

Nurturing Children's Social and Emotional Development in Primary Schools: A Pilot Study

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Introduction

Nurture Groups provide an early intervention resource for children displaying social, emotional and behavioural difficulties, whose needs cannot be met in a mainstream class. The groups are informed by Attachment Theory, have positive effects on behaviour, social and emotional wellbeing [1] and academic attainment [2], and allow children who may be at risk of exclusion to remain within mainstream education.

Nurture Group Efficacy

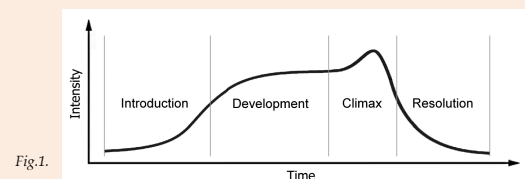
A comprehensive literature review was undertaken to establish the evidence base for Nurture Groups as an effective intervention for children with social, emotional and behavioural difficulties. The findings from principal Nurture Group research studies show:

- Nurture Groups assist positive relationships between pupils, parents and staff. [3]
- Improved social, emotional and behavioural functioning in NG pupils. [2]
- Improved academic attainment in NG pupils. [2]
- Nurture Groups address key attachment issues. [1,2]

However there remains a lack of understanding of the processes underpinning the efficacy of the Groups. It is hypothesised that the groups address a missing aspect of 'affect attunement' [4] in these children by establishing relationships built on 'companionship' [5] which provide a social, intersubjective forum for socio-emotional learning and development.

Social Learning and Emotional Development in the Co-Created Embodied Narrative

Successful intersubjective interaction within positive relations has been shown in infant studies of vocal patterning to display shared rhythm, quality, and narrative form. These are the hallmarks of 'communicative musicality' [6] which, together with expression in body movement, allows for the co-creation of meaningful experience in everyday projects [7]. We hypothesise meaningful relationships made in collaborative activity and communicative exchange between individuals produces this characteristic narrative pattern [Fig. 1]. As relations develop through embodied engagements, shared meanings and understandings are formed, both enabling and resulting in coherent co-creation of narrative patterns, which are arguably the structure of shared meaning-making [8].



The Narrative Structure displays the intensity of experience in an engagement over time, through four distinct phases. The narrative begins with an invitation to participate that makes up the 'introduction', followed by the 'development' of a mutual purpose that builds in complexity and intensity before reaching a point of peak excitation in the 'climax', typically expressed in simultaneous laughter or joy in the achievement of a shared goal. This is followed by a decrease in intensity as the engagement 'concludes' and the participants disengage from the project to separate or move to a new project [7].

Research Questions

1. What narrative patterns of engagement are evident in children attending NGs and what is their frequency?
2. How are narrative patterns co-created, how do children contribute to these patterns?
3. Do patterns of engagement change, relative to amount of time spent in Nurture Group?

Pilot Study

3 pupils, mean age 5 years, attending a Nurture Group in an urban local authority primary school in Scotland, were video and audio recorded during their usual Nurture Group session. This video data, in conjunction with video data obtained from a professional recording for a Channel 4 documentary [9], was analysed to measure the rhythm, frequency and duration of narrative episodes experienced by individual children.

This pilot study is part of a larger project to examine the behavioural and relational patterns developed in primary school children through Nurture Group intervention. Combined analysis of audio and video data collected from 17 children, aged 3-8 years, over 12 months, will allow an understanding of the psychological and social processes assisting the social, emotional and behavioural development of Nurture Group children to be examined.

References: [1] Seth-Smith, F., Pratt, R., Fonagy, P. & Jaffey, D. (2010) Do Nurture Groups Improve the Social, Emotional and Behavioural Functioning of At-Risk Children? *Educational and Child Psychology* 27 (1), 21-34. [2] Mackay, T., Reynolds, S., & Kearney, M. (2010) From Attachment to Attainment. *Educational and Child Psychology* 27 (3), 100-110. [3] Billington, (2012) "When they're making breakfast they'll talk". *Journal of Early Childhood Research*, 10, 318-331. [4] Stern, D. N., Horer, L., Hatt, W., & Dore, J. (1985). Affect attunement: The sharing of feeling states between mother and infant by means of inter-modal fluency. In T. M. Field & N. A. Fox, eds. *Social Perception in Infants* (pp. 249-268). Norwood, NJ: Ablex. [5] Trevarthen, C., Aitken, K. J., Nagy, E., Delafield-Butt, J.L., & Vanderechoren, M. (2006). Collaborative Regulation of Vitality in Early Childhood: Stress in Intimate Relationships and Postnatal Psychopathology. In D. Cicchetti & D. J. Cohen eds. *Developmental Psychopathology* (pp. 65-126). New York: John Wiley & Sons. [6] Grazzini, M., & Trevarthen, C. (2008) Musical Narrative and Motives for Culture in Mother-Infant Vocal Interaction. *Journal of Consciousness Studies*, 15 (10-11), 122-158. [7] Trevarthen, C., & Delafield-Butt, J. (2013) *Biology of Shared Experience and Language Development*. In: Legenstein, H., & Borstein, ed. *The Infant Mind: Origins of the Social Brain*. New York, Guilford Press. [8] Bruner, J.S. (1990). *Acts of Meaning*. Cambridge, MA: Harvard University Press. Bruner, J.S. (2003). *Making Stories: Law, Literature, and Life*. New York: Farrar, Strauss, & Giroux. [9] *The Nurture Room* (2009), true Vision North (DVD).

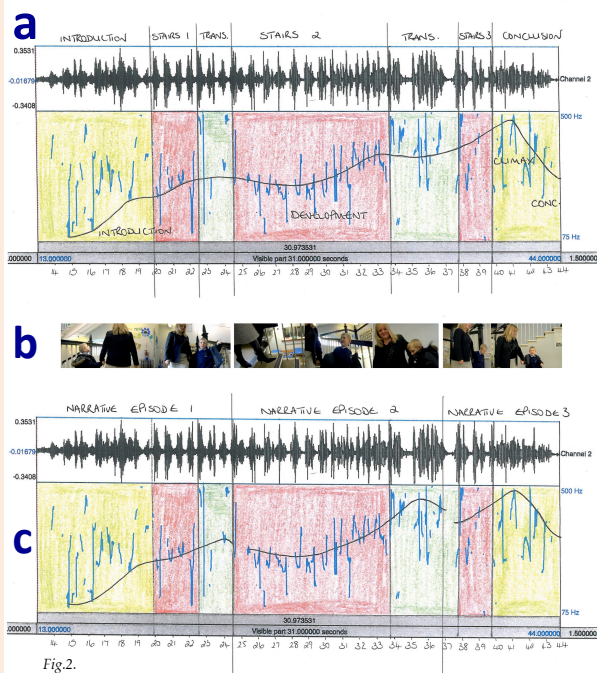
Preliminary Results

A 31 second narrative episode between a child and teacher was identified. The two were engaged in an everyday task, walking down the central school staircase. The teacher structured the interaction, describing the task ahead and then leading, counting the stairs as they walked down the three flights. Analysis of the pitch of teacher and child's voice together, detailed measurement of the timing of vocalisations, and analysis of their behaviours and tasks as they descended the staircase revealed (Fig.2):

- a. The overall project of descending the staircase presented one narrative structure which consisted of:
 - (i) an **introduction** as the child and the teacher walk towards the staircase and prepare for the task they are about to embark on. The teacher takes the lead as she encourages the child to count the stairs and they make their descent to the first landing.
 - (ii) a **development** of the interaction between the child and the teacher as their vocalisations and footsteps fall into a rhythm and the child is able to anticipate the counting of the next step. The child becomes excited and starts to count ahead of their footfall as they negotiate a second turning before falling back into a steady rhythm for the final few steps.
 - (iii) a **climax** which is reached as they reach the bottom of the staircase and share a moment of joy at completing the task, which is expressed as a smile from the teacher and an exclamation "woo-hoo" by the child.
 - (iv) a **conclusion** to the journey as they walk away from the staircase, leaving this task behind as they move on to something new.

- b. This overarching narrative was divisible into 3 narrative sub-units, each describing a small, shared project embedded within the larger task, and 7 separate phases (Fig.3).

- c. The rhythm of timings of expression in the narrative episodes was consistent within phases of development during descent of the staircase, but more varied during phases of transition on the landings. This indicates the structure of the shared project whereby the child and teacher become attuned to each other's actions and intentions, and the episodes of de-structure where the rhythm is thwarted (e.g. turning a corner of the stair) and new intentions require to be formed.



Phase	Duration (secs)	Average Utterance Interval (secs)	Standard Deviation	Beats per Second	Utterances (number)	Pitch
Complete narrative	31	0.824	0.308	1.214	28	↔
Introduction	6.91	0.843	0.36	1.19	2	→
Stairs 1	2.58	0.645	0.04	1.56	5	↔
Transition A	1.52	0.843	0.36	1.19	2	→
Stairs 2	9.42	0.825	0.21	1.22	13	↔
Transition B	3.53	0.665	0.46	1.45	3	→
Stairs 3	2.08	1.143	0.16	0.88	3	↔
Conclusion	4.18	1.18	0.42	0.85	2	↔

Table 1

Within the complete narrative episode, 7 distinct phases were identified, from which statistical calculations were made to show the rhythmic quality of the interaction and attunement of the subjects (Table.1). The vocalisations and corresponding footfall of the child and teacher show a rhythmic pattern, with the lower standard

deviation across the 'Stairs' phases indicating the attuned engagement of the child and teacher, while the higher deviations at transition points demonstrate a restructuring of engagement as they negotiate the formation of a new episode. The pitch direction of the vocalisations aligns with the contours of a typical narrative structure (Fig.1) indicating common form with musical narrative structure in mother-infant exchanges in which this pattern has previously been identified.

Conclusion

Analysis of pilot data indicates that Nurture Groups allow children the opportunity to co-create positive intersubjective projects within affective relationships in a safe, supportive environment. Evidence of narrative patterns of demonstrate a fundamental form of embodied meaning-making that can assist social and emotional development and learning is present. Further study will examine this insight with a larger population to show patterns, consistencies and differences across groups and over Nurture Group attendance.