging with a wider community of thinkers than those immediately close to the issue. It is very important to distinguish between musical conventions – which are obviously and inevitably social - and the reflection of extra-musical socio-cultural values in music – a relationship which cannot be automatically assumed and the defence of which has produced a certain amount of hot air (Swanwick, 1999). Musical discourse is inherently social, though not in the deterministic sense of representing of 'reflecting' society. Musical styles are maintained and developed through give-and-take in interpretative communities.

The social anthropologist, Clifford Geertz, is often quoted by those wishing to advocate attention to the social context of artistic production. But even he agrees that to study an art form is 'to study a sensibility' and that this leads us away from what he calls the functionalist view, that 'works of art are elaborate mechanisms for defining social relationships, sustaining social rules, and strengthening social values' (Geertz, 1983: 99). With the increasing spread of accessible 'world musics', we need to examine carefully the different effects of teaching music as though it were cultural studies or alternatively teaching cultural studies through musical activity itself.

Criterion 2 – illuminating musical transactions

The second criterion for evaluating research on our particular hillside is that the relationship between music, student and teacher is kept in the centre of the frame. However broadly we define the field of music education, there is an implication that someone, somewhere is getting into music, learning something, and that in these transactions there are models and/ or critics. The nature of musical understanding lies at the core of my own work, though people in some of the other tents tend to call understanding 'cognition', a term I tend to avoid because of its historical separation from affective experience (Swanwick, 1994). Whatever our focus, terminology or theoretical frame, the illumination of musical transactions surely is an important credential for any research in music education. It is by this touchstone that we decide what questions are important in the field of music education.

Criterion 3 – a visible track record

The third criterion is a visible track-record. For an institution to be regarded as a significant international research centre we would expect to find a number of completed PhDs, widely cited and translated publications by its faculty and probably the ability to attract research funding. There should also be evidence of influence among the musical and educational professions. Any professional influence is unlikely to take the form of 'quick fix' solutions, though something like this appears to have been looked for in the inconclusive and somewhat desperate efforts to prove that music has an effect on schoolwork or social adjustment. I am reminded of Hanslick in *The Beautiful in Music* pointing out that 'there is no record of a doctor sending his patient to hear Meyerbeer's *Prophet* in order to cure him of typhus, or of the French horn being used instead of the lancet' (Hanslick, 1854). I am certainly of the view that music one of the important forms of human discourse and that musical engagement has profound consequences beyond its immediate experience. It is more likely though that research into the nature of musical transactions will permeate policy and practice over a period of time.

On this issue of relevance and application, there is much to be done to counter the heavy weight of habit and 'common-sense'. For example, we have good evidence that instrumental teaching in groups can be at least as effective as individual teaching, including the development of technique (Thompson, 1984). Yet the 19th century model of conservatoire (i.e. 'private') teaching mostly prevails. We also know quite a bit about the positive interactions between composing, performing and audience-listening (Swanwick & Franca, 1999).

Schools and colleges cannot be musical islands. Musicians, individuals and communities are part of the music education network and colleges and schools might see themselves as facilitating agencies rather than sole 'providers'. Music is not a single entity easily reduced to work in conventional classrooms, but a multiplicity of different idiomatic activities, each requiring some specialist know-how, varying group size and different levels and types of equipment. No wonder that 'school music' still appears to many young people as a subculture, separated from music 'out there' in the world, abstracted by the constraints of classrooms and curriculum and subject to very curious arrangements for assessment. We can do better than this and good research might help us.

Of course we need to know more. We also need to know '*different*', to resist the temptation to only recognise research that conforms to the procedures of our local occupational tribe. We need to visit the tents of other people on the hillside of music education and indeed on other hills and critically engage with them, while at the same time developing our own personal projects. For, in my view, it is the conceptual thread that runs between specific investigations that ultimately matters: the development of distinctive ways of looking at the world.

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LEARNERS: THEIR CHARACTERISTICS AND DEVELOPMENT

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Introduction

Learning appears to be a natural process for human beings (Newell, 1990). Humans learn in a wide range of circumstances, often in spite of all kinds of obstacles. Most learning requires time and engagement (Hallam & Ireson, 1999), although some learning occurs relatively automatically. When considering the learning process, we need to account for the complex set of dynamic relationships that are involved (Hallam, 1997; 1998). Different parts of this process have been identified (Hallam, 1998) as: characteristics of the learner, the learning environment, learning requirements, processes of learning and learning outcomes. Research will be reviewed here relating to all of these components.

Research exploring learning in music can be broadly separated into two categories, studies focusing on *enculturation* and those focusing on training or *generative* skills (Sloboda, 1985: 195-6). Enculturation refers to general developmental processes that are characterised by, and resulting from, a shared set of primitive capacities, a shared set of experiences provided by culture, and the impact of a rapidly changing general cognitive system. Generative skills refer to specific experiences not shared by all members of a culture, resulting in expertise, occurring in a self-consciously educational milieu, characterised by and resulting from specific specialised experiences, self-conscious effort, and instructional method. In practice, these two aspects of musical learning are frequently intertwined.

Musical Enculturation

Musical enculturation begins at the point when the auditory system is functional, about three months before birth (Lecanuet, 1996; Parncutt, 1993). Infants exposed to music in the womb show 'recognition' responses to that music, both before and immediately after birth (Hykin *et al.*, 1999; Shahidullah & Hepper, 1994). Infants become quickly accustomed to the particular structure of the music that surrounds them, preferring patterns that conform to that structure by around 12 months (Trehub *et al.*, 1997). They show recognition of contour patterns from about 6 months onwards (Trehub *et al.*, 1984). They also respond actively to sound, from reflex movements in early infancy to co-ordinated actions emerging at around two years, with babbling from nine months progressing to songs during early childhood (see Hargreaves, 1986; Deliège & Sloboda, 1996 for reviews of infant and childhood musical behaviours).

Early researchers developed measures of 'musical ability' (Bentley, 1966; Gordon, 1965; Seashore *et al.*, 1960; Wing, 1961) for the practical purpose of selecting pupils to take part in musical training (see Shuter-Dyson & Gabriel, 1981 for a review). Tests such as Bentley's *Measures of Musical Ability* showed that most seven-year-olds could discriminate a quarter-tone frequency difference, with gradual improvements with age. More recent studies (Sergeant, 1983; Sergeant & Boyle, 1980) indicate higher levels of performance with different and simpler tasks, whilst research from Germany shows seven-month infants able to make comparable discriminations to adults (Fassbender, 1996). By school age, it appears that very few children are incapable of hearing and detecting differences between musical notes (Mills, 1993). More recent research has begun to develop multi-faceted models of musical ability, accounting for a broader range of skills than the earlier unidimensional models based on perception (Cope, 1998; Hallam, 1998; McPherson, 1995).

² At Keele University from 1 September 2001

Studies from the United States and France indicate that children aged around five years understand diatonic scale structure and by about age eight are sensitive to harmonic properties of tonal music (Dowling, 1988; Imberty, 1969; Krumhansl & Keil, 1982; Zenatti, 1969). This is supported by more recent research in the United Kingdom (Lamont, 1998a; 1998b; Lamont & Cross, 1994). In terms of musical tastes and preferences, different periods of a willingness to accept different musical styles have been found, with phases of 'open-earedness' in early childhood up to age eight years, followed by decreases in acceptance of different styles around ages 13-14, but further increases in adulthood (Hargreaves & North, 1999).

Children's vocal compositions develop during the school years, with structural properties, grouping and gesture emerging between the ages of five and seven (Davies, 1992). The well-known Swanwick-Tillman developmental spiral of children's compositions (Swanwick & Tillman, 1986) indicates four distinct phases of understanding between the ages of three and 15 years: materials, expression, form and value. This model has also been applied to improvisation, performance and listening (Swanwick, 1988; 1994). A similar developmental model, based on listening and generative skills by Hargreaves & Galton (1992; Hargreaves, 1996) shows five different stages of understanding: prefigural or sensori-motor, figural, schematic, rule systems, and metacognitive/professional. Both these models are closely tied to (approximate) ages, the implication being that musical development is normative, stage-based and age-dependent. They also describe rather than explain the progression of musical development (*cf.* Hargreaves & Zimmerman, 1992).

A more recent contextual framework of developing representations of musical pitch (Lamont, 1998b) outlines five different ways of understanding which share many similarities with both Swanwick & Tillman's and Hargreaves & Galton's models. The ways of understanding are: primitive capacities (the neurological bases of musical understanding); a listening grammar, based on the fundamental structural features of the musical system; and figural (based on shapes and outlines), formal (based on abstract properties), and explicit (metacognitive) understandings of pitch relationships and hierarchies within that system. This research was based on studies with over 1,900 British school children experiencing the English National Curriculum for Music and comprises both quantitative and qualitative data.

Progression from primitive capacities to a listening grammar can be hypothesised as due to shared early musical experiences (exposure to music, infant-directed speech and song and early babbling songs). The listening grammar, based on the diatonic scale for Western tonal music, develops into a figural mode of representation through experience with active musical experiences at home and at school. Cross-national studies indicate that this progression is by no means inevitable and may be slow to develop if active experiences with music are not provided (Lamont *et al.*, 1996). Figural modes of representation may persist into adulthood (Smith *et al.*, 1994), but can be supplanted by formal modes of representation if children experience music in a range of contexts (often through choice). This was found in children who opted to participate in school choirs, pop groups, and other collective yet relatively informal types of musical activity. Finally, formal modes of representation became explicit only for those children who experienced formal musical instruction. This framework highlights the importance of individual experience-related changes and of contextual factors in understanding musical development.

The research into musical enculturation suggests the following:

- There are qualitatively different ways of musical understanding in childhood, with four or five different stages or phases shown to-date (each model using different terminology, but with many similarities in what these stages comprise).
- There are 'individual differences' in the patterns of enculturative development, largely resulting from prior experience. No differences are found according to gender, and the models do not

attempt to account for other features like personality types, preferences for types of music, motivation, or learning styles.

- Some models prioritise age-related development, whilst others emphasise experience-related change. In Lamont (1998b), the motivators of progression appear to be based on different kinds of musical experience, which may themselves be linked to individual preferences, leading children to seek different experiences.
- Some aspects of general musical development are likely to be related to other kinds of cognitive development, such as problem-solving and memory span. However, the evidence to-date emphasises specifically *musical* experiences as responsible for enculturative musical development.

In summary, the paths of musical enculturation are shown to be complex and diverse, and the nature of engagement with music seems critical in provoking developmental change. Children are both sophisticated listeners and music-makers from early infancy onwards and the ways that they understand music are constantly evolving. The kinds of music learning subsumed under enculturation are best studied by using techniques and methods that do not require technical expertise, such as listening, rather than more specialised activities such as composing or performing. So far, research has focused on explaining those aspects of normative enculturative development that result from age-related or experience-related changes and has largely ignored more individual characteristics of learners.

Generative Skills

Generative or creative skills in music can be subsumed under the broad headings of performance, improvisation and composition.

There is an extensive literature on the acquisition and development of *performance* skills, much of which originates in the UK (Sloboda, 1982; 1985; 1988; 1994). One strand of research has focused on the role of practice in learning to play a musical instrument (for reviews and a collection of relevant papers see Ericsson, 1997; Hallam, 1997; Jorgensen & Lehmann, 1997). Studies have explored:

- the role of practice in early musical performance (O'Neill, 1997);
- the relative importance of time spent practising, prior knowledge, and musical ability (Gagné, 1999; Hallam, 1998; Howe *et al.*, 1995; 1998; Sloboda & Howe, 1999; Sloboda *et al.*, 1996);
- the length of time musicians playing different instruments spend practising (Jorgensen, 1997);
- the development and utilisation of practising strategies (Gruson, 1988; Hallam, 1994; 1995; Nielsen, 1999; Sullivan & Cantwell, in press; Vacher, 1992);
- the value of playing from memory (Williamon, 1999a) and the strategies adopted to achieve performance from memory in instrumentalists (Hallam, 1997; Williamon, 1999A OR B) and singers (Ginsborg, 1999);
- how interpretation is developed (Hallam, 1995);
- communication in performance (Sloboda, 1983), including the role of movement (Davidson, 1993; 1994);
- planning and decision making (Hallam, 1997; Palmer & van De Sande, 1995; Whitaker, 1996);
- the role of significant others in supporting the development of expertise, e.g. parents (Davidson *et al.*, 1996; 1997; Papousek, 1996; Sloboda & Howe, 1991).

Another strand of research has concentrated on the development of skills in singing (Cooksey & Welch, 1998; Howard *et al.*, 1994; Welch, 1979; 1986; Welch & Murao, 1994; Welch *et al.*, 1997; 1998) and the theoretical underpinnings of this (Welch, 1985).

Some work has explored how the learning of performance skills can be enhanced through the use of reinforcement (Koska, 1984) and different kinds of feedback for both singers (Welch, 1983; 1985b; Welch & MacCurtain, 1986; Welch *et al.*, 1989) and instrumentalists (Irvine & LeVine, 1981; Johnstone, 1993). The roles of modelling and imitation (Dickey 1992; Rosenthal, 1984; Sang, 1987), scaffolding (Kennell, 1989; 1992), mental practice (Ross, 1964), variable practice (Pacey, 1993) and the manipulation of different practice conditions (Rosenthal *et al.*, 1988) have also been explored.

Other research has focused more directly on the role of the teacher in

- (i) influencing the learning process through the ways they think about teaching (Lennon, 1997);
- (ii) interactions with students (Davidson, *et al.*, 1998; Gustafson, 1986; Hepler, 1986; Howe & Sloboda, 1991; Jorgensen, 1986; Mackworth-Young, 1990; Persson, 1994; Weerts, 1992);
- (iii) the teaching strategies that they adopt (Davidson & Smith, 1997; Groeling, 1977; Price, 1989; Tait, 1992; Yarborough & Price, 1989) and
- (iv) their teaching about practice (Barry & McArthur, 1994).

There is evidence that the ratio of teacher talk and pupil activity varies according to lesson activity (Albrecht, 1991), that there are wide differences in pace of lessons and degree of praise (Schmidt, 1989a) and that pupils' characteristics determine the way that these aspects of teacher behaviour are perceived (Schmidt, 1989b; Schmidt & Stephans, 1991). There is also a significant literature focusing on the teaching of singing (*cf.* Thurman & Welch, 2000). There has been research exploring the use of voice leading analysis in string pedagogy and performance in higher education (Mawer, 1999) and in helping students to play by ear (Priest, 1989). By comparison, there has been relatively little research on ensemble work (for a review see Humphreys. *et al.*, 1992), although there has been some research exploring the interactions between conductors and their groups (Carpenter, 1988; Durrant, 2000; Witt, 1986; Yarborough 1975).

Developing ways of helping musicians overcome performance anxiety has generated another group of researches, including a literature offering advice (Bosanquet, 1987; Lehrer, 1987; Salmon & Meyer, 1992; Valentine *et al.*, 1995; Wilson, 1994) and models of performance that set out the complex interplay of factors which may contribute to performance outcomes (Hallam, 1998; Le Blanc, 1994).

Other researchers have focussed on issues of assessment (Elliot, 1987; Johnson, 1997; McPherson & Thompson, 1998; Thompson *et al.*, 1998), assessment of singing (Sergeant & Welch, 1994; Welch, 1994), the Examining Boards (Peggie, 1994) and the role of the graded examination system (Salaman, 1994). In higher education, peer assessment of performance has been explored (Hunter & Russ, 1996).

Recently there have been several surveys which have mapped out the instrumental music teaching systems within which the teachers operate (ABRSM, 1997; Cleave & Dust, 1989; PRS, 1999; Sharp, 1991), the cultures within which they work (Cope & Smith, 1997; Everitt, 1997) and the ethos underlying those structures (Schenck, 1989). The effects of size of class (Jackson, 1980) have been studied and several authors address the ways in which instrumental teachers can integrate their work with class teachers (Bunting, 1992; Hallam, 1998; ISM, 1996; Verney, 1991).

By comparison with the literature on performance, we know much less about *improvisation*, although research is in progress. Studies have explored the processes underlying improvisation (Pressing, 1988, Sudnow, 1993); pupils' perceptions of the differences between composition and improvisation (Burnard, 1997) and ways in which it might be taught and its development facilitated (Bailey, 1996; Booth, 1995; Elliott, 1995; Kratus, 1991; 1995; 1996; McMillan, 1999).

Research on the *compositions* of school-aged children (Bunting, 1987; Kratus, 1989) has increased considerably over the last 20 years. Early studies focused on the process of composition in experts (Bennett, 1976; Sloboda 1985), but the spiral model of musical development proposed by Swanwick and Tillman (1986) - based on a study of compositional skills in children - generated much follow-up work (see Swanwick, 1988). In addition, comparisons of more or less expert composers have been undertaken (Kennedy, 1999; Younker & Smith, 1996) and there have been explorations of assessment (Webster & Hickey 1995), peer assessment (Searby & Ewers, 1996), working with peers (Wiggins, 1994), strategy use in computer-based music-making (Folkestad *et al.*, 1998) and the design of software for compositional use with young learners (MacGregor, 1992).

The research concerned with the acquisition of generative skills has largely been at the level of the group and has not taken into account individual differences, except for age or level of musical expertise. Other differences have tended to be neglected. There is some research on gender issues in the selection of instruments and the motivation to take up an instrument (Abeles & Porter, 1978; Bruce & Kemp, 1993; Davidson, 1999; MacKenzie, 1991; O'Neill, 1997; O'Neill & Boulton, 1995; Zervoudakes & Tanuer, 1994) and the use of technology in music education (Comber *et al.*, 1993). This contrasts with mainstream education where there is an extensive literature exploring the different ways that girls and boys approach learning, undertake homework, interact with teachers, and interact with each other. In music we know very little about these issues.

Research on personality has identified the characteristics of different types of musicians and raised questions about the ways in which musicians' personalities develop (Kemp, 1994; 1996; 1997). There appear to be important differences in the ways in which individuals approach learning to play an instrument (Cantwell & Millard, 1994; Hallam, 1995) and in the ways in which their work is influenced by their cognitive style (Barry, 1992; Schmidt & Lewis, 1987). Relationships between self-concept, motivation (Asmus, 1994, Chandler *et al.*, 1988), attributions of success and failure (O'Neill & Sloboda, 1997), goal structures (Vispoel & Austen, 1993), involvement in music and drop-out (Hallam, 1998; Hurley, 1995) have been explored, indicating that perceived self-efficacy is important in maintaining motivation, but the complex ways in which this may interact with environmental factors and other aspects of the self are not well understood in music. Why for instance do some talented young musicians persist in playing when doing so creates problems for them socially (Howe & Sloboda, 1992)?

Other research has focused on the genesis of musical ability (Sloboda, Hermelin & O'Connor, 1985; Welch *et al.*, 1999; Welch, 2000), its underlying neurophysiological basis (reviewed by Marin & Perry, 1999), the origins of absolute pitch (Crozier, 1997; Sergeant, 1969) and the relationship between music and other abilities (Shuter-Dyson, 1999; Shuter-Dyson & Gabriel, 1981).

Due to recent pressures on the curriculum and fears that music may be marginalised, some researchers have focused on whether music education can be beneficial to learners beyond developing their musical skills. Research has suggested that involvement in music can

- promote spatial-temporal reasoning skills (Rauscher *et al.*, 1993; 1997);
- enhance cognitive development (Altenmüller & Gruhn, 1997; Costa-Giomi, in press);
- develop transferable skills which may raise academic achievement (Harland *et al.*, 1998; Weber *et al.*, 1993; Zulauf, 1993);
- enhance self-concept (Reynolds, 1995; Trust & Oliva, 1994) and
- encourage pro-social skills (Spychiger *et al.*, 1995).

This research has provoked considerable debate (see Overy, 1998; Rauscher *et al.*, 1998; Sharp, 1998). Studies have also explored the effects of background music on behaviour, concentration and academic performance on a range of tasks, with both positive and negative effects (Godwin, 1999;

Hallam & Katsarou, 1998; Hallam & Price, 1998; Kotsopoulou, 1997; Savan, 1998). Psychological (Hallam & Katsarou, 1998) and physiological (Savan, 1998) models of the processes involved have been developed.

Several researchers have concentrated on learners with special educational needs. Much of this work has aimed to facilitate their involvement in music. The literature includes research relating to those with physical impairments, e.g. hearing (Banks, 1986; Dalgarno, 1988a; 1988b; 1989; 1990; Disabled Living Foundation, 1986), vision (Ockelford, 1993; Stimpson, 1995), the mildly, moderately, severely or profoundly intellectually disabled (Dale & Robinson, 1990; Ellis, 1995; 1996, 1997; Ellis & Dowsett, 1987) and also children with specific learning difficulties, e.g. dyslexia (Backhouse, 1994; British Dyslexia Society, 1994; Oglethorpe, 1996) and emotional and behavioural difficulties (Packer, 1987; 1989).

Generally, the research has been undertaken in relation to the development of generative skills within a classical music tradition. There has been almost no research into the development of generative skills in world or popular music, although Cope (1999) describes learning through community-based traditional fiddling. Little account has been taken of environmental factors beyond those of the immediate family, although we know that these are important (Simonton, 1997); and there has been very little UK research on the interface between teaching and learning. Most recommendations about teaching are derived from research on pupil learning, not from direct observation of the processes involved.

Individual differences due to ability, personality, motivation, early musical experiences and family musical background are more visible in this research than in that into musical enculturation, perhaps since generative skills are an area where it is not expected that everyone will develop to the same level.

Future directions

Whilst much attention has been focused on music learners in the past thirty years, research evidence is still patchy. There are only a few empirical models of music learning. More data is required on how learners learn in a wider range of contexts in order to support or revise these models.

The division adopted here between enculturation and generative skills is one found in the literature, with separate research traditions using different paradigms to explore features of each type of music learning, often in isolation. Integrated research is required to span both types of learning in order to be able to interpret the resultant data more fully.

Furthermore, whilst gender, motivation, ability, personality, preference and other aspects of learners as individuals have begun to receive attention in British music education research, these are also often treated independently from one another. There is a need to integrate both research paradigms and research findings to produce some useful and more generally applicable models of musical development and learning.

Whilst we have reviewed here the principal British findings on music learners alongside other key international research, music learning cannot be considered out of context. Any effective model of musical development needs to account for context, from the individual children's personalities, temperaments, characteristics and experiences, through the family, sub-cultural groups and school, to the wider society and ultimately humanity itself.

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SOCIAL GROUPS AND LEARNING IN MUSIC EDUCATION

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Identifying Social Groups

The criteria by which social groups can be identified and distinguished from each other are multifarious, almost always overlapping, and sometimes contradictory. For example, there are criteria concerning economics, such as who owns more or less material wealth; concerning the balance of power, such as who holds what sort of power; or concerning cultural factors, such as who engages in what cultural practices. But economics, power and culture do not fit neatly into separate boxes. Rather they cut across each other, such that some social groups will share certain characteristics in some respects whilst at the same time being quite distinct in other respects. It is helpful for researchers to be explicit about, or sensitive to, the criteria being used to identify the social groups they are researching.

It makes no sense to conceive of social groups as being contrasted to, or juxtaposed with, individuals. Each person is always a member of several different social groups, some of which may correspond with each other, some of which may be conflicting, and some of which may change over time. For example, a person may live in a middle-class family whilst at the same time holding a working-class job; or a person may have mixed ethnicity, but may identify more with one ethnic group than another. Whatever position individuals find themselves in, it is impossible to altogether avoid standing in some relation to social groups. Even a person who is explicitly committed to an extreme individualism has acquired his or her individualist perspective through social interaction, enculturation and membership of a variety of social groups. Therefore, when considering social groups, it is important to examine how individuals negotiate their positions and how they actively construct and define the groups they are in.

How do social groups relate to music?

Musical practices can be conceived of in terms of production (who produces what music), distribution (how music is transmitted), and reception (what people do with music). Social groups can be identified partly in terms of their different musical production, distribution and reception practices. For example, in the case of gender, men tend to be involved in more musical activities than women; in the cases of age and ethnicity, listeners to BBC Radio 3 are nearly all over the age of thirty-five and largely white. At the same time, different musical practices throw up groups that are specifically related to music, such as the group of classical composers, the group of pop singers, the group of radio DJs. As well as musical practices, it is relevant to consider musical tastes and values: for example, how musical tastes and values are constructed, or how groups come to agree upon and to contest those tastes and values.

It is also important to examine individual identity in relation to music in order to understand how individuals negotiate positions for themselves within their groups. There are numerous ways in which musical practices and music itself are used as means for self-interpretation and self-presentation, and there is a growing body of research on the musical tastes of young people as listeners, in terms of how music aids in the formation of individual and group identity (e.g., Behne, 1997; North, Hargreaves & O'Neill, 2000; Zillman & Gan, 1997).

Not only is music a 'mirror' that enables us to recognise aspects of the self, but the specific properties of music also come to represent or transform the image reflected in and through its structures. This contributes to the processes by which individuals are actively involved in constructing and defining the social groups with which they identify themselves.

Research into social groups and music learning

In music education research, more attention has been paid to some social groups than to others. Below, we have provided a brief overview of some of the key points associated with existing, current and potential future research concerning six groups: gender, family, peer networks, social class, ethnicity/religion, and musicians.

Gender

One of the most widely researched of all social groups is gender. Gender issues operate in a multitude of ways in music education. Some key contributions to research on gender and music education were published in 1993 in a Special Feature of the *British Journal of Music Education*. (For recent literature reviews see O'Neill (1997), Maidlow and Bruce (1999).) Areas of UK research which impact most directly on gender and music education include: children's and adolescents' gender-stereotyping of musical instruments and musical styles (O'Neill and Boulton, 1996; O'Neill, North & Hargreaves, 1999; Harrison and O'Neill, in press; Harrison and O'Neill, forthcoming), the use of role models in helping children overcome gender-stereotyped beliefs (Bruce and Kemp, 1993; Harrison & O'Neill, 2000), gendered musical practices such as performance and composition (Green, 1997), and gendered influences on motivation and identity (O'Neill, forthcoming a; O'Neill, Ivaldi & Fox, forthcoming). Within the context of the school, teachers' expectations are very powerfully linked to the same gender stereotyping that boys and girls share. Teachers are aware, for example, that instruments are gendered and that activities like singing in the choir are very highly divided by virtue of gender. Green (1997) makes a number of suggestions for future research which might further our understanding of these issues as well as finding ways to assist teachers and students in overcoming the gender-stereotyped associations that are embedded in our musical practices.

Family

Other social groups which have received considerable attention in relation to music education involve the family and its role in contributing to the learner's environment, acquisition of skill (e.g. Howe, Davidson, Moore & Sloboda, 1995), as well as providing opportunities in terms of instruments, lessons and the negotiation of time to include musical activities (e.g. Davidson, Howe, Moore, Sloboda, 1996; see also critical discussion by Kemp, 1996). However, this research focuses almost exclusively on formal instrumental music training. Although musical practices in the home have been identified as of significance, the interface between what that music experiences mean for young people when they move into different educational/institutional contexts has been largely neglected. It is important to interpret the influence of key social factors such as parental support within an interactional context. What is needed is an approach to research that examines the dynamic processes by which children and parents are mutually active in constructing a relationship and that also incorporates characteristics that are conducive to both positive and negative learning outcomes. Learning outcomes also need to be expanded to include a wider range of possibilities associated with both formal and informal musical activities.

Peers

Research involving peer groups has focused on the social consequences for individuals engaged in music. For example, O'Neill and Boulton found that both girls and boys thought that a child of the same sex as themselves would be liked less, and bullied more, by other children if they played an instrument that was viewed as 'gender inappropriate' (see O'Neill, 1997). These negative peer reactions are not trivial for children. Being subjected to bullying and being low in popularity are two of the most distressing, and potentially damaging, aspects of peer relationship problems that can occur during childhood. Thus, it would not be unreasonable to suppose that children would choose to behave in ways that minimize their risks from such negative reactions from peers. However, peers may also play a supportive and motivational role (for example, many young people engage in music because of the social benefits they derive from social interaction with like-minded peers). Peer groups have also been studied in terms of competitive versus cooperative environments. For example, in a recent study conducted by O'Neill (1998) at a specialist music school with young people aged between 11 and 16, it was found that the highest achievers at the school were far more likely to report that their peers played a key role in terms of support and encouragement, whereas the 'average' achievers found their peers to be highly competitive and lacking in support.

Other important areas of research involving peer groups in music education are associated with the ways children interact during musical activities. For example, Morgan (1998) studied the ways in which children interact while engaged in classroom composition activities. Research by Burnard (1999) also considered the way young people interact when composing and improvising in a non-evaluative environment.

Social class

In the late 1970s and eighties research suggested that schools were tending both to explicitly and implicitly place a higher value and status on classical music, whilst at the same time, giving popular music a prominent place on the curriculum (Vulliamy, 1977a; 1977b; Green, 1988). In general, middle-class pupils were more encultured into classical music by their families and also had more opportunity to take classical instrumental lessons. Therefore, one effect of the higher educational status being placed on classical music was to reproduce a social class division by rewarding middle class children for achieving what was taken to be music educational success, without considering that the measure of success was itself already highly informed by middle class values. Music educational success was, therefore, intrinsically linked to the reproduction of social class.

Since then, the position of popular music in schools has altered radically. Current research (Green, forthcoming) suggests that teachers now view 'world music', popular music and classical music as of much more equal educational value. However, very little research has been published in the last twenty years on either the social class demarcations of music educational success, or the social class repercussions of the changes that have occurred in curriculum content.

Ethnicity/religion

Although a large amount of research has been undertaken on the learning methods of various ethnic groups around the world, relatively little investigation has taken place concerning the relationships of different ethnic/religious groups to formal music education in the UK. The national curriculum makes it an entitlement that all children should compose, perform and listen to music, individually and in groups. Yet in some families from certain ethnic/religious backgrounds such musical engagement is problematic. For example, some Muslim families disapprove of girls and boys making music together

in the same room; or even making music in single-sex groups (Halstead, 1994). Although ethnic diversity has been addressed in curriculum development by, for example, the introduction of 'world music', a related research area that has not yet received the attention we feel it deserves concerns whether world music in the curriculum tends to increase inter-racial tolerance, as is often claimed anecdotally (see Green 1999a).

Musicians

Different musical worlds exist - such as the classical, jazz, popular or folk worlds - often with little or no overlap between them. Musicians who produce these different styles of music tend to go about acquiring their musical skills and knowledge in ways that are quite distinct from the traditional methods of formal music education. Popular music, jazz, traditional and folk music from all over the world have entered the school in a significant way recently. But given the different learning methods involved in the acquisition of skills and knowledge in those styles, we need to ask whether the school is a place that can or should attempt to authentically replicate those learning methods, and we need to examine the extent to which the differences and the connections between different musical styles are reflected in formal education. Research in this area is really only just beginning (see Green, forthcoming, Green 1999b, and the section on ethnomusicology in this article), as is research on the relationship between listening groups and formal/informal forms of music learning. This work has important implications for the content of the music curriculum, teaching strategies and equal opportunities.

Conclusion

We have isolated various social groups in order to look inside them and examine some of their functions and processes, as well as the implications that these groups have in relation to music education. This has also been the trend for most of the theoretical and empirical research in music education to date. Isolating and defining social groups not only reflects the common methods available to us in order to study social phenomena based on established practices in different disciplines (for example the attempt to establish general laws about human behaviour). It is also a reflection of the established norms and practices in our society and culture which identify and distinguish between social groups economically, politically, and in terms of shared meanings and values.

The isolation of these groups can appear artificial and arbitrary. Much more work is needed which revolves groups around each other. For example, we know that pupils are differentiated according to gender; but what happens when you combine gender with, for example, social class? Do middle class girls and working class girls behave differently in relation to music? We know the family has a profound influence on children's musicality, but what happens when we throw ethnicity in? We know of no research in this area which distinguishes between gender and different social classes, or between families of different ethnic origins.

Whilst research needs to take into account the complex combinations and changing nature of social groups, this is easier said than done. Individuals are embedded in a complex web of social groups which are dynamic and fluid. Most of us are not aware of the fact that our musical activities are totally enmeshed in a social and cultural world. Our engagement with music leads us to 'forget' the grounds on which our behaviour is based. Each person's relationship with music is subject to a 'taking-for-grantedness', such that our musical practices, tastes and values have become routine and invisible.

In addition, many of the established methods we have available in research are not sophisticated enough to deal with the complexity involved, leading to criticisms of reductionism – the idea that a complex system can be fully understood by analysing it into isolated parts or simple concepts. There are many examples of research where this approach has been useful, but it remains relatively ineffective in explaining social phenomena.

One way forward is to make more use of case studies or idiographic approaches to research. Case studies have been a key feature of research in education for a long time, but have been less prominent in the study of music education and social factors. The subjective experience of individuals represents all the complexity associated with being ‘temporally embedded’ in a social world. Understanding the impact of the full set of social experiences across the whole life of any particular individual cannot be captured through any other method than an exploration of individual subjective experience. But at the same time, the further we examine the individual, the more we understand about social phenomena in the sense that we can only recognise an attribute if we possess the appropriate concept, and in principle every concept is capable of general application.

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MUSIC IN SCHOOLS

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Music's location in the school curriculum has been bitterly contested over the years. This section presents some of the major controversies relating to the debate within a research perspective. The following aspects will be considered: (a) historical perspectives of the National Curriculum for Music and (b) music teachers, music teaching and assessment. Suggestions will be offered for future research.

Historical Perspectives

According to the pupils surveyed in the Schools Council's report *Young School Leavers* (1968), music was judged to be an irrelevancy in their school experience. The Council's Music Committee had been established the previous year and its first report addressed the issue head-on (Schools Council, 1971): music teachers needed to develop new ways of working. As an exemplar, the report pointed to the work of the North-West Regional Curriculum Development Project (NWRCDP). This large-scale project (supported by the Schools Council) developed a collaborative partnership mode of research between teachers, researchers and Local Education Authorities (LEAs). The music panel met between 1967 and 1970 and its report was published as *Creative Music and the Young School Leaver* (NWRCDP, 1974). It described work in the classroom that utilised simple instruments, based upon a growing interest in the creative aspects of music making.

Two subsequent major Schools Council music projects built upon this collaborative model. In the published report of the project *Music in the Secondary School Curriculum* (Paynter, 1982), based at the University of York between 1973 and 1980, John Paynter, the project director, was fairly reticent about its claims. It did *not* try to discover a 'better' way of teaching music. Instead, it attempted to promote discussion on the role of the music curriculum; descriptions were offered as examples only. Its adoption of a dissemination strategy suited its aim to take note of, and learn from, many different trends in class teaching. But there is no doubt that, in the tradition of Paynter's own key text *Sound and Silence* (Paynter & Aston, 1970), the heart of the project lay in the conviction that the principal characteristic of artistic experience was its creative element. This more than anything else was the *raison d'être* for music's place in the curriculum.

The objectives of *Music Education of Young Children* (Thackray 1974), based at the University of Reading between 1970 and 1977 were: to increase our understanding of how children learn in music, to clarify and define aims of music education in nursery and primary schools and to produce information, materials and guides that may help teachers in schools. It developed a particular focus on providing help for non-specialist teachers to teach music literacy. The project's published output culminated in *Time for Music* (Schools Council, 1977/78), a series of elaborate classroom kits, designed for the use of generalist teachers teaching music in primary schools.

During the 1980s, the York Project exerted a continuing influence (Adelman & Kemp, 1992). The dissemination centres that arose from it were influential in preparing teachers for the arrival in 1985 of the new General Certificate of Secondary Education (GCSE) in which composition, performance and listening were equal components of the curriculum.

Two texts from this period were particularly important because they attempted to systematise the growing interest in classroom composition. Swanwick's *A Basis for Music in Education* (1979) advocated the centrality of 'composition, audition and performance' in the music curriculum, whilst Swanwick and Tillman's (1986) paper titled *The Sequence of Musical Development: a Study of Children's Compositions* offered an explanation of compositional development.

A parallel strand of interest had been developing in popular music in the classroom, stimulated by Swanwick's book, *Popular Music and the Teacher* (1968). Subsequently, there was a fierce academic debate between Swanwick and Vulliamy and Shepherd (see Vulliamy, 1977; Vulliamy & Shepherd, 1984; Swanwick, 1984). All three wanted a curriculum that was more inclusive of popular traditions. What was contentious was the degree to which music was believed to be socially determined and culturally embedded.

There was also a developing interest in the music of different cultures. The ethnomusicologist, John Blacking, gave this movement momentum (Blacking, 1987) and played a central role in the Arts Education for a Multi-Cultural Society Project (AEMS), whose music report (1989) attempted to reach a consensus on the nature of a music curriculum for a multi-cultural society. During these years, there were early attempts to secure a place for Indian (Farrell, 1986) and West African (Kwami 1986, 1991) musics in the curriculum.

All these developments culminated in the proposals for a National Curriculum for music which eventually coalesced in England into linked Attainment Targets in composing and performing, listening and appraising; Wales kept to the three areas of composing, performing and listening (*cf.* Pratt and Stephens, 1995). As with many other areas of the curriculum, the preceding debate was politically charged (Gammon 1999). For Shepherd and Vulliamy (1994), the nub of the controversy was encapsulated in the phrase 'the struggle for culture'. Their view was that the Thatcher government were attempting to renegotiate central cultural values and, in particular, to relegate notions of relativism to the past. But for Cox (1993), the issues had historical continuities with perennial concerns about the justifications for music, the technical/aesthetic divide, cultural diversity, and the low status of music as a school subject.

It was left to Ross (1992) to express scepticism about music's achievement in finding a place in the National Curriculum. He believed that music should have joined collectively with 'the arts' instead of defending its own interests: "It is difficult now to imagine where any challenge to orthodox music and art...is to come from" (*op.cit.* 173).

Music Teachers and Music Teaching

Research into the preparation of specialist music teachers for secondary and primary schools, as well as the pre-service music education for primary generalists, has been limited. In 1986, Cleave and Sharp undertook an investigation of Arts preparation in Primary initial teacher education (ITE) courses in England and Wales. The survey of 74 institutions found great diversity in the quantity and quality of provision for music as well as for other art forms, although art and music were relatively better resourced than dance and drama (Cleave & Sharp, 1986). Tutors were concerned to address students' lack of confidence and poor attitudes towards the arts. The greatest obstacle to positive outcomes from courses was felt to be the lack of good models of teaching in those schools where students had practice placements. Inadequate resources, coupled with too little time and a lack of expertise to draw on, were commonly cited as contributors to weaknesses in provision. *The Disappearing Arts*, a report published by the Royal Society of Arts (1998) reported a deteriorating situation: ITE programmes were found to be cutting back on arts specialist courses, reducing hours for arts generalist courses and losing vital resources.

Mills (1989) investigated the issue of confidence and found that, amongst primary student teachers at Exeter University, music was the subject that they were most anxious about. Research into the effectiveness of arts courses in primary ITE (Hennessy *et al.*, 1999) showed that students believe that the most influential factor in developing confidence is the support and encouragement of the class teachers that they work with on practice placements. A major difficulty for music is that it is still the

arts subject in primary schools that class teachers are most likely not to teach and is often in the hands of 'specialists' who may be reluctant to relinquish their grip.

Music in primary schools has been most affected by the 'music for all' movement. This argued that all class teachers should at least teach music to their own class. A principle way to implement this idea was, and still is, through using music specialists as consultants, usually in their own schools. Allen (1988, 1989) investigated the extent to which the claims made for music consultancy could be substantiated by empirical evidence. As consultancy is designed to change attitudes and practice amongst staff, certain favourable conditions need to be in place. Despite the very convincing arguments in support of the approach (equity of provision, better continuity, better match of teaching to learners and greater curriculum integration), Allen's research was not able to provide any conclusive evidence of its efficacy in the sampled schools. Her conclusion was that consultancy does have the potential to improve the quality of music education, but the conditions in which it can succeed are still greatly dependent on the skills of the 'consultant' and on a climate that is conducive to professional development.

Reviews of inspection findings from the Government's non-ministerial department charged with quality assurance in schools and teacher education, the Office for Standards in Education (OfSTED), continue to endorse a 'music consultant' approach. Over a 7-year period between 1982-89, covering 285 Primary schools, it was found that 'music-making of quality was better developed where there was at least one teacher with sufficient expertise...to give leadership in the school' (HMI 1991). In 1993/94 (OfSTED, 1995) it was reported that the majority of classes observed were taught by the class teacher and 'the standards achieved ...are satisfactory or better in 96% of KS1³ and 75% of KS2 lessons'.

The 1992 implementation of the statutory curricula for music prompted an early study by Lawson, Plummeridge and Swanwick (1994) that focused on primary schools and the issue of teacher resources. It was reported that only a small number of schools (out of 39 in all) had a comprehensive scheme of music education in place for all children. Teachers were reported as feeling overwhelmed by the statutory requirements.

The National Curriculum (NC) has been accompanied inevitably by official monitoring and inspection, which has led to a particular kind of evidence being available. The nature of inspections gives rise to large amounts of 'snapshot' evidence that may well distort our knowledge of what is going on, both in quality and effectiveness.

Janet Mills HMI has contributed several articles based on inspection findings (Mills, 1994; 1996) and reported that, in the first year of the NC's introduction, lessons in primary schools were better than teachers expected, and significantly better taught than those in other subjects. However, music in Year 7 (the first year of secondary schooling) was significantly worse. The issue of the dip in quality and engagement at KS3 (11-14 age range) remains. Mills (1996) described a range of unsuccessful approaches adopted by secondary teachers with new Year 7 classes. She concluded that links between primary and secondary schools needed improvement to foster continuity and higher expectations and that planning needed to be diagnostic, differentiated and demanding.

In *The Arts Inspected* (1998) Mills presented case studies reflecting good practice in teaching and identified features which characterise it: high expectations, direct instruction, verbal analysis, the elicitation of demonstrations and overt encouragement. The inspection findings also revealed a low

³ Primary education 'key stage' are: KS1 = Key Stage 1 (5 to 7 years); KS2 = Key Stage 2 (7 to 11 years)

uptake of GCSE (General Certificate of Education, normally taken at age 16) and a detachment of much A (Advanced) level teaching (at age 18) from the practical and creative continuum through key stages 1 to 3. Models of 'good practice' are seen as a useful way to encourage teachers to reflect on and develop their own teaching, although criteria for what constitutes good practice are often assumed rather than discussed or made explicit. However, even here it is not clear how successful this strategy has been in achieving the desired aim of dissemination and development.

There is little research concerning music teachers. What there is presents contrasting evidence. Drummond's (1999) study of music teachers in Northern Ireland reports that teachers were not always very committed to non-examination work and often considered extra curricular activity more important. Cox's (1999) study of a small group of music teachers in the south of England found a more positive picture in which, despite the expected problems of overwork and lack of career structure, teachers were favourable about the effects of the NC. Low status was compensated for by the personal reward gained from music making with young people and by being able to influence positively the ethos of the school community.

In searching for evidence of recent research on pedagogy, it was surprising to find not much of real substance. A research project currently underway is investigating how teachers teach composing (and in particular the value of keyboards) and their students' views of what constitutes progress (Odam & Paterson, 1999). Bunting (1986) used case studies (pupils following a GCSE music course) to investigate the musical thinking that took place during the composing process and the role of the teacher. He identifies the need for a balance between 'instructor' and 'mediator' and wrestles with the problem of ownership.

The teacher's role is rarely the focus of attention in music education research. Similarly, constructivist views of learning appear to have had less impact on the teaching of music than other curriculum subjects (*pace* science education). The teaching of composing at all levels has demanded a radical rethinking of the teacher's role in interacting and guiding the process. Harrison and Pound (1996) looked at the value of improvising with primary teachers and their pupils. They report that teachers needed help with 'intervention strategies which would promote musical development while preserving (the) freedom to improvise'. There is some literature aimed at developing thinking in this area (Hennessy, 1998), but no published empirical research. Such research could contribute usefully to our understanding of the relationships between learners and between learners and teachers.

Assessment

In 1977, the Assessment of Performance Unit (APU) set up an 'exploratory group' to consider 'new ways of measuring pupil progress in the arts' (APU, 1983). At the heart of the discussion lay a fundamental question of whether it was desirable or feasible to assess aesthetic development. In the final report, the focus is on 'artistic' rather than 'aesthetic' development and a framework for assessment is proposed which identifies four distinct factors: knowledge of contexts, facilitating skills, artistic appraisals and valuing, which would interact with the three possible roles of the learner: former (composer), performer and audience. Composing has gained a more central position in the curriculum since then and there has been an ongoing need to develop this early work.

The assessment of performance has always been considered as posing fewer difficulties for music teachers than composing or listening. Graded examinations designed and administered by the colleges of music (most notably the Associated Board of the Royal Schools of Music (ABRSM)) still have a powerful influence on the public's and the profession's attitude towards, and understanding of, what constitutes musical achievement. In many respects, their control and influence have contributed to a fixation with performance and its measurement. However, the advent of GCSE has broadened the scope of assessment in performance.

Assessing composition still poses difficulties. Teachers at all phases of education have had to learn to assess an activity of which they themselves may have had little experience or understanding. The concern is with the tension between the assessment of action and the assessment of learning. The work of Swanwick and Tillman on creative development (1986) generated a particular set of assessment criteria which, it was argued, could be applied to assessing musical cognition 'whatever the specific activity' (Swanwick 1999).

Through a substantial body of research carried out in England and overseas, Swanwick (1979, 1994) arrived at an alternative model that identified 'layers' of musical understanding rather than descriptions of activity, namely:

- awareness and control of sound materials;
- awareness and control of expressive character;
- awareness and control of form;
- awareness of the personal and cultural value of music.

He argued that teachers should be focused on the 'formative here-and-now of musical quality and integrity' rather than the 'summative concerns of range and complexity'.

Appraising was the focus of research by Huddersfield University's RAMP Unit (Flynn & Pratt, 1995). Through analysis of a group of primary teachers' own practice and evidence from their pupils, they arrived at nine statements that categorised different kinds of appraising activity. These included all manner of music making activities as well as listening as an audience.

One of the issues of assessment has been the difficulty of describing music and musical behaviour in non-specialist language. This is important for both formal assessment and for the 'in flight' transactions and conversations that teachers need to have with children whilst they are working. Mellor's research (1999) suggests that an approach which focuses on personal values rather than 'objective technical responses' may lead to teachers being 'more able to hear what young people have to say about their musical experiences'.

With reference to Schon's notion of the 'reflective conversation' (1983) and a theoretical framework adapted from the work of Harre (1983), Ross *et al.* (1993) investigated the potential for arts teachers to engage their pupils in conversations in order to 'explore and elicit aesthetic understanding'. The project provided enough evidence to conclude that there is the potential for this approach, not only to help teachers, but also to allow pupils to become 'reflective practitioners' in their own right.

It can be seen that, in recent decades, some important and influential work has been done, but there are still substantial tracts of land only superficially charted. In the absence of substantial independent research in these areas, the work of centralised, politically driven, inspection findings are in danger of going unchallenged and their criteria for evaluation uncontested.

Conclusions

It is frustrating that, some years after the introduction of a new statutory curriculum, we are still left with disappointing accounts of music in schools from the pupils' point of view (*cf* Ross & Kamba 1997; Harland *et al.* 1995). We suggest three avenues for future research that might help develop a more vibrant music education within schools:

- longitudinal, qualitative studies to discover what impact recent and current practice has on children's learning in music;

- independent research to validate, evaluate, or challenge the effectiveness of the pre-service preparation and continued professional development of music teachers;
- the systematic evaluation of curriculum innovations, such as the use of ICT (see *British Journal of Education* 14(2), 1997) and world music in the curriculum.

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ETHNOMUSICOLOGY AND MUSIC EDUCATION

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Introduction

Viewing music education from an ethnomusicological perspective suggests not only a cross-cultural approach to the materials of music teaching, but also a broader definition of the term 'music education'. From this standpoint, music education refers to the wider worlds of music learning that take place in formal and informal contexts. It is not limited to school teaching, nor other institutionalized settings. Significantly, perhaps, there has been little ethnomusicological research on institutionalized music education, although there is a voluminous literature on the processes of learning music in the world's cultures. In the last two decades, the main points of contact between music education and ethnomusicology have been through the development of teaching materials on world music and studies into the cognitive processes of music learning. This section highlights the type of studies undertaken on music learning in the field of ethnomusicology and how ethnomusicological theory and method may fruitfully inform music education research.

Terminology

At the outset, when we speak of ethnomusicology and music education some attempt at clarity of terminology is required. Ethnomusicology is a much maligned and, generally, misunderstood term that is often denounced as colonialist or even racist in its implications. However, the term does not mean the study of ethnic music - whatever that is, for self-evidently all music is ethnic music of some kind - but rather the ethnographic study of music, or the ethnographic perspective on music studies. Although ethnomusicology may appear to the outsider as the study of strangely exotic musical systems, it is primarily the study of music in culture and as culture. As such, it is often the detailed study of music *learning*, or to put it another way, of music education, in the broadest sense of the term.

Music Education and Ethnomusicology in the UK

Patricia Shehan Campbell began a review of Therese Volk's *Music, Education, and Multiculturalism* in the journal *Ethnomusicology* with these words:

'In the flood of public school music practices in this century, perhaps no other tidal wave trend has been as significant as multi-cultural music education... Multicultural matters loom large in music education practices today, relative to both the musical repertoire for performance, listening and analysis as well as the curricular approaches that frame its transmission and acquisition in schools.' (1999, p 358).

She is speaking of the North American public school system. The picture that she draws of the unstoppable rise of world music in schools may not be so familiar to British music educationalists. One possible reason why world music in American schools has had such a high profile is undoubtedly due to the position of ethnomusicology as an academic discipline at North American Universities. Leading American ethnomusicologists such as Mantle Hood, William Malm and David

McAllester have also been proponents of multicultural music education. Bruno Nettl even applied ethnomusicological method to the study of a mid-Western music school with interesting, often amusing, outcomes (Nettl 1995).

The situation in Britain is somewhat different, both for ethnomusicology as an academic discipline and for its relationship to music education. Although modules on aspects of 'world music' appear in a number of music curricula at British universities, with tuition on instruments such as the *tabla*, *sitar* or *gamelan* becoming increasingly evident in schools and colleges (Farrell 1990, 1994; Sharp 1991), the presence of ethnomusicology as a clearly defined discipline within the education system is still relatively rare. Ethnomusicologists are just as likely to be located in departments of social anthropology as music, as was Britain's most eminent and influential ethnomusicologist, the late John Blacking at Queen's University, Belfast. However, there is little ethnomusicological research undertaken in Britain that deals directly with music education in schools or children's music in general, despite Blacking's support for, and interest in, multi-cultural education in schools and his classic work on Venda children's songs (Blacking 1995).

If ethnomusicologists in Britain and elsewhere have shied away from analysing music learning in schools and other institutionalized settings, it is probably precisely because they feel that this is essentially the domain of music education research. However, it is possible to argue that, in fact, there are a number of crossover points between ethnomusicological method and music education research that have been explored by some researchers and may be fruitful to explore further.

It is necessary to make a distinction between possible connections of ethnomusicological method with music education research and the large body of existing work on the preparation of teaching materials for multi-cultural educational purposes. In this latter field Britain is particularly rich, with a wide variety of work published in the last two decades on the musics of Africa, the Indian Sub-continent, the Caribbean and many other musical cultures. The production and publication of this work has been motivated by the generation of wider educational policies related to ethnic communities in Britain, particularly since the Swann report of 1985, *Education for All*.

Teaching materials on World Music

The preparation of musical materials on world music for schools has been an interesting point of contact for many years between ethnomusicology and music education. It is precisely because of the number of complex issues involved in such ventures that differing types of expertise with their own methodologies and procedures are required, drawing upon a number of specialist fields of enquiry.

Inevitably, the expert knowledge on world music is in the hands of the practitioners of that music. The in-depth academic/theoretical framework for the explication of the music in a wider educational sphere is the province of ethnomusicologists. How is the gap to be bridged between such specialist realms of knowledge and the school or university classroom? This in itself is a question for ethnomusicological enquiry that has been addressed by Sorrell on gamelan (1982), Kwami (1995) on West African music, Farrell on Indian music (1990; 1994; 1997) and Wiggins on World Music in schools (1996).

One common approach taken by ethnomusicologists in collaboration with music educators has been to accept the limitations imposed by institutionalized music teaching environments and to extract the purely *musical* elements from a number of musics for use in schools, whilst acknowledging that the cultural context is different and impossible to recreate in such situations (Wiggins 1993; Burnett 1993; Jones 1995). The problems of the 'music only' approach are all too clear and may be broken down into three main areas:

- *Representation*: many of the musics taught within a multicultural context are either orally transmitted or use unfamiliar notational systems. This causes real, sometimes insurmountable, problems of musical translation.
- *Context*: it is a central tenet of ethnomusicology that a great part of the meaning of music is located within its cultural context. This cannot be understood by focusing on purely musical elements.
- *Knowledge*: often those teaching music in schools have, at best, only partial knowledge of musical systems outside Western cultures.

Ethnomusicologists' approaches to music education may, therefore, have to proceed from different principles and eschew the role of simply being partners in providing musical samples from other cultures for re-translation in the educational context.

Some examples of the connections between informal, formal and community musical education systems come from the findings of recent research into South Asian music in Britain by City University and the University of Surrey Roehampton - a research project that deliberately linked methodology from ethnomusicology and music education (Farrell 1998; Farrell, Welch, & Bhowmick 1999; 2000). The data from this research has demonstrated that a complex continuum exists between informal music learning, community music learning and schools. The data were collected by a methodology that was essentially ethnomusicological. However, its analyses may provide insights into ways in which more effective multicultural music education may be achieved.

Music Cognition

The final connection of note between ethnomusicology and music education research is in the area of music cognition. In recent decades, ethnomusicologists have shown an increasing interest in the cognitive processes of learning. This is evident in several studies by British ethnomusicologists, such as Baily's work on spatial thinking on Afghan lutes (1977; 1985), Kippen's work on tabla (1988) and my own work on representational systems in Indian music (Farrell 1997b). Aspects of this kind of research have direct relevance to a deeper understanding of the way in which musical material is processed and learned, whether in the classroom or outside, it is of direct relevance to music education.

Conclusion

Any exercise in mapping music education research in Britain in relation to ethnomusicology would, therefore, focus primarily on three areas:

- materials developed for intercultural music teaching;
- the connection between community music and formal music education;
- ethnomusicological studies with direct relevance for the teaching and learning of music.

Ethnomusicological method with its emphasis on qualitative rather than quantitative data is in many respects ideal for translation into music education research. Undoubtedly, there are many other areas where ethnomusicologists and music educators may and should collaborate.

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As with other areas of the curriculum, effectiveness derives from teacher expertise in having an appropriate knowledge of the subject (in this case, music, or musics), an understanding of how pupils learn and an ability to manage learning in a particular context. Yet, where this is not the case, the underlying reasons are likely to include one of more of the following:

- pre-service teacher education has insufficient time available to ensure that student teachers engage with the available research literature (Rogers 1998);
- music curricula design are rarely informed by research data;
- the research activity of university-based researchers is often (a) distanced (literally and often metaphorically as well) from the real world of the class music teacher and (b) often constrained in its scope by time and financial resource;
- the ongoing conservative influence of music conservatoire curricula that have remained largely untouched by pedagogical innovation (Davidson & Smith 1997);
- limited formal musical knowledge and skills amongst elementary teachers;
- an uneven research literature of how children learn and develop musically, in which normative data often have to be inferred from many small-scale studies because of the relative lack of longitudinal evidence, particularly in relation to the effects of schooling on musical development.

Furthermore, the 'knowledge explosion' in educational research (including that concerning music education) with more journals, articles, books and conferences, has made it increasingly challenging for teachers (and academic researchers) to keep 'up-to-date' with the latest developments.

The situation is not necessarily better for the specialist music teachers in the secondary schools. In many parts of the UK, their customary pre-service teacher education route is often conservatoire-focused with relatively little emphasis on pedagogy until the final phase. So, although these teachers may be better prepared in terms of their musical knowledge, they need not necessarily be better than their elementary colleagues at the actual process of teaching.

Part of the solution, therefore, would appear to be to link experienced researchers more closely with experienced practitioners to create a symbiotic research environment. The expertise of each would inform the activities of the other. There is some evidence that this is already happening through the growth of interest in postgraduate music education, with an increasing number of courses on offer across the UK. Furthermore, academic researchers are now more aware of the need for ecological validity in their research and for the proper accounting of educational context. Recent examples from the music education research literature embrace such concepts 'situated cognition' (Folkestad 1998) and socio-cultural 'reproduction and transformation' (*cf* Welch 2000), as well as an increased interest in social-psychology and cross-cultural and interdisciplinary studies. There has also been a greater emphasis on peer and parental influences through case studies, action research, and data that are grounded in topical educational realities.

Although researchers have spent many years charting musical development in young children through to adolescence, collectively at best this only provides a picture of 'what is' rather than 'what might be'. We can speculate that, if the overall quality of music education were much higher (at home as well as at school), developmental 'norms' would need significant adaptation. Indeed, there is some evidence from examples where the particular pedagogical strategies are integrated with curricula (such as with the Suzuki method) to suggest that young children are capable of relatively accomplished musical behaviour in optimum conditions. Often, however, weaknesses in music

teaching will limit pupil's musical development and create a self-perpetuating situation in which restricted educational competence, vision and goals lead to a confirmation of musical self-incompetence (at least in relation to formally assessed musical behaviours).

It is important for teachers and university researchers to remind themselves that curriculum and pedagogy are contested concepts. So also is research (*cf* Guba & Lincoln, 1998; Thomas, 1998; Bridges, 1999). Despite the comments of politicians, there are no absolutes in educational practice, nor are there in research. Nevertheless, the above 'map' indicates that we have a much clearer idea of our understanding of musical development and the contexts in which it takes place. We are also becoming clearer about the existing gaps in our knowledge.

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