Sounds of Intent

The "Sounds of Intent" project was set up in 2001 to investigate the musical development of children and young people with profound and multiple learning difficulties (PMLD). The project was a joint initiative by the Institute of Education, University of London and the Royal National Institute of the Blind, growing out of earlier research that examined the provision of music in special schools in England for children with complex needs. (Promise: The Provision of Music in Special Education.) While the Qualifications and Curriculum Authority had been putting some effort into devising a music curriculum for pupils with learning difficulties (as part of the so-called 'P'-levels), it seemed that their work was not based on music-developmental research. For example, references in the 'Performance Descriptions' for music appeared to be largely anecdotal and often used music and sound as means to different ends, such as fostering communication or encouraging movement. Although music indisputably has a vital role to play in promoting wider development, we believed that a curriculum for music should principally be informed by how children develop *musically*. For sure, once this was properly established, it would be valuable to try to 'read across' to other areas of learning, but in our opinion such efforts would be more secure and, ultimately, more helpful to teachers, therapists and carers, if music development in its own right was better understood first.

Taking a fresh look

So, we decided to take a step back and have a fresh look at the children themselves, both through our own eyes and through those of a group of practitioners currently active in the field - both non-specialists and specialists in music. Over a period of two years, we observed each other's work in the classroom and analysed video-recordings of the children in detail. We carefully noted their actions, responses and interactions, and tried to gauge which were representative, exceptional or in any way indicative of musical attainment or progress. Emerging ideas were used to inform and analyse a new developmental model that continues to evolve in response to new findings and suggestions from the group and others, as it becomes more widely known.

Findings

We considered our findings in two ways. Firstly, we kept in the back of our minds contemporary research as to how musical development 'typically' occurs - which we recognise may (but need not) be the same as, or similar to, the development of children with profound needs. Second, we thought how we all typically 'make sense' of music, using a new theory from the field of cognitive science, and considered to what extent this may be relevant for young people with profound and multiple learning difficulties (See References below.)

On the basis of this diverse evidence - direct and indirect - our current thinking is that the key stages in the recognition and understanding of musical structure by

children with profound and multiple difficulties may be summarised as follows:
a) a developing awareness of sound (including musical sound)
b) a developing awareness of the *variety* of sounds that are possible
c) a developing awareness of simple patterns within sound brought about through repetition or variation, whereby sounds seem to form coherent clusters or streams ('groups')
d) a developing awareness that groups of sounds may themselves be repeated or varied, and thereby have a sense of connectedness.

In terms of their emotional response to music, it seemed to us likely that children with profound and multiple learning difficulties would react to the basic qualities of sound (high/low, loud/soft, quick/slow, and so on) in the same way as children who were chronologically in the first few months of life - reactions which seem to stem from features of the mother's voice. However, as the children's awareness of how sound is structured in music develops (as in bullet points c and d above), we felt that their capacity to respond to it may evolve too. Hence, young people with PMLD may be able to anticipate changes in loudness, tone-colour or pitch, for example, from previous hearings and relish the feeling that having their expectations fulfilled can bring.

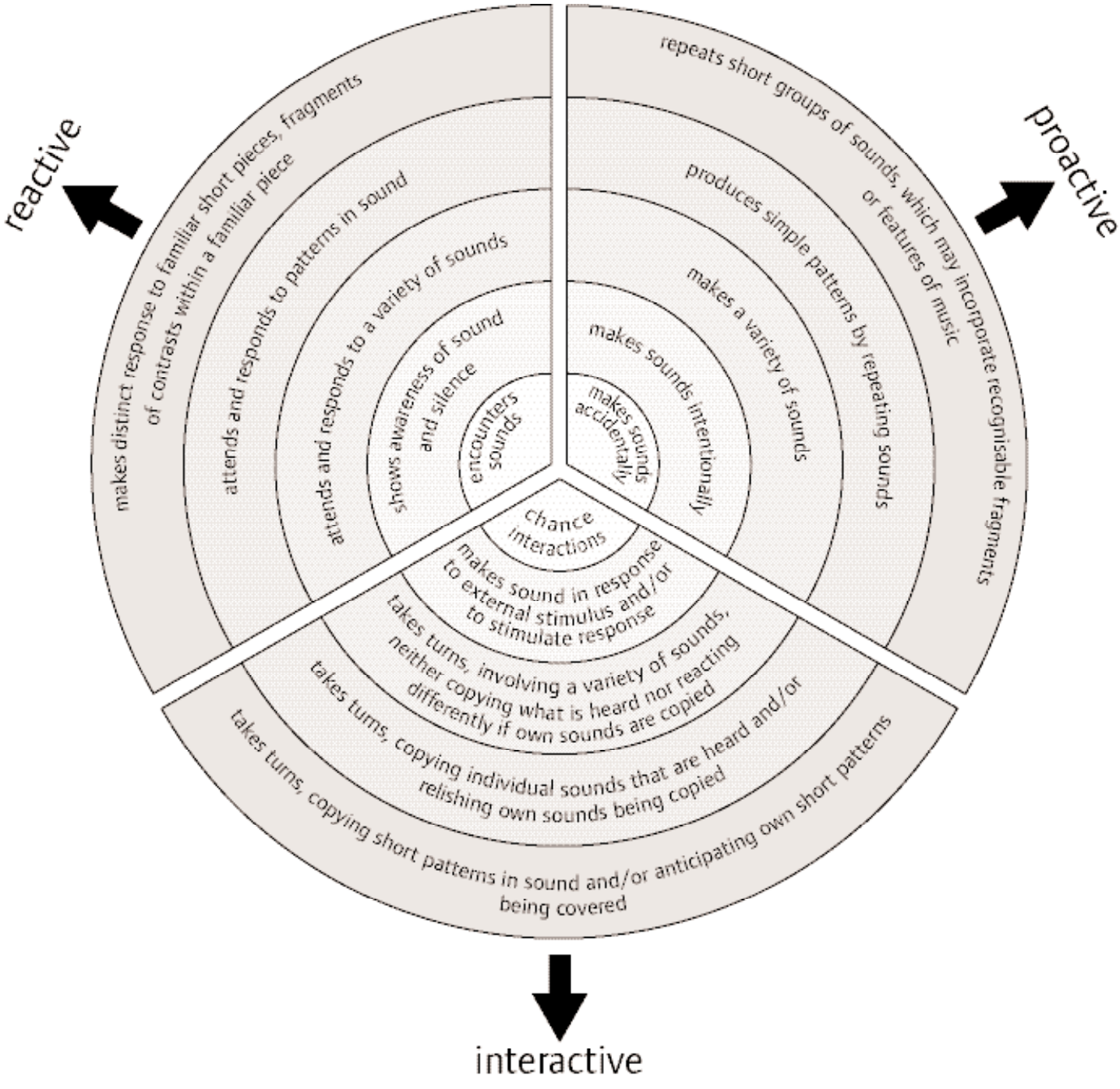
Charting musical development

In more detail, we were able to chart musical development for children with profound and multiple learning difficulties as follows. At first, children encounter sounds with little or no understanding of what these sensations mean, how they are caused or how they may be elicited; interactions with others in the domain of sound and music may occur - but only by chance. Second, there may be an emerging sense of awareness of sound and silence, and intentionality in the production of sound, which may be made in response to external stimuli or, in turn, used to stimulate a response. Third, children may attend and respond to a variety of sounds; they may be able to make a range of different sounds (or cause them to be made), and they may take turns without copying what is heard or noticing if their own sounds are copied. Fourth, children may recognise and respond to simple patterns in sound - straightforward repetition and variation that may enable them to anticipate what is coming next. They may produce simple patterns by deliberately repeating or varying the sounds they make, and they may take turns, copying individual sounds that they hear and relishing their own sounds being copied. Fifth, children may respond distinctly to familiar short pieces, fragments or features of music, and may be able to anticipate clearly set out contrasts within them. They may be able to repeat short groups of sounds, which may incorporate recognisable fragments or features of music that they have heard. They may take turns in copying short patterns in sound and anticipating their own short patterns being copied.

Devising a framework of musical development

In the course of our research, we considered various ways in which proposed patterns of development such as this could be depicted that would make them quickly and easily accessible while somehow representing visually the idea that one phase builds on those preceding without replacing them. We also wanted the model to give a general feeling of growth and expansion - of moving 'out' into the world from an inner core. After several attempts, we arrived at an approach that uses concentric circles (Figure 1). Notice that the phases are divided into three distinct sectors: 'reactive', 'proactive' and 'interactive'. In musical terminology these

Figure 1: *A framework of musical development in children and young people with profound and multiple learning difficulties*



correspond to 'listening and responding to sound and music', 'causing, creating and controlling sound (including musical sounds)' and 'participating in sound and music-making with others'.

In reality, of course, the boundaries between segments as one moves in or out of the circle are not clear-cut like this, but fuzzy. And while it is possible to read across from one sector to another to

segments that are in some sense equivalent (for example, 'encounters sounds', ' makes sounds accidentally' and 'chance interactions'), it is quite possible that a child's profile of development will not demonstrate this symmetry; in our experience, 'reactivity' is likely to lead 'proactivity' which in turn is likely to occur before 'interactivity'. Further work is required to see what form 'typical' profiles of development may take.

Eventually, the programme may be web-based, to facilitate easy communication between schools and the research centre

This framework (whether ultimately in this or some other form) has a number of possible uses, it seems to us, and we are actively exploring these among our research group with some initial funding from the QCA. The longer term aim, for which further funding is currently being sought, is to create an interactive version on a 'tablet' PC which will be available in the classroom or elsewhere. This may be used:

a) as a tool to assess the musical development of children with PMLD
b) to promote further development through providing suggestions of 'what next' through appropriate resources and teaching strategies
c) to enable children's progress to be recorded directly using a small digital video camera and microphone attached to the PC.

It is anticipated that interaction with the framework will be via touchscreen technology. Teachers, therapists and carers (who may but need not be music specialists) will be able to draw down further information about each segment, including verbal material and video clips; they will be able to print out or listen to musical resources at the appropriate level; and they will be able to record their child to monitor and celebrate his or her achievements and progress. Eventually, the programme may be web-based, to facilitate easy communication between schools and the research centre, to enable resources that are found to be useful to be shared easily, and to ensure that evolution of the framework is ongoing, relevant and responsive to real-life developments in the classroom and elsewhere.

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If you have any comments or suggestions about the ideas contained in this article, or if you would like to join our research group, please do get in touch - we would be delighted to hear from you. Please phone or write to: Sally Zimmermann, Music Education and Employment Advisor, RNIB, 105 Judd Street London WC1H 9NE Tel: 020 7388 1266 Email: sally.zimmermann@rnib.org.uk

References

Welch G, Ockelford, A and Zimmermann S (2001) *PROMISE: The Provision of Music in Special Education*, London: University of London Institute of Education and RNIB.
Malloch S (1999/2000) 'Mothers and infants and communicative musicality', *Musicae Scientiae*, Special Issue, 29-54.

A list of further reading resources from the authors which consider the wider role music has to play in development; how musical development "typically" occurs in children; and theories from the field of cognitive science, is available from the editor.