

Copyright is owned by the Author of the thesis. Permission is given for a copy to be downloaded by an individual for the purpose of research and private study only. The thesis may not be reproduced elsewhere without the permission of the Author.

# The use of music therapy to support speech and expressive language development for pre-school children with special needs

*An exegesis submitted in partial fulfilment of the requirements for the degree of*

*Master of Music Therapy*

*at New Zealand School of Music,*

*Massey University, Wellington,*

*New Zealand.*

**Shari K. Ludlam**

**2011**



## Abstract

*Client-centred music therapy with individual pre-school children, involving playful but focused songs, behaviours and instrumental play, can enhance their speech and expressive language development. Four constructs were inductively created using the principles of grounded theory to represent how music therapy was used to support speech and expressive language development for pre-school children with special needs. Secondary analysis was undertaken of qualitative data drawn from usual clinical practice including clinical notes, reflective journal, audiovisual recordings, and notes from communications regarding two children from a student music therapist's caseload at a specialist centre in New Zealand. A case vignette is presented to illustrate these four meaningful constructs of individual music therapy and concepts that constitute each are presented, along with sample quotations from the data, and are theoretically integrated within wider music therapy literature. A tree model was used to capture these findings, which further suggested 'playfulness' may be a central aspect of the work. Implications for my developing and future clinical practice of music therapy are discussed, along with directions indicated for future research.*



## Acknowledgements

I would like to express my special thanks to the following people:

To the late Sir Roy McKenzie and the late Marion Rayward and their committees for the McKenzie Music Therapy Scholarship and Marion Rayward Memorial Trust Awards respectively, for enabling me to complete my Master of Music Therapy and this piece of research in Auckland.

To the team at the facility, my clinical supervisor and clinical liaison in particular, for supporting me throughout my placement and in undertaking my research.

To my clients and their families for agreeing to their involvement in this research and for teaching me so much about what music can do and how I can be.

To my research supervisor, Sarah Hoskyns, for supporting me in undertaking my second year in Auckland and for your guidance and insights throughout.

To my family, my mum in particular, for taxiing me from music lesson to band practice to concert for decades, putting up with my night-owl practicing, providing me with an outstanding education that nurtured and shaped my potential, and for continuing to support me in my choices.

To Luke, for your suggestions and endless support when I got stuck with the literature, the analysis, the process, the pressure, the people, the music, the thinking, the writing, the critiquing, as well as the travelling and airport visits. I continue to immensely appreciate your clear, levelheaded approach to life.



# Table of Contents

Abstract .....	i
Acknowledgements .....	iii
List of Figures .....	vii
Glossary of Terms .....	ix
Chapter 1. Introduction .....	1
1.1. Background to the study.....	1
1.2. Research Aim .....	2
1.3. Researcher's Personal Statement .....	2
Chapter 2. Literature Review .....	5
2.1. Speech and language development and difficulties .....	5
2.2. How music and language are related .....	7
2.3. How music therapy supports speech and language development.....	9
2.4. Summary .....	14
Chapter 3. Methodology and Methods.....	15
3.1. Research Design and Timeline.....	15
3.2. Data Sources .....	16
3.2.1. Researcher's Clinical Notes .....	16
3.2.2. Researcher's Reflective Journal .....	16
3.2.3. Audiovisual Recordings.....	17
3.2.4. Notes from Communications .....	17
3.3. Data Analysis.....	18
3.3.1. The Grounded Theory Process .....	19
3.4. Summary .....	21
Chapter 4. Findings .....	23
4.1. A client-centred approach, drawing on strategies for choice, intuition and planning to enhance the relationship within the environment .....	23
4.2. Engaging in and enhancing verbal, musical and non-verbal behaviour .....	26
4.3. Capturing children's preferences and vocal activity in the content and structural aspects of playful but focused song .....	29
4.4. Incorporating children's preferences for themed and functional instruments .....	31
4.5. Summary .....	33
Chapter 5. Vignette.....	35



Chapter 6. Discussion and Conclusion.....	39
6.1. Music therapy principles and methods .....	39
6.2. A music therapist's 'speech-and-expressive-language-specific' tool set .....	41
6.2.1. Finding a balance: Children's choice and control .....	41
6.2.2. Motivating children.....	43
6.2.3. Providing structure and context .....	44
6.2.4. Play and playfulness.....	46
6.3. Limitations .....	48
6.4. Future Research.....	50
6.5. Conclusion.....	52
References.....	53
Appendix 1: Ethical decision tree.....	57
Appendix 2: Facility information sheet.....	59
Appendix 3: Facility consent form .....	61
Appendix 4: Information for Families about Music Therapy Research 2011: Shari Ludlam.....	63
Appendix 5: Consent form for Families about Music Therapy Research 2011: Shari Ludlam.....	66
Appendix 6: Information for Specialist Service Professionals about Music Therapy Research 2011: Shari Ludlam .....	68
Appendix 7: Consent form for Specialist Service Professionals about Music Therapy Research 2011: Shari Ludlam .....	71
Appendix 8: Examples of grounded theory data analysis process: Analytic Memos .....	73
Appendix 9: Examples of grounded theory data analysis process: Coding .....	74
Appendix 10: Examples of grounded theory data analysis process: Initial list of categories .....	76
Appendix 11: Examples of grounded theory data analysis process: Axial Coding .....	77
Appendix 12: Main findings.....	78
Appendix 13: Adaptation of children's song <i>Teasing Mr Crocodile</i> .....	87
Appendix 14: Children's song <i>Five Little Monkeys Jumping on the Bed</i> .....	88
Appendix 15: Adaptation of children's song <i>Are You Sleeping</i> .....	89
Appendix 16: Traditional children's song <i>Five Green and Speckled Frogs</i> (also known as <i>Five Little                 Speckled Frogs</i> ) .....	90
Appendix 17: <i>Toot Toot</i> .....	91
Appendix 18: Adaptation of children's song <i>Galoop Went the Little Green Frog</i> .....	92
Appendix 19: <i>Down in the Jungle</i> .....	93

## List of Figures

Figure 1: Tree model used to capture the four meaningful constructs that represent how music therapy has been used to support speech and expressive lanugage development for pre-school children with special needs. ....	23
---	----



## Glossary of Terms

Client-centred approach – based on Person-Centred Theory developed by Carl Rogers, this approach allows the client increased power, control and decision-making, is based on unconditional positive regard, the development of trust, and a relationship in which the client and therapist are equals.

Critical period for language acquisition – also termed a sensitive period, this involves the capacity for optimum development in the first few years of life given the abundance of neurological activity and plasticity in early childhood

Melodic Intonation Therapy - a highly structured, repetitive technique involving sung and tapped phrases, uniquely effective in engaging the right hemisphere, priming the sensorimotor and pre-motor cortices, used with those with aphasia

Nativism – a theory of language acquisition, proposed by Noam Chomsky in 1957, posits that children acquire language through the use of an innate language acquisition device (LAD). This contains the basic information about rules of syntax and enables children to form and test hypotheses. Evidence of cases showing that without social interaction language does not develop provides support against Nativism, and for Social-Interactionist Theory

Neuro-linguistic theory – a theory of language acquisition, proposed by John Locke in 1997, posits four sequential neurologically based phases, based on long-term memory stores

Object metaphor - The association of an instrument to a different object

Onomatopoeia – a word that imitates or suggests the source of the sound that it describes, here refers to a word or vocalisation of the sound an instrument or animal makes

Plasticity – the premise that the brain is not hard-wired but is in fact governed by competition for precious resources. In the event of injury or dysfunction in an area of the brain, neighbouring brain cells can change their function. During the critical period the cortex is very plastic and its structure can be changed with exposure to new stimuli.

Recitative - style of monody (accompanied solo song) that emphasizes and indeed imitates the rhythms and accents of spoken language, rather than melody or musical motives. A sung commentary of what is happening.

Social-Interactionist Theory – a theory of language acquisition. In 1983 Bruner proposed an innate Language Acquisition Support System (LASS) to address the

interplay between language cognition and social development, wherein evidence shows that language is embedded in the social-emotional context of the family.

Sprechstimme – inflected or heightened speech

Utterance-Acquisition System – the second phase of Locke’s Neurolinguistic theory, follows ‘Vocal learning’ and involves children’s first words and short, formulaic phrases, learned from listening to others

Utterance-Analysis System – the third phase of Locke’s Neurolinguistic theory begins at about 20 months of age and involves an internal system which acts on information learned and retained during the second phase, enabling analysis and computation of grammar and syntax

Vocal-holding technique – the music therapist can provide the vocal means for a patient to explore sound, breath and voice, thus developing the capacity for vocalisation. Diane Austin's technique utilizes the voice of both client and therapist in grounding and mirroring within psychotherapy.

Wet voice – excess saliva resulting in a gurgly or ‘wet’ voice after swallowing

Zone of proximal development - The difference between the child’s actual development and potential development with aware and capable support. Children advance their skills best when adults adjust their level of play to that just beyond the child’s level.