Sounds of Intent: Mapping musical behaviour and development in children and young people with complex needs

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Context (1)

• Extrapolation from available data (DfES/ ONS 2005) suggests that there are approximately 41,000 children of school age in England with severe learning difficulties (SLD) or profound and multiple learning difficulties (PMLD).

• SLD + PMLD = ‘complex needs’
Context (2)

- Proportions = 4:1 SLD (32,000) to PMLD (9,000) in the overall special needs population (based on ONS data, 2005 [June])

- However, although these labels are widely used by professionals working in the field, they are interpreted very widely
Education in music & through music

Music education for children with SLD/PMLD

‘for its own sake’
- music is for all: equal opportunities issues
- unique medium of self-expression and communication with others
- access to cultural heritage

‘to promote wider learning and development’
- music and movement
  - promotes body awareness and movement
  - acts as ‘auditory frame of reference’
- music and learning
  - conveys environmental information
  - possible transfer of skills/abilities
  - concepts in sound
  - music as artefact
- music and communication
  - music can communicate directly without words
  - music can structure verbal language
  - music can substitute for language
  - abstract sounds can act symbolically in their own right
- music and socialisation
  - sound and self
  - sound and other—social protocols
‘PROMISE’ to ‘Sounds of Intent’


• Since early 2002, second research phase
• Same IoE/ RNIB project team + Res Officer
• + small group of PMLD classroom practitioners (with self-professed range of musical expertise)
• Regular meetings (once/twice per term)
• Aim: to generate an empirically-based framework of PMLD musical behaviour and development
‘Sounds of Intent’

- Data source: initial individual case studies (n=20 from six schools)
- Evidence grounded in observable behaviours of individual children + video recordings for subsequent group evaluation
- Longitudinal study, noting behaviours and changes (if any) over time
- New conceptual framework being developed
- Initial funding from QCA (2004); then Esmée Fairbairn Foundation (2005-2007)
framework of musical development in the domain of PMLD

(Ockelford, Welch, Zimmermann & Himonides, 2004)
SoI Methodology

- Year 1: 2005-2006
- 5 special education schools
- 68 children
- 630 observations
- Data collection piloted with tablet laptop computer, including “OneNote”
- Computer data collection and collation package designed (1.1, 1.2, currently 1.3)
- Observation data analysed
- Discussed with SoI Project Advisory Group
- Data disseminated
Numbers of Observations

- There was very little difference between the sub-total numbers of observations recorded for each segment:
  - Reactive = 217
  - Proactive = 208
  - Interactive = 205
Reactive (n=217)

SoI Reactive Behaviour Observations (n=217) by segment Spring/Summer 2006

R3 = ‘recognizes and reacts to simple patterns in sound’
SoI Proactive Behaviour Observations (n=208) by segment Spring/Summer 2006

Numbers of Observations

P1 25
P2 71
P3 84
P4 23
P5 2

P3 = 'intentionally makes patterns in sound through repetition or regularity'
SoI Interactive Behaviour Observations (n=205) by segment Spring/Summer 2006

Sol Interactive Behaviour Observations (n=205) by segment Spring/Summer 2006

I2 = ‘interacts with another or others using sound’
An example: SoI interactive 4/5

video
Number of observations (n=630) by Sol developmental framework categories (Reactive, Proactive, Interactive) for n=68 Year 1 participants with complex needs 2006.

The chart shows the distribution of observations across different categories of the Sol framework. Each category is represented by a bar, with the y-axis indicating the number of observations ranging from 0 to 120. The categories are labeled as R1 to R5, P1 to P5, and I1 to I5, corresponding to Reactive, Proactive, and Interactive, respectively.
Distribution of observations

- The observational data is biased towards the mid point (levels 2/3 of the 5 level scale)
- Interactive observations are skewed towards lower level (level 2)
- Relatively few observations are in the most advanced levels of each segment (levels 4 and 5)
Correlations between types of observed behaviour

- There is a strong correlation between Reactive and Proactive patterns of observations ($r = .927, \ p < .05$)
- There is less correlation between Reactive and Interactive patterns ($r = .458$, non-significant) and between Proactive and Interactive ($r = .673$, also non-significant)
A comparison between the five schools indicates that there was a relatively high degree of similarity in the pattern of the observations for each location. (Kendall's Coefficient of Concordance (W) for Reactive = .737; Proactive = .755; Interactive = .800)
Observations by sex (1)

- With regard to the pattern of observations in relation to the sex of the participants, there is a significant correlation in the data between scores across the fifteen (three x five) levels for the sexes ($r = .979$, $p < .001$) ($f = 28; m = 40$)
Observations by sex (2)

- The observational ratings for the sexes are very similar for each of the three segments (Reactive, Proactive and Interactive)

<table>
<thead>
<tr>
<th></th>
<th>Reactive</th>
<th>Proactive</th>
<th>Interactive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male (n=40)</td>
<td>2.6</td>
<td>2.5</td>
<td>2.0</td>
</tr>
<tr>
<td>Female (n=28)</td>
<td>2.5</td>
<td>2.6</td>
<td>2.1</td>
</tr>
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Longitudinal Data

- Longitudinal data on the observed musical behaviour of seven children in one school over a ten-week period
- Four (57%) were exhibiting more advanced musical behaviour in the final week compared to their first session, one had made no change and two (29%) were rated at slightly lower levels
Participants were aged 4y 7m to 19y 1m, with the average age 13y 1m.

There was a slight tendency for older participants to be rated more highly ($r = .289$, $p = .018$).
Conclusions

• Almost without exception, children appear to find significance in music.

• Whilst children are individual in their musical behaviours, framed by their particular disability, there are generic features emerging from current research.

• The mapping of such generic features suggests that there is evidence of individual development in particular cases.

• Implications for classroom practice are beginning to emerge, but more data are needed - the focus for Year 2 (2006-2007).

• Research is ongoing (Sounds of Intent II 2007-2009).
PMLD + SLD = Complex Needs

6 levels = original 5 collapsed to 4, plus 2 outer

Ockelford (2007)
video
For children and young people with complex needs:

Structured musical behaviours with syntactical features are evident in the absence of (or very limited) speech.
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