



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'

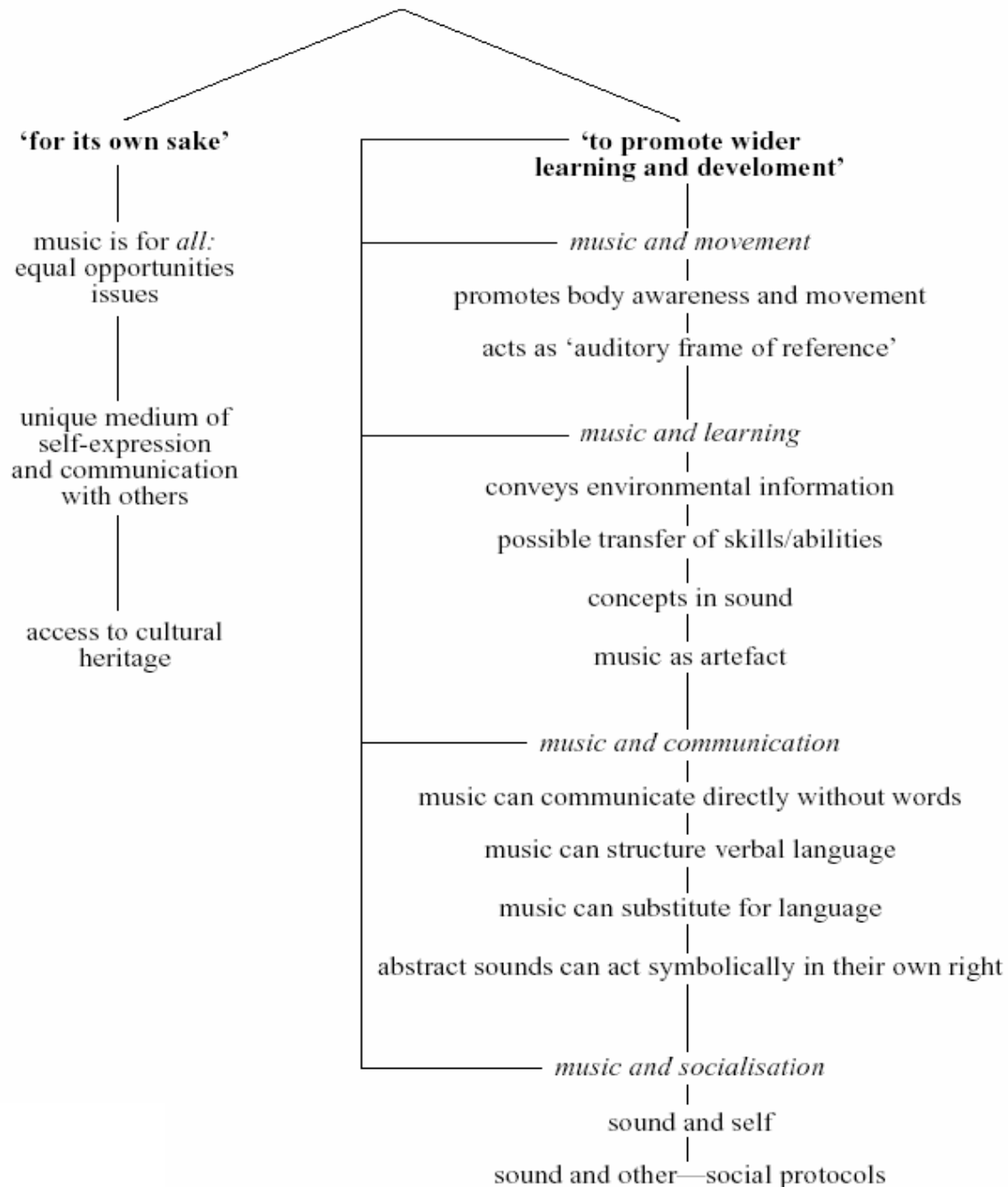
Context (2)

- 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**

Music education for children with SLD/PMLD



Education
in music
&
through music

'PROMISE' to 'Sounds of Intent'

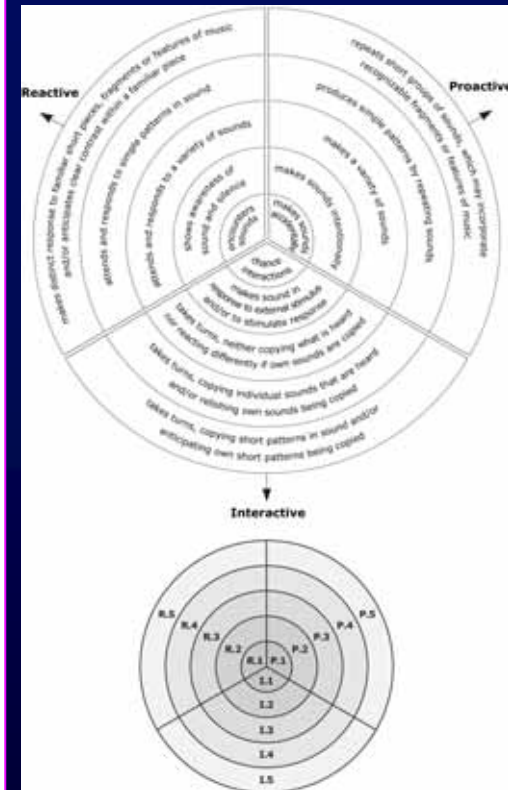
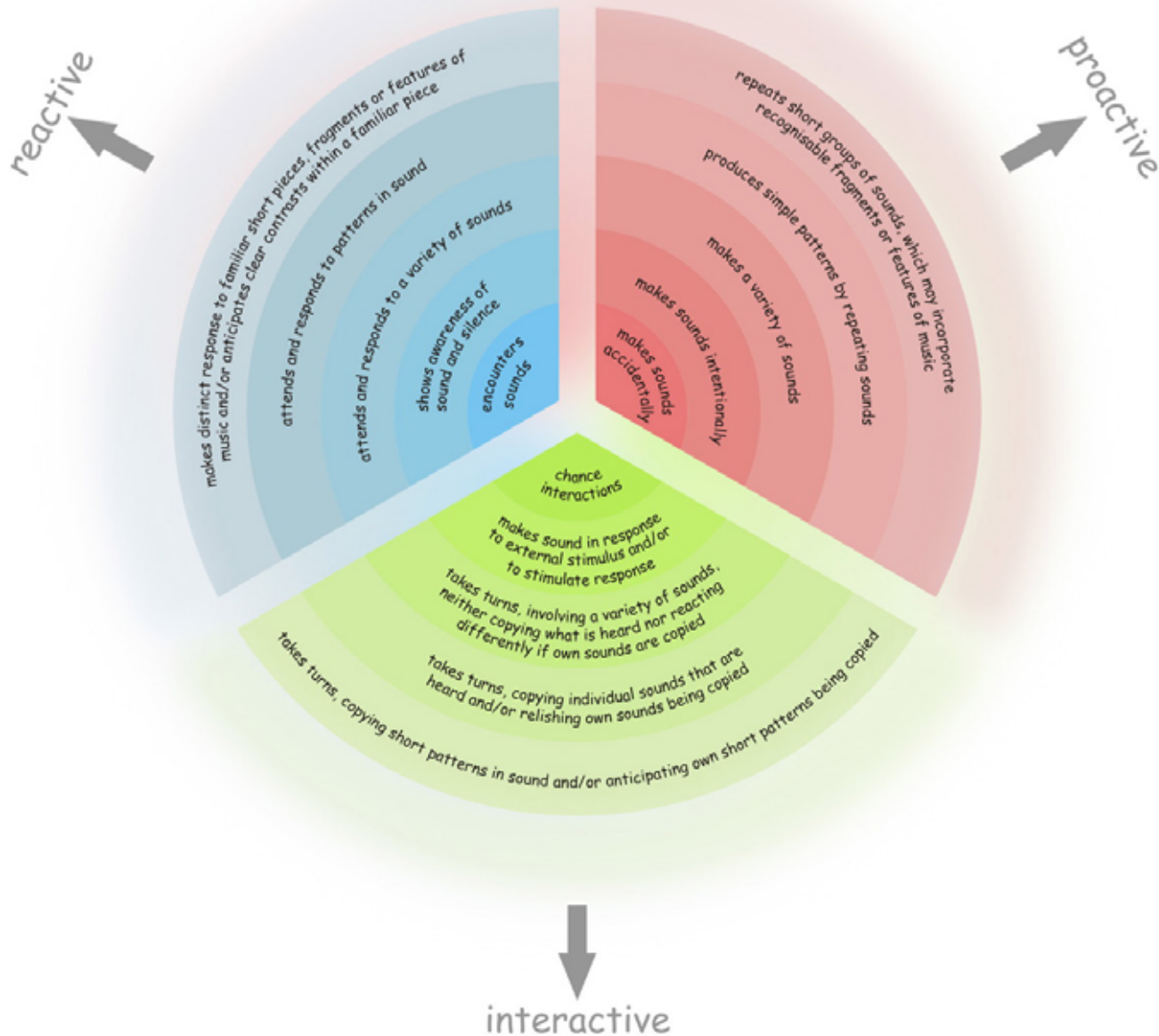


- Survey of music education provision [PROMISE] in England (1999-2000), published 2001 by RNIB/IoE (Welch, Ockelford & Zimmermann)
- Since early 2002, second research phase
- Same IoE/RNIB project team + Res Officer
- + small group of PMLD classroom practitioners (with self-professed range of musical 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

The screenshot shows a data collection form with the following sections:

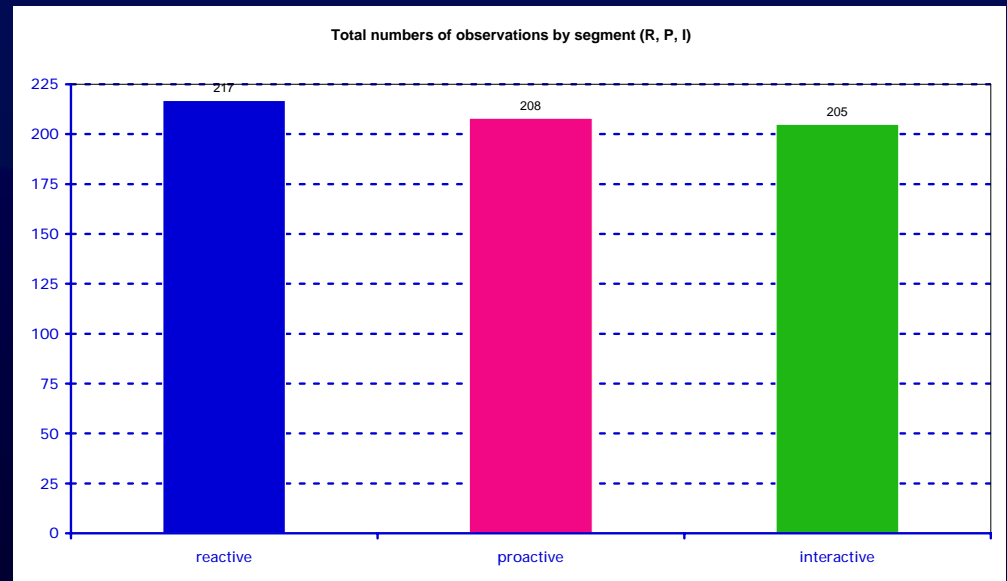
- School:** A text input field.
- Tutor:** A text input field.
- Pupil:** A text input field.
- Date:** A date selection field.
- Time:** A time selection field.
- Teacher Activity:** A large text area for recording teacher activities.
- Child Activity:** A large text area for recording child activities.

On the right side of the form, there is a vertical column of colored boxes, each containing a different activity category or code, such as 'Direct Instruction', 'Classroom Management', and 'Social Interaction'.



Numbers of Observations

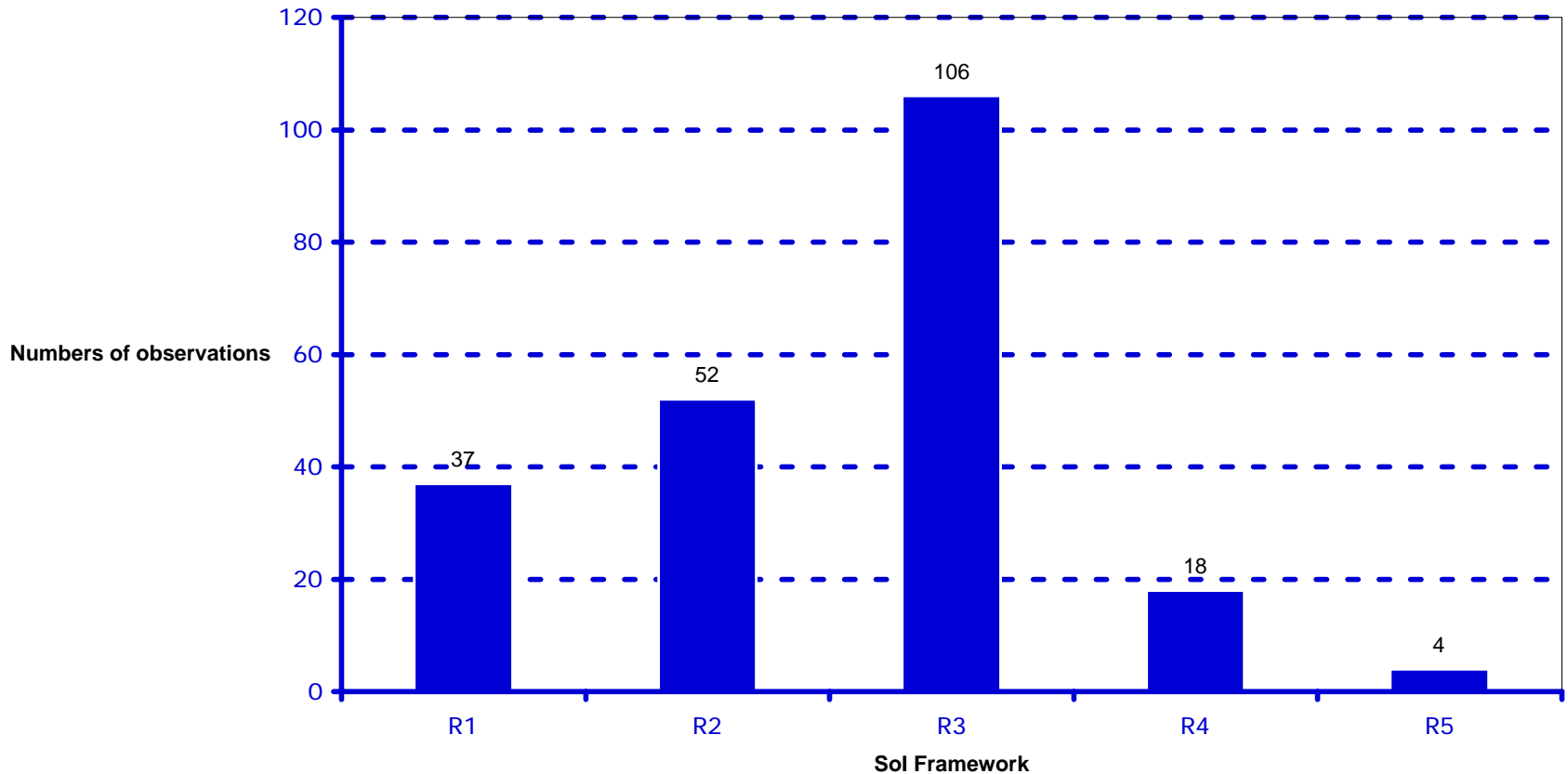
- There was very little difference between the sub-total numbers of observations recorded for each segment
- Reactive = 217
- Proactive = 208
- Interactive = 205



Reactive (n=217)



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

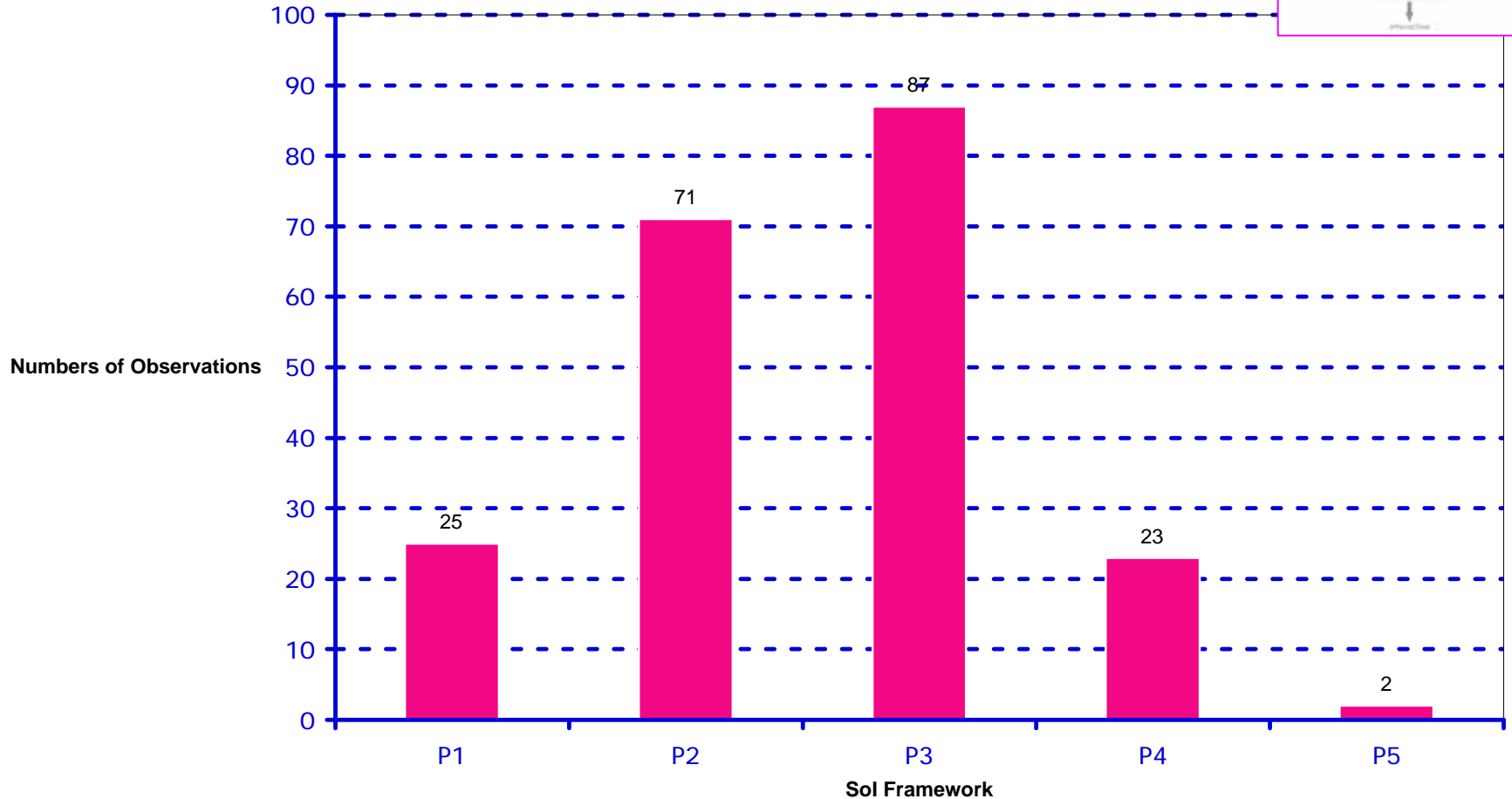


R3 = *'recognizes and reacts to simple patterns in sound'*

Proactive (n=208)



Sol Proactive Behaviour Observations (n=208) by segment Spring/Summer 2006

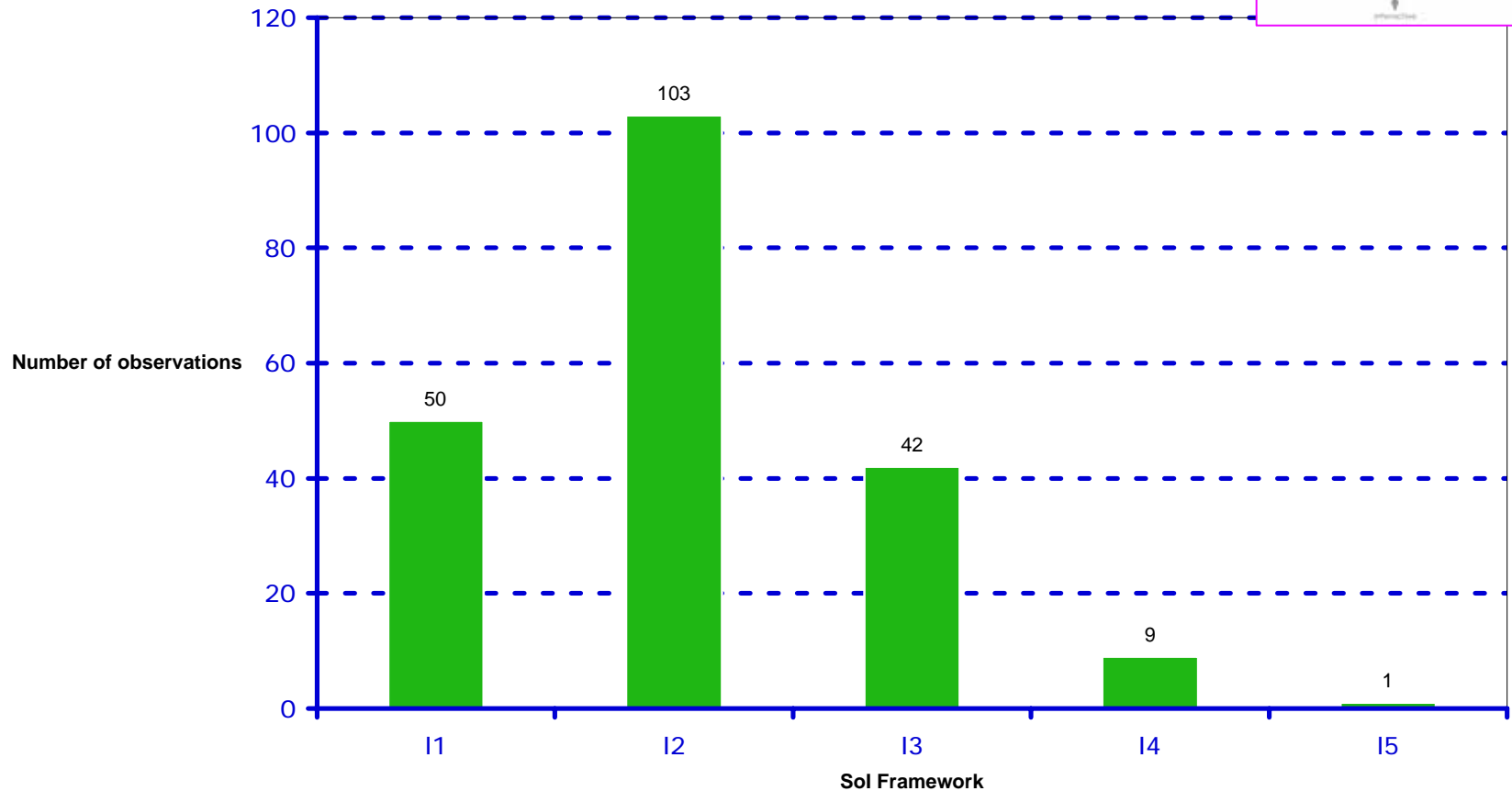


P3 = *'intentionally makes patterns in sound through repetition or regularity'*

Interactive



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



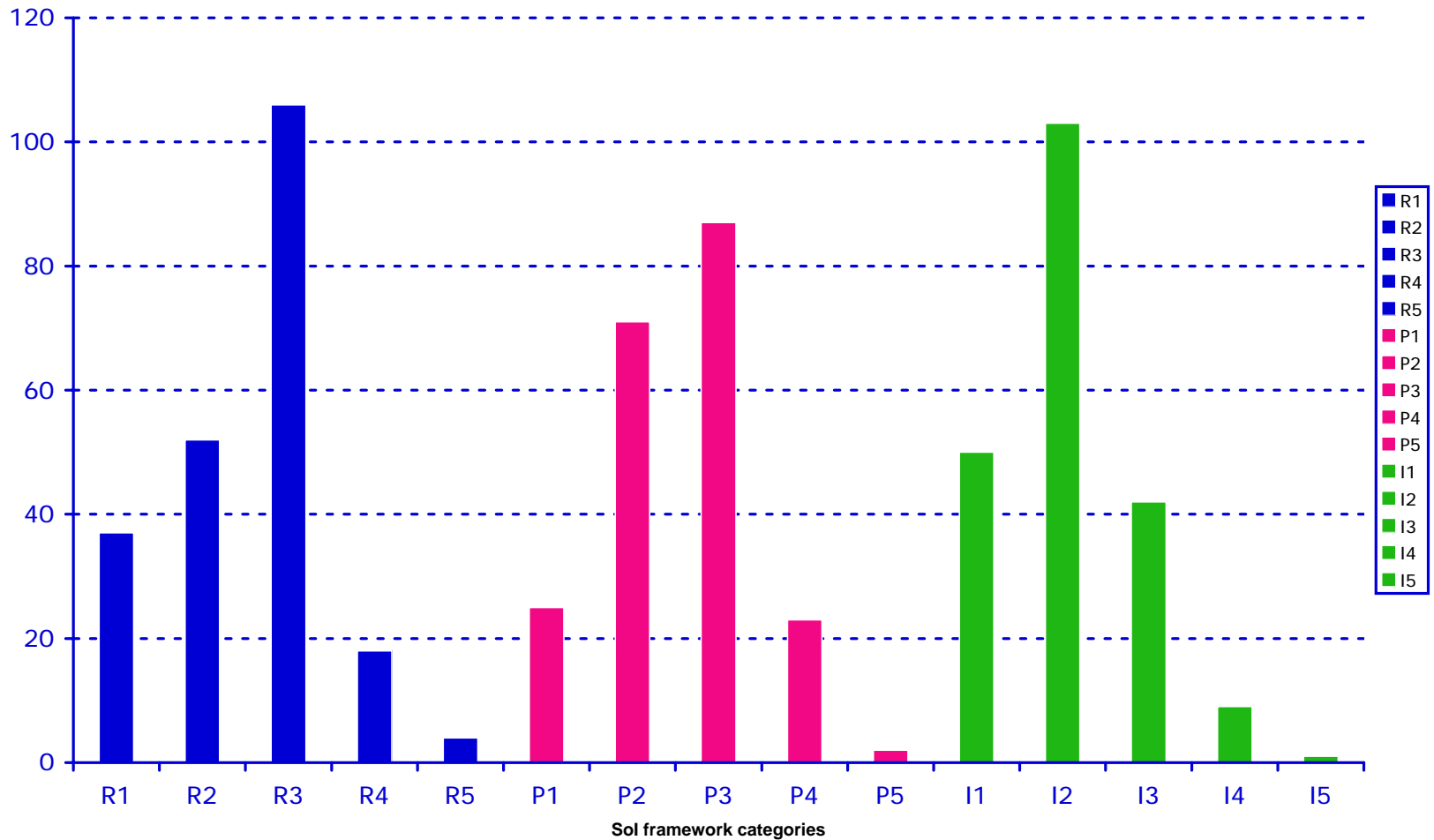
I2 = *'interacts with another or others using sound'*

An example: SoI *interactive* 4/5

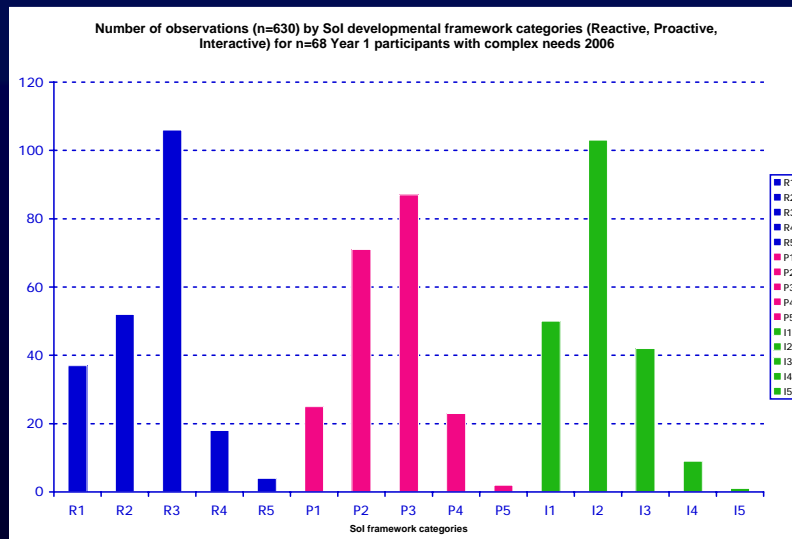


video

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

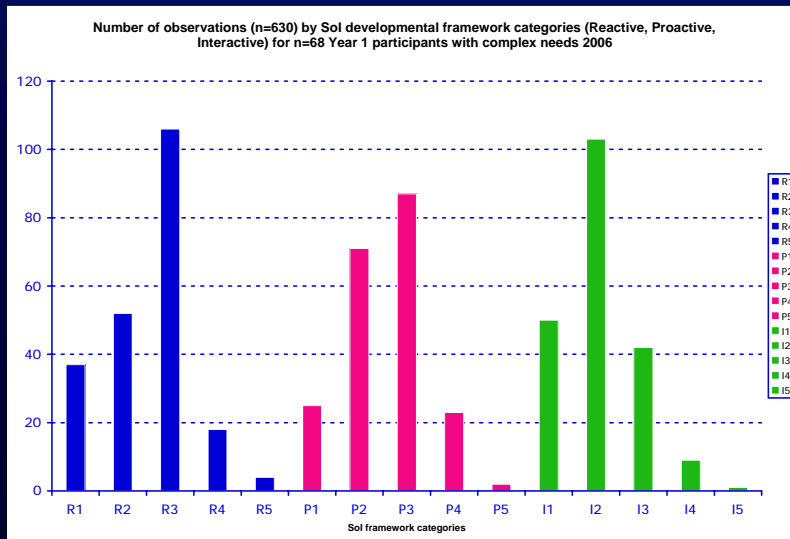


Distribution of observations



- 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)

Schools comparison



- 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)

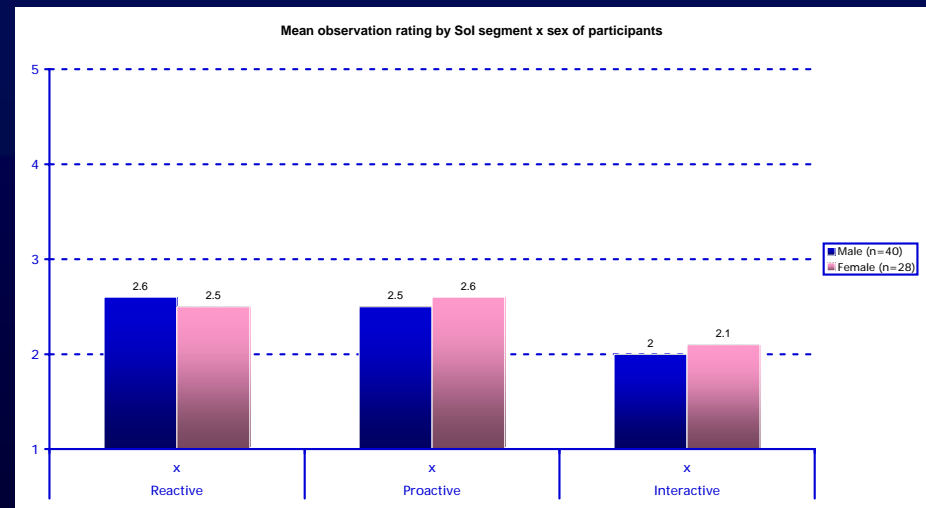


- With regard to the pattern of observations in relation to the **sex of the participants**, there is a significant correlation in the data between scores across the fifteen (three x five) levels for the sexes ($r = .979$, $p < .001$) ($f = 28$; $m = 40$)

Observations by sex (2)



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



	Reactive	Proactive	Interactive
Male (n=40)	\bar{x} 2.6	\bar{x} 2.5	\bar{x} 2
Female (n=28)	2.5	2.6	2.1

Longitudinal Data

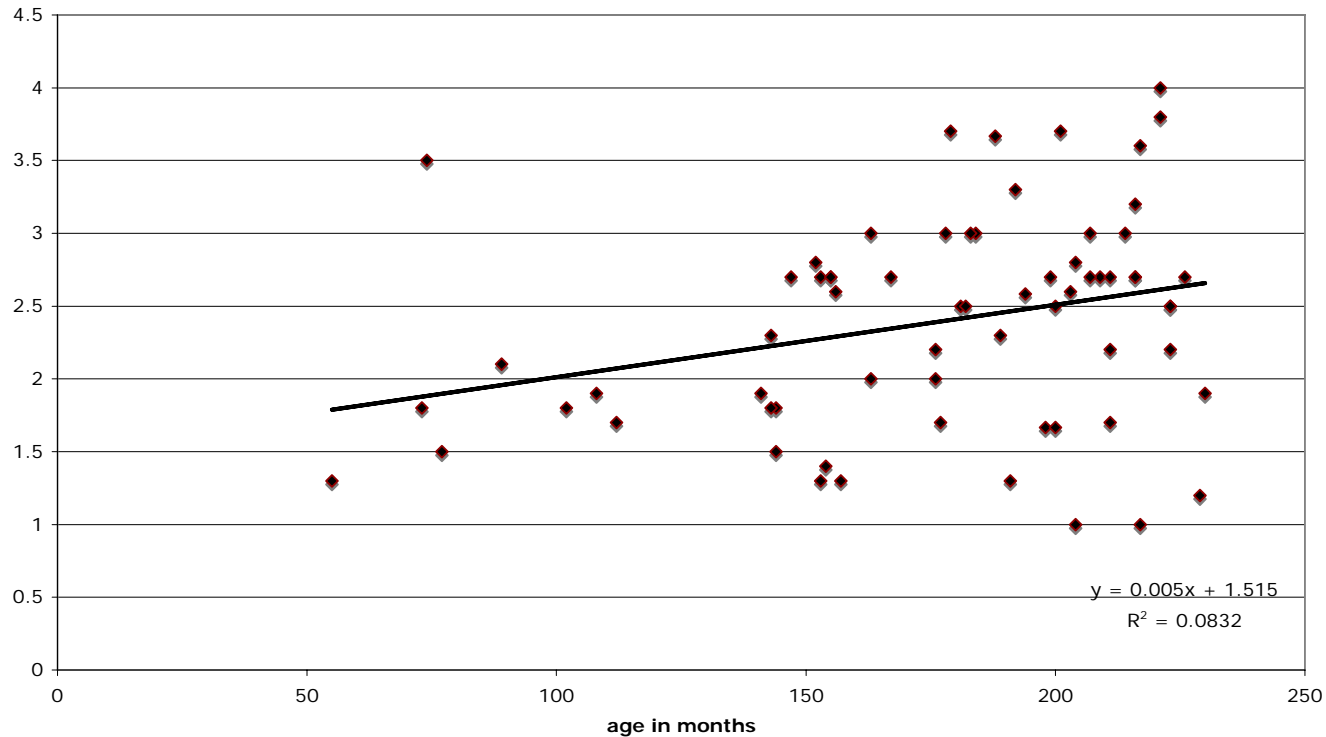


<u>Child</u>	Week 1				Wk10				change
	<i>R</i>	<i>P</i>	<i>I</i>	total score	<i>R</i>	<i>P</i>	<i>I</i>	total score	
1	3	3	3	9	3	3	2	8	-1
2	2	2	1	5	2	2	1	5	0
3	1	2	1	4	3	3	2	8	4
4	3	3	2	8	3	4	3	10	2
5	3	3	2	8	3	3	3	9	1
6	3	2	2	7	3	3	2	8	1
7	2	2	1	5	1	1	1	3	-2

- 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



Sounds of Intent: Age (months) x Sol Framework mean ratings (n=68)

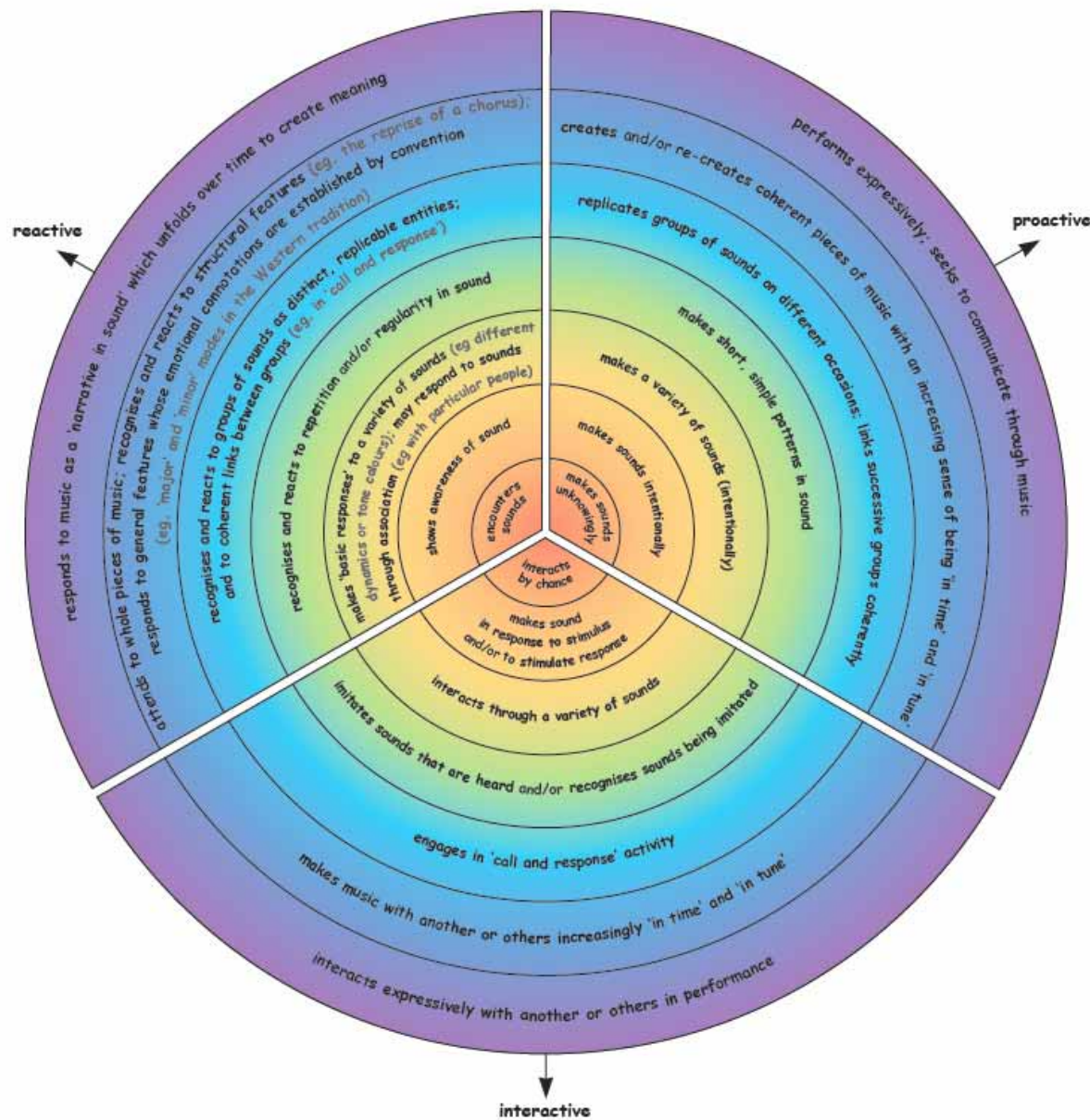


Age

- 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

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

Special thanks

- Margaret Corke
- Birgitta Ferron
- Stephen Haylett
- Matt Kemp
- Pat Lloyd
- Liz McNaughton
- Peggy Penfold
- Costanza Preti
- Sue Simmonds
- John Brockhouse
- Pupils of SoI participant schools



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