

ANGLIA RUSKIN UNIVERSITY

IMPROVISED MUSIC TO SUPPORT INTERACTION BETWEEN
PROFOUNDLY LEARNING-DISABLED TEENAGERS
AND THEIR LEARNING SUPPORT ASSISTANTS

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Acknowledgments

Solo research seems increasingly rare these days. Doctoral research, therefore, with its single author, functions as a rite of passage into the research community rather than as a 'dry run' for the candidate's likely future research as part of a team. Nevertheless a doctorate is very much a team effort. My first and very sincere thanks go to my supervisors, Professor Helen Odell-Miller and Eleanor Richards. Without them I would not have completed this thesis, because it has only been the knowledge that these eminent authorities are willing to put their faith in my ideas that has held in check my life-long tendency to self-doubt. Helen's research expertise has undoubtedly saved me from several errors and misjudgements and Eleanor's insights from the field of attachment theory have opened up new angles and lines of inquiry into the data collected. Both supervisors have given me my head to press on unaided with developing large parts of the study, and I suspect I might have been wiser to seek more often the guidance that was there for the asking. Any deficiencies in the study are attributable to me alone.

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All the graphic material in the thesis is of my own design, but its execution would have been impossible without patient and methodical instruction from my daughter Ming-I, always willing to put her own studies on hold to solve the IT-related problems and challenges. Ming-I also assiduously copy-edited the main text (not the References, Appendices or Supplement). Any remaining infelicities are my responsibility alone. Finally my wife Carol has calmly defused the tension a second student (old enough to know better) in the home can generate, and has unfailingly supported me through the past three years with love and encouragement.

Abstract

In work with clients having profound learning disability, music therapists may include in sessions assistants not trained as music therapists. This study is a qualitative inquiry addressing the questions:

- 1) How does improvised music influence the interaction between teenagers with profound and multiple disability and learning support assistants?
- 2) Which aspects of the music are associated with any influences found?

A survey of music therapists, exploring how assistants are used and how effectively they perform their role, found that assistants are often used as ‘interaction partners’. To explore how the therapist may facilitate client-assistant interaction, about which little is known, video clips from the writer’s clinical practice were purposively selected in order to illustrate an approach entitled Triadic Support of Interaction by Improvisation (TSII).

Seven learning support assistants (LSAs) each viewed a video clip showing her own interaction with a teenager having profound disability, supported by the writer’s improvised music. Semi-structured interviews explored the LSAs’ understanding of the behaviour and inferred mental processes of the teenagers, their own behaviour and mental processes and the music improvised by the therapist to support the interaction. A variant of Interpretative Phenomenological Analysis generated shared themes, which included concern for the teenagers’ autonomy, interest in their communicative behaviour and understanding of the mutuality of interaction. The therapist’s improvisation was seen by the LSAs as influencing only the teenagers.

All the clips were also viewed by three music therapists, who used a mechanical continuous response device to register the influence of the therapist’s improvisation on four ‘scenarios’: the teenagers’ behaviour, their inferred mental processes, the LSAs’ behaviour and their inferred mental processes. Inter-rater agreement between the three therapists’ continuous responses was generally low, but some intra-rater correlations were found between pairs of scenarios, which the music was perceived as influencing in similar ways. This finding supports the conclusion that musical influences, although they may be analysed according to the four scenarios, actually function as a mutually inter-related system rather than as four independent processes.

Each therapist selected decision points from the graphic record of her/his individual responses to discussed with the other therapists as a panel. Positive evaluations were made of the role of TSII in supporting the observed teenager-LSA interactions and the inferred underlying mental processes. This research design was exploratory, and not intended to test specific hypotheses about the mechanisms of musical influence. Tentative suggestions of associations between influences and musical features are however offered by the writer.

Indications for the use of TSII are given and other applications suggested for novel aspects of the methodology developed for this study. A refinement of the continuous response task is proposed, and the requirements for any future formal evaluation of TSII are outlined.

Keywords: music therapy, profound learning disability, assistants, interaction, improvisation, continuous response

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List of Acronyms

APMT	Association of Professional Music Therapists (professional body for UK and affiliated music therapists; assimilated 2011 into BAMT)
BAMT	British Association for Music Therapy (UK body constituted 2011 to assume and extend the functions of former APMT and BSMT)
BSMT	British Society for Music Therapy (UK charitable body promoting public awareness of and support of music therapy; assimilated 2011 into BAMT)
CD	Compact disk (audio, video, or data)
CoMT	Community Music Therapy
DCSF	Department for Children, Schools and Families (UK Government)
GIM	Guided Imagery and Music
HCPC	Health and Care Professions Council (regulatory body set up by statute)
IAPs	Improvisation Assessment Profiles (Bruscia, 1987)
IG	Interaction Guidance (see Stern, 1998, pp. 138-142)
IPA	Interpretative Phenomenological Analysis (Smith et al., 2009)
IRAS	Integrated Research Application System
LB	LSA behaviour (this study)
LD	Learning disability/difficulty
LR	LSA representation (this study)
LSA	Learning Support Assistant
MAKS	Music Therapy Scale for Measuring Expression and Communication (Moreau et al., 2010)
MIDI	Musical Instrument Digital Interface
MTDA	Music Therapy Diagnostic Assessment (Oldfield, 2006b, pp. 123-158)
MT	Music Therapy
MTTB	Music Therapy Toolbox (Erkkilä, 2007)
NHS REC	National Health Service Research Ethics Committee
NICE	National Institute for Clinical Excellence
PIMD	Profound Intellectual and Multiple Disability (Hostyn and Maes, 2009)
PMLD	Profound and Multiple Learning Disability/Difficulty
SB	Student behaviour (this study)
SLD	Severe Learning Disability/Difficulty
SLT	Speech and Language Therapy
SoPs	Standards of Proficiency (for HCPC regulated professionals)
SR	Student representation (this study)
TSII	Triadic Support of Interaction by Improvisation (this study)
VIG	Video Interaction Guidance (AVIGUK, n.d.)
WFMT	World Federation of Music Therapy

Enclosed materials:

CD ROM in front cover of library copy, containing Appendices, as listed on p. xvi)

List of Appendices

(CD ROM in library copy, Volume II in electronic version)

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Copyright statement

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Introduction

This study enquires whether, and in what ways, music improvised by the therapist may influence the interaction between a music therapy client and an assistant.

Many important decisions depend on hunches. Although we do not know something to be the case, we feel sufficiently confident that it is to act on that assumption without waiting for absolute certainty. A hunch is not a mere whim, to be indulged when nothing of importance is at stake. It is a best guess, using experience, intuition and specialised knowledge, as to what is the case and what action is called for.

The hunch behind this study arose from long experience in the field of learning disabilities. I came to believe that in a particular clinical setting the music I had improvised to support interaction between learning-disabled teenagers and learning support assistants had been able to influence both clients and assistants on two conceptually distinct levels. But although I had videoed sessions and written session notes documenting the teenage clients' growing responsiveness, when I started the research I had left the post and could not therefore set up a clinical trial. The members of the supervisory team in my university's music therapy department advised me that it would be entirely possible to research retrospectively the work documented in the extensive video archive in my possession.

I decided to call the particular procedure in which I was interested 'Triadic Support of Interaction by Improvisation' (TSII). Rather than attempting to separate TSII into elements which could be operationalised, measured and subjected to quantitative analysis, which I feared might miss the essence of therapeutic processes, I decided on a qualitative approach. This would enable me to tap into the insights of both the learning support assistants, who had participated in the therapy, and fellow music therapists, who could exercise their clinical judgment without the conflict of interest entailed in first person research.

Part A of the thesis provides the context. After an account in Chapter 1 of the development of TSII, I discuss in chapters 2 to 5 the nature and therapeutic needs of the client group of people with profound learning disability, in particular the need for interpersonal interaction; the various ways music therapy has been reported to address those needs; the role of assistants in different music therapy approaches and settings; and finally the topic of clinical improvisation, which is central to TSII. Chapter 6 then develops research questions and discusses my choices of the methodology with which to investigate them.

Part B describes five stages of investigation which make up the study – a survey of UK music therapists’ use of assistants in work with learning disability (Chapter 7), an analysis of qualitative interviews with learning support assistants (Chapter 8), and an investigation of the clinical judgments by three music therapists of the case material, in two parts: individual continuous responses to video clips (Chapter 9) and a panel discussion of these responses (Chapter 10). Chapters 7 to 10 are structured in the same order: method, findings, discussion and limitations. Chapter 11 provides a first person discussion of the clinical material; drawing together and commenting upon the findings of Chapters 8 to 10, but adding my own independent understanding of the therapy process. Each video clip is discussed in the following sequence: the clip as a whole; therapists’ continuous responses when they were most in agreement; the panel discussion; and finally my own assessment of musical influences. The detachable Supplement, to be read alongside Chapters 10 and 11, contains transcriptions of the music of all the clips viewed by the panel. The Appendices include full transcriptions of all interviews.

Part C consists of Chapter 12, which contains a summary of the findings, a general discussion and conclusions, and suggestions for future work.

I have referred to the learning support assistants as ‘she’ and to the therapist as ‘he’, which reflects the actual situation in the clinical material studied. There is no implication that gender is crucial, although as always it may have had some influence on the dynamic between student, LSA and therapist. Students were of both genders and have been referred to as ‘he’, ‘she’ or ‘(s)he’ as the context requires. I have written in the first person where I wish the reader to remember that this is one person’s views and experience, using an impersonal voice where it seemed more appropriate.

Numbers in brackets (3.2., 6.3.5.) refer to other locations in the thesis. Those reading the electronic version may access these locations via the navigation pane. The Appendices are available online as volume II, and on a CD ROM included with the bound copy of the thesis in Anglia Ruskin University Library.

PART A: CONTEXT

Chapter 1: Improvised music to support interaction between clients and assistants.

In this chapter I explain how a particular combination of circumstances provided the spur to the development of a music therapy procedure which has not been described in the literature. I entitle the procedure 'Triadic Support of Interaction by Improvisation' or TSII. The interaction referred to is that between a client and an assistant. The clinical work providing the primary research data for this study is a case series of video extracts in which teenagers with profound and multiple learning disability (PMLD) interact with their learning support assistants (LSAs).

I describe the educational context of the therapy, the nature of the LSAs' educational role, my progress from a didactic to an experiential approach when developing LSAs' skills as music therapy assistants, and the clinical indications for TSII as one of a range of music therapy procedures used in the groups. Finally I outline the topics that will need to be explored in subsequent chapters in order to understand the context of the research.

1.1. Origins of the research topic

This study investigates a particular clinical procedure which I shall refer to as Triadic Support of Interaction by Improvisation, or TSII. The procedure was developed late in my professional career in the course of running group music therapy for profoundly learning-disabled teenagers. As I had not seen or heard the procedure discussed, I wished to discover whether my clinical judgment that it was effective could be justified and explained.

1.1.1. Educational context and client group

The choice of TSII as a research topic originated from my thinking and reflection on three years of clinical work described in a recent book chapter (Strange, 2012). Teenage students with profound and multiple learning disability (PMLD) were brought once a week from their special schools to a further education college in an inclusion project known as “College Link”. Group music therapy, with general developmental aims such as encouraging communication and self-expression and developing the ability to tolerate, enjoy and co-operate in group activities, was one of a series of ‘activities’ offered to the learning-disabled students during their day in a college setting. As teaching and support staff always referred to the teenagers as students, I shall do the same, without in any way implying that they were studying music or that the prime motive for offering them music therapy was educational.

The students had levels of disability comparable to those of the young adults for whom Intensive Interaction (Nind and Hewett, 1994) was first developed but, unlike those young adults, they had not become institutionalised and were therefore much more approachable and less isolated. To varying degrees, they were all capable of social interaction, especially with familiar adults, including their learning support assistants. The work I shall describe built on this existing foundation.

1.1.2. Working with LSAs as music therapy assistants

Almost every student was supported by an assigned member of staff throughout the day in college. This was normally a learning support assistant, whose role in the music therapy groups was to help the student to access and contribute to the musical experiences and activities. LSAs were also able to offer the student a personalised interactive experience, even during group music-making activities. My original reason for welcoming interaction between students and their LSAs during group music therapy sessions was that it gave me insight into the students’ social abilities and needs. Whereas I saw the students for less than

an hour per week, the LSAs had extended daily contact with them and therefore knew and understood their needs and their often idiosyncratic ways of communicating, and could share this knowledge with me. As I continued to work with the groups of teenagers and LSAs I developed my own knowledge and understanding of the students through observing and reflecting on what happened in sessions, but the LSAs' unique knowledge of the students remained a valuable resource.

1.1.3. Developing LSAs' skills and understanding as music therapy assistants

All the LSAs attending College Link were considered by their employing schools to be sufficiently experienced to be entrusted for a day with the care of a profoundly disabled student in an unfamiliar and sometimes physically challenging college environment. All had undergone basic training at school in the general educational and care duties of an LSA, and at least one had received more advanced training, though not to a professional level. They had not, however, had any previous experience of music therapy, nor training for the role of music therapy assistant. Before therapy started, therefore, I provided a group training session designed to give LSAs basic information about the nature and purpose of music therapy and the skills they would need in order to act as music therapy assistants. This was well received by those who attended and further sessions were given at intervals, but a number of LSAs were for various reasons unable to attend any of the training I provided.

Once therapy was under way I was keen to offer the LSAs some form of feedback or debriefing after sessions, but this was seldom possible because they remained in charge of students throughout the day in college and did not have any free time in which to review the work with me. I briefly tried a system of two-way feedback by email, but LSAs did not make consistent use of this opportunity. Instead, I verbally shared essential information with the LSAs during the day in college, giving them guidance as the need arose, which was often only practicable during the actual sessions. Most LSAs accepted guidance willingly, but I was always mindful of the risk of undermining their confidence, and tried to find ways to encourage them to develop their own therapeutic potential.

1.1.4 Potential differences in understanding between therapist and assistants

I was aware that my own insights into the dynamics of LSA-student interactions, derived from my professional training as a music therapist, would be different from how the LSAs viewed the relationships with the students, which they had developed through working with them in educational and caring roles. As educators, LSAs were accustomed to

working towards specific developmental targets, often of a functional nature, which they often did sensitively and creatively. I imagined this would make them more likely to focus on observable behaviours than to infer underlying mental processes. They might see students' resistance or indifference more as a problem to overcome or circumvent than as something to understand and work with. Signs of distress and expressions of sadness might therefore be met first with comfort and distraction, seeking a deeper understanding only if these proved ineffective. Similarly, co-operation in activities might be reinforced by praise and viewed as an achievement to be celebrated, without reference to whether the student's co-operation was motivated by the interest and meaning to him of the activity or rather by his need for adult approval.

These expectations of how the LSAs' educational experience might lead them to behave in music therapy were based on considerable previous experience with assistants, but I found the attitude and approach of these particular LSAs much closer to my own than I had anticipated, making most of my concerns unfounded. Their personal qualities, the enlightened and supportive attitudes of their teacher-managers and the ethos of their schools enabled them, with a few exceptions, to adapt to a therapeutic style of working and thinking, although in a few cases this took time. I have no access to the video record of the first year of sessions with the groups, but I recall that the relationship of a few LSAs with me, and also occasionally with the students, could be difficult in the early days. When interviewed, one LSA (Appendix 7a/6, lines 0387-0403) told me that a few LSAs found it difficult at first to understand my music therapy approach, and could take my guidance as personal criticism.

1.1.5. Experiential learning in the development of LSAs as interaction partners

All the LSAs in this study had brought up their own children, including in at least three cases an intellectually disabled child. They thus had already exercised procedural skills of interaction with the developmentally young, which music therapy could draw upon and enhance. Too much verbal guidance might have discouraged them from using their own skills and understanding. Explicit instruction in the skills most needed for the role of interaction partner in other settings has been found to be less effective than experiential learning (2.2.3.) This is probably because it is more empowering to discover and use one's own potential, with minimal guidance, than merely to experience something by following instructions, or worse still merely to learn about it in theory. This is the basis of both Video Interactive Guidance and Interaction Guidance (2.2.4. and 2.2.5.), although these

approaches also require the experiential discovery of competencies to be promptly reinforced in review and discussion with a professional.

1.1.6. Developing a specific therapeutic procedure involving LSAs

Because of their disability, the students' emotional and developmental needs were in many ways best fostered through interpersonal interaction (2.2.) As therapy progressed I increasingly encouraged and supported the interactions that were already occurring between students and LSAs, rather than interacting directly with students myself. I made this change largely intuitively, rather than by the conscious analysis of their needs. By watching these interactions I learned more about the students' interactive abilities than would have been possible by only interacting with them myself. I also became more aware of the interactive skills of the LSAs. In supporting student-LSA interactions I was developing not only the students' interactive skills but also those of the LSAs, so that they might become more effective and therapeutic interaction partners, both in music therapy and beyond.

Whilst fostering interactions between individual students and LSAs became an increasing feature of the sessions, I did not lose sight of the needs of the group as a whole, and of the specific benefits to these students of receiving therapy in a group. In addition to episodes of TSII, I continued to use more structured activity-based approaches, such as are described by Nordoff and Robbins (1971), Oldfield and Bean (2001) and Goodman (2007).

1.1.7. Triadic Support of Interaction by Improvisation

I supported student-LSA interaction by means of improvised musical accompaniment. My aim was to encourage, develop and consolidate interactions that met the student's emotional and developmental needs, and to encourage and facilitate change when interactions did not seem to be meeting those needs. Even when an LSA's interaction with a student seemed unhelpful to the student, I tried to avoid taking over from the LSA as the student's interaction partner. To have done this would not have addressed the underlying causes of the unhelpful interaction. It would have risked giving both interacting partners the impression that I doubted their ability to contain difficult feelings about being together, and would have devalued the LSA's practical interactive skills. Stern (1998) explains how, in McDonough's 'Interaction Guidance':

“The therapist does not interact with the baby to model behaviours for the mother; this could sabotage the mother's self-confidence and destroy her

view of the therapist as her ally, making him her successful competitor or a better or more expert caregiver.” (Stern, 1998, p.141)

Confining my intervention to a musical one, even when my aim was to modify the LSA’s behaviour, avoided sabotaging the self-confidence of the LSAs.

It is the use of improvised music in support of interaction between one student and one LSA, which is the subject of this study. I have entitled this procedure ‘Triadic Support of Interaction by Improvisation’ (TSII). Sometimes more than one such student-LSA interaction might be in progress simultaneously, but the clinical examples explored in this study are confined to instances where a single student-LSA interaction is the focus of my musical support.

1.1.8. Circumstances in which the use of TSII was clinically indicated

There were two kinds of situation in which I was most likely to use TSII. The first was when I had decided at some point in the session to focus my therapeutic intervention, and the group’s attention, on one student. This most often arose during a series of student solo spots, interspersed with a pre-composed ensemble chorus in which all were invited and encouraged to play. An example of this is Video clip 2 (10.2.2. and Supplement p.11/12). During each student’s solo ‘spot’, other students would be encouraged to attend and listen, but their musical participation was allowed and sometimes encouraged. The LSA working with the student whose turn it was to play might herself spontaneously play, vocalise or otherwise encourage the student, without needing to be asked. She might do this when the student seemed unresponsive, or appeared to be having difficulty in playing an instrument, but equally she might respond musically or socially when the student was musically or socially more active. Alternatively she might simply act as a watchful, caring presence, conveying her interest and encouragement to the student by the bare minimum of social or musical signalling. I would relate my musical support to what both partners were doing, rather than focus only on the student’s responses. I might sing about what was occurring, or give voice in song to what I thought either partner might be thinking or feeling, but I tried to avoid addressing either partner directly, and my social separation from the interacting dyad was emphasised by staying behind the keyboard in the corner of the room at a physical distance from the partners, as shown in Appendix 11a.

The second circumstance when TSII was used was when, during a group improvisation or during a lull between activities, I noticed an interaction already developing between a student and an LSA. In this case also, I would relate my musical support to the contributions of both partners. In both circumstances, my music had the additional

function of drawing the attention of the group to the dyadic interaction, by following and perhaps amplifying its key musical features. If others were improvising, the structure and mood of my playing, being attuned to the behaviour of the dyad I supported, could draw other group members' music towards that of the focus dyad. This met an important clinical aim for group members, that they should become more aware of and responsive to their peers' actions and the moods they expressed, and also more aware of the interest and reactions of other group members to their own communicative behaviour.

1.1.9. A narrow research focus

The process of music therapy can only be properly understood by following it through an extended and sometimes gradual series of changes, not by focusing only on highlights or significant moments (Nordoff and Robbins, 2007, pp. xxii-xxiv). The present study does not, however, aim to explore the therapy process of the music therapy groups, but rather to examine the use in the groups of TSII as a music therapy procedure (Bruscia, 1987, p.16) which may be adopted when clinically indicated. Many other procedures were also used, which this study will not investigate.

1.1.10. Placing the topic in context

TSII was only developed by the writer as a procedure to be used with profoundly learning-disabled clients, and although there might be other clinical contexts in which it could be of use, and some of these will be suggested in chapter 12. It is therefore important to understand the nature of the client group for whom TSII was developed, their specific needs and how these may be met. This is the subject of chapter 2. TSII should be seen in the context of the range of music therapy models and procedures currently used with this client group. This is the purpose of chapter 3. The most original feature of TSII is the role given to the assistant, so it will be instructive to compare the way in which therapist and assistant work together for the client in TSII with the various other forms of collaborative working in music therapy which involve either other professionals or family members, rather than assistants, described in chapter 4. Finally, the therapist's intervention in TSII consists of improvised music guided by clinical judgment. Chapter 5 will therefore address some issues around improvisation in therapy, including the difficulties inherent in researching it. We examine methodological questions raised by the decision to investigate TSII in chapter 6 before part B of the thesis presents the methods and findings of the various stages in investigating TSII.

Chapter 2: Profound and multiple disability and interpersonal interaction

In this chapter I define the concept of profound and multiple learning disability. I refer to theories of early communicative development which explain why interpersonal interaction is particularly important to this client group. I cite research on factors contributing to the quality of interpersonal interaction, describe staff development initiatives designed to enhance interaction with people with PMLD and the evidence that in staff training experiential learning is more effective than theoretical instruction. Finally I note that Nind and Hewett's Intensive Interaction for adults with PMLD, which TSII in some respects resembles, derives its theoretical basis from an understanding of mother-infant interaction.

2.1. Learning disability

2.1.1. A recent UK definition

The Department of Health (2001, p.14) states that

“Learning disability includes the following:

- A significantly reduced ability to understand new or complex information, to learn new skills (impaired intelligence) with
- A reduced ability to cope independently (impaired social functioning)
- which started before adulthood, with a lasting effect on development.”

Clark and Griffiths (2008, p.3) explain that this definition

“covers a broad spectrum of individuals with impairments resulting from numerous causes including genetic or chromosomal abnormalities such as Down syndrome, prematurity or hypoxic brain injury acquired at birth.”

2.1.2. Variation in terminology according to context

Three essential services on which people with learning disability depend are Healthcare, Social Care and Special Education. In supporting people with learning disability, each service has a different focus of interest. In healthcare, diagnosis, prognosis and indications for treatment depend on a knowledge of aetiology and the pathological aspects of impairment; in social care, management and support are informed by assessment of the client's social functioning, degree of dependency and existing sources of support; in special education, developmental as well as academic needs are addressed by approaches which take account of the individual's learning style and capacity and of potential barriers to learning.

These differing foci of interest may account for the use of differing terminology to describe the same client group. Thus the UK Health and Social Care sectors use the term ‘learning disability’ (Mencap, n.d.) although the term ‘intellectual disability’ is gaining ground. The Education sector prefers ‘learning difficulty’ (DCSF, 2009, p.6). This difference in terminology reflects the context and aims of service provision and does not imply a difference in the condition referred to. To speak of ‘learning disability’ acknowledges that a person finds it hard to acquire the skills needed to function in society; to speak of ‘learning difficulty’ focuses attention on the person's problems in accessing educational

provision. I shall use the term ‘learning disability’ because social functioning rather than educational progress is my main interest.

2.1.3. Handicap and impairment

A distinction may be drawn between handicap and impairment (MacIntyre, 2008).

Handicap is the practical and social disadvantage to the individual of his/her impairment, and depends to a large extent on society’s attitudes and responses. The ‘social model of handicap’ in its extreme form takes the view that society has invented the concept of handicap to excuse the mistreatment, neglect, marginalising or patronising of the person with an impairment. This view is a reaction, some would say an over-reaction, against the older ‘medical model’ which locates the deficit entirely within the individual. This polarization of views and attitudes does little to advance understanding of the needs of those with disabilities.

The philosophy behind the music therapy work investigated in the present study was that the clients had objective mental and physical impairments which might require specific healthcare interventions, but that society’s view of them and response to them, including the understanding of professionals and those who assist them, can have a major impact on the extent of their handicap. Without denying or concealing the teenagers’ profound learning disability, therefore, I attempted to create a facilitating environment in which they could experience themselves as socially competent and able to act purposefully and creatively, and in which the staff assisting them would see them in the same light.

2.1.4. Profound and multiple learning disability (PMLD)

A booklet from the PMLD Network defines profound and multiple learning disability thus:

“Children and adults with profound and multiple learning disabilities have more than one disability, the most significant of which is a profound learning disability. All people who have profound and multiple learning disabilities will have great difficulty communicating. Many people will have additional sensory or physical disabilities, complex health needs or mental health difficulties. The combination of these needs and/or the lack of the right support may also affect behaviour. Some other people, such as those with autism and Down’s (sic) syndrome may also have profound and multiple learning disabilities. All children and adults with profound and multiple learning disabilities will need high levels of support with most aspects of daily life”. (PMLD Network , 2008., p.3)

PMLD, then, is not a diagnostic label but an umbrella term for people in varied diagnostic categories with varied aetiologies. It is useful in identifying those who require a high level

of support and in suggesting the kinds of support they will need. In this sense the term PMLD applies to all the student subjects in this study.

2.1.5. PMLD as a category of special educational needs

Within the education service, schools are required by statute to provide an education appropriate to meet individual pupils' special educational needs (DCSF, 2009), allocating additional resources as required. The level of additional public funding required to assist a school in fulfilling this requirement is often calculated from the prevalence on the school roll of precisely defined categories of need, rather than of broad categories like PMLD.

Different areas of development, such as motor, cognitive and emotional, may be delayed to different degrees, especially in older students, making a single value for developmental age misleading. This uneven development may be documented in a pupil profile so that education may be tailored to the needs of each individual. However, broad categories such as PMLD are also useful to enable the school to plan curriculum development generally. One rule of thumb way of defining PMLD is in terms of developmental age. Welch et al (2001), for example, circulated the following definition to fifty special schools in connection with an investigatory study entitled Provision Of Music In Special Education (PROMISE):

“.....pupils (who) have profound global developmental delay, such that cognitive, sensory, physical, emotional and social development are in the very early stages (as in the first 12 months of usual development)....”

Participating schools found this a useful way of identifying a particular sub-set of special needs children for the purposes of the study (Ockelford, 2008). Severe Learning Disability (SLD) was defined for the same study by Welch et al (ibid.) as having a developmental age of between 13 and 30 months. In the present study most of the teenage students actually had developmental ages above 12 months but as all were non-verbal and highly dependent I shall continue to refer to them as having PMLD, since most definitions of SLD extend to much higher ability levels.

2.1.6. The relevance of infant development to understanding PMLD

PMLD is a developmental disorder. A knowledge of normal development, especially communicative development, is therefore valuable in understanding people with PMLD, for whom development has not progressed very far, or along a normal course. There have historically been several schools of thought as to what drives infant development. Messer (1995) compares models of communicative development and shows that they differ on

how far early capacities, such as attending to people, distinguishing special individuals and giving social signals, are innate and how far learned. He points out that Piaget overstates the dependence of communicative development on the experience of acting on the world, since when such action is hampered by physical disability the impact on communicative development is not as catastrophic as Piaget's theory would predict. He contrasts Piaget's position with that of Vygotsky, who gives a much larger role to social interaction and culture as the basis for development, especially in the way these stimulate and support the "zone of proximal development", i.e. what the child can do with help, but not yet independently. Similarly, Kaye is cited as describing the "adult framing of infant behaviour" which gives it an appearance of intentionality by attributing intention before it is truly present, and thus stimulates the development of intentional communication

Messer (*ibid.*) concludes that diverse theoretical views should be seen as complementary, since none provides a complete picture. He does, however, cite a number of empirical studies of movement, social gaze and vocal turn-taking which suggest that the infant's ability to play an integrated and reciprocal part in social interaction may have been overstated. Whilst infants modify their behaviour in response to that of the adult, he suggests there may not be genuine inter-subjectivity before about 18 months. Sroufe (1996) shows the interdependence of cognitive and social-emotional development.

One of the strongest advocates of the dominant role of nature as opposed to nurture has been Trevarthen (1998) who champions the concept of early "inter-subjectivity" and a basic innate motivation to make social contact. Music (2011) takes a more even-handed view of the roles of nature and nurture. He cites accumulating evidence that neonates and even foetuses are equipped from before birth with sophisticated skills to seek and maintain the social contact they need to survive and develop, although until they have the capacity for reflection, empathy and symbol formation they require the active co-operation of the carer. Whatever the balance between innate and socially acquired communicative ability, it is clear that the interaction partner is essential for optimal developmental progress.

2.2. Meeting the needs of people with PMLD for meaningful human contact

A person whose profound disabilities make him highly dependent for basic care needs into adult life requires interaction partners who can balance the characteristics of infant care with a consideration of what is appropriate for his chronological age. Meaningful social interaction is important, not only to maximise developmental progress, but also to provide a satisfying quality of life. The dependency of a person with PMLD has many similarities to that of a young infant, the biggest difference being that it is not temporary. Like that of

infants, it is an emotional as well as a physical dependency, even though in some respects his emotional needs are those of an adult. Because people with PMLD cannot easily seek meaningful human contact for themselves, social interaction can be a very impoverished area of existence, on account of both their own communication difficulties and the difficulties others experience in initiating and sustaining interaction with them (Nind and Hewett, 1994, p.34).

2.2.1. How institutions may impact on meeting social needs

Effective and rewarding interaction with people with PMLD is not always facilitated by the management regime of institutions which care for them. For example, Forster and Iacono (2008) conducted a qualitative analysis of interviews with three care workers with long experience of working with a single adult with PMLD in residential care. It was found that all three had established close and friendly relationships with the resident by learning to understand and respect her limited and idiosyncratic ways of communicating and self-occupying, but that they had achieved this by tacitly ignoring their employing organisation's guidelines on professional distance and age-appropriateness. They all agreed that because these relationships had taken considerable time to develop, temporary staff would not have been able to provide the quality of life this resident needed. Staffing in special schools can in my experience be more stable and consistent than in adult residential care, so that effective relationships, sometimes lasting many years, can more easily be built between staff and students, so long as staff are deployed in ways that make this possible.

2.2.2. Factors contributing to quality of interaction for people with PMLD.

Hostyn and Maes (2009) review the literature in order to construct a coherent model of what has been shown to contribute to successful and fulfilling interactions between persons with PIMD (profound intellectual and multiple disability – their preferred alternative to the term PMLD used in the present study) and their interaction partners. In their study the person with PIMD could be a child or an adult, the interaction partner a parent, teacher or member of support staff. They identify four core variables in interaction partners – sensitive responsiveness, joint attention, co-regulation and an emotional component.

The empirical studies reviewed by Hostyn and Maes (ibid.) do not include any written from a psychodynamic standpoint, and only two out of fifteen studies mention emotion as a component in interaction. Emotion might have featured more strongly if the authors had searched by keywords from the psychodynamic field such as 'inter-subjectivity' and 'attachment' in addition to 'interaction', 'communication' and 'relationship'. The review

cites one study (Clegg et al., 1996) examining the effect of the interaction partner's perception of her role, as either 'provider', 'meaning-maker', 'mutual' or 'companion', on the style of interaction provided.

Hostyn and Maes (ibid.) observe that several studies show poor awareness of the asymmetry of carer-client relationships. Thus 'abilities and disabilities', 'behaviours' and 'personality' are often considered only in relation to the person with PIMD and 'knowledge', 'strategies' and 'perceptions' only in relation to the non-disabled interaction partner (ibid, pp. 309-310). This is to ignore the fact that the person with PIMD does have (implicit) knowledge, does employ strategies and does have a perception of the interaction partner which influences their relationship. Conversely the interaction partner may have a disability (perhaps a lack of emotional intelligence), may exhibit helpful or unhelpful behaviours, and has a personality which is just as likely to affect the relationship, for better or worse, as that of the person with a disability.

One of the aims of the music therapy approach investigated in this study was to mitigate the carer-client asymmetry for the learning-disabled teenagers and learning support assistants in the groups by involving the latter as partners in shared musical activities and directing my clinical thinking and intervention equally to the needs of both in order to build a rewarding inter-personal relationship.

2.2.3. Interaction partners' need for experiential training

Staff working with children or adults with PMLD in schools, colleges and day and residential social care clearly need an understanding of the role of early interaction in development, as outlined in section 2.1.6. Theoretical knowledge is not enough, however, as was vividly demonstrated by Foreman et al. (2007) who studied a special school staff development programme in communication support which focused on developing theoretical understanding. They found that, whereas trainees self-reported improved understanding and competence after the programme, quantitative measures of clients' interactive behaviours actually showed a small deterioration. This shows that self-evaluation by trainees has serious limitations, but because it is simple and inexpensive it is still sometimes used (Kyle et al., 2010) without monitoring the effect on clients' experience, which might well present a different picture.

Maes et al. (2007) reviewed the literature on quality of life interventions for people with PIMD to answer the following research questions:

- Which strategies to improve quality of life have been described and implemented?
- What are their main characteristics?
- What are the effects of these quality-enhancing strategies or interventions on support staff and/or individuals with PIMD?
- What are the necessary conditions for an effective implementation of these quality-enhancing strategies?

It was found that a combination of preferred activities and social interaction was more effective than either alone. From the studies reviewed, they concluded that most training programmes and schemes probably have some positive effects, but that this is often not demonstrated convincingly because of inadequate cohort size and various methodological flaws in the studies. Interactional skills are not however acquired only through formal training. Nind and Hewett (1994) demonstrate that relevant practical experience, with appropriate support and mentoring, are more effective because many of the requisite skills are innate and need to be evoked rather than taught. Part of the value of TSII is its potential as an informal experiential training for support staff.

2.2.4. Video Interaction Guidance

Video Interaction Guidance, (AVIGUK, n.d.) aims to enhance a parent's ability to reflect on and develop their relationship with a child. The parent watches video of her/his interaction with the child. The facilitator avoids pointing out unhelpful parent behaviours and instructing the parent to modify them, and focuses on identifying positive parent behaviours and encouraging the parent to recognise them for her/himself, thereby increasing self-esteem, confidence and optimism about the relationship with the child.

2.2.5. Interaction Guidance

During the earlier stages of a similar intervention, known more succinctly as Interaction Guidance (Stern, 1998, pp.138-139) the practitioner also watches video-recordings of parent-infant interactions with the parent, but whereas in Video Interaction Guidance the parent is helped to discover her parenting skills for her/himself, in Interaction Guidance attention is actively directed to evidence of good, or potentially good, parenting skills of which (s)he may not have been aware. This more didactic approach may be required where the parent's negative perceptions have become more deeply ingrained.

The present study included interviews in which learning support assistants (LSAs) viewed and responded to video clips of their interaction with students. Although these interviews were not intended as LSA training, one LSA commented that such video recall and

discussion could be useful in training. A common feature shared by these interviews and both VIG and IG was that the interviewer selected video clips as examples of broadly successful interactions, and encouraged interviewees to comment on their own role in these interactions. However, the interviewees were LSAs rather than parents, and were not referred, self-referred or selected because of any concerns about their ability to interact with the students. Another difference from VIG and IG was that the LSAs viewed the video clips a year or more after they had been recorded, when work with the therapist had ceased and memories of the events recorded had faded.

2.2.6. The “responsive environment”

Ware (2003) explains, in a training text for staff in schools, how to create what she terms a “responsive environment” for people with PMLD. She distinguishes between the human environment – the behaviour and attitudes of the people with whom the student spends his school day – and the material environment, be it toys, sensory materials and experiences, seating arrangements or augmentative communication aids. She points out, however, that an individually differentiated, interactive material environment to meet each student’s needs will only be created and sustained if staff have the requisite attitudes and understanding.

2.2.7. Intensive Interaction for people with PMLD

Developing good staff attitudes and understanding is central to Ware’s (ibid.) agenda for school pupils with PMLD. A strategy for developing such attitudes and understanding by taking a radically new view of the learning environment for adults is Nind and Hewett’s (1994) Intensive Interaction. Nind and Hewett were faced with young adult students with severe to profound learning and communication difficulties who had developed extreme social isolation and challenging behaviour under a previous highly institutionalised regime. They had been taught, by behavioural methods, basic skills of discrimination and self-help, broken down into their smallest constituent parts, but little attention had been given to social, emotional and communicative skills. The remedy developed by Nind and Hewett was for all staff to build fulfilling relationships with individual students. They believed such relationships, and not training, are the basis of skill development, since early interaction and play skills are learned by non-handicapped infants without the need for anything resembling training.

Playful interaction proved rewarding for both students and staff, and the approach gradually spread throughout the curriculum. Classroom activities planned and dominated

by staff gave way to a student-centred approach. The students' self-absorption, anxiety, aggression and apathy decreased and staff found their role more enjoyable and less stressful. Nind and Hewett (ibid.) report that subsequent practitioners of Intensive Interaction have described it as relearning to "behave naturally" but they stress that playful interaction needs to be underpinned with careful recording, analysis and planning, if the students are to progress from passivity through reciprocity to initiation.

Intensive Interaction uses skills which most people deploy intuitively when relating to infants, but may need encouragement and reassurance to use with older children and adults who are developmentally very young yet look much older. Particular difficulty in adapting to a more intuitive approach may be experienced by those whose professional training has emphasised the educational curriculum, behaviourally oriented learning theory, age-appropriateness and classroom management.

Nind and Hewett (ibid.) do not apply the label 'therapeutic' to their approach but concede that it has the potential to heal the wounds from previous sterile and controlling institutional regimes and social isolation, however caused. They summarise their philosophy as respect for the individual and the natural process by which humans learn through interaction with others and state that Intensive Interaction is intended for those "who remain untouched by traditional approaches ...who do not yet know that being with another human being can be pleasurable or can be under their control". (p.11)

2.2.8. Mother-infant interaction as the blueprint for Intensive Interaction

Nind and Hewett (ibid., p.30) review the literature published since the 1960s on early interaction and the following is a summary of their main findings. Early learning occurs in a dynamic social environment in which the flow of interactions depends on the caregiver's reading of the infant's signals and careful timing of her responses. Physical contact is at first central, but is later equalled in importance by looking and listening. Mutual enjoyment and participation create the motivation to continue interacting. Infants elicit from caregivers a specialised style of communication, including both modified language and speech and pre-linguistic vocal behaviour, tailored to their stage of development. Interaction varies in intensity according to the infant's fluctuating need for more or less stimulation. Contingent responses to the infant, including imitation as part of an ongoing interchange, give him a sense of agency and control. Games repeated many times with subtle variations are the basis for later conversational skills. Turn-taking develops first through the caregiver's skill in timing and later under mutual control. Caregivers develop

intentional communication in infants by attributing communicative intention before it is known to be present.

Nind and Hewett (*ibid.*, p.34) point out how profound disability has negative effects on interaction. The caregiver may have difficulty reading the person's signals or may work too hard to establish interaction, resulting in a poor interactive fit and a lack of mutual enjoyment. The most appropriate and effective interventions are therefore likely to be those which address the difficulties in interacting faced by both the individual with a disability and his/her interaction partner, which make use of what is known about early communicative development and which place sufficient emphasis on mutual enjoyment. The present study investigates a music therapy approach (1.1.6.-1.1.8.) which attempts to address these issues, by encouraging LSA-student interaction of a responsive, playful character, and by using improvised music to support both interacting partners and help them negotiate ways of being together in music which will be mutually enjoyable.

2.3. Summary and implications for research topic

The care and support of people with PMLD has similarities to good infant care. Interpersonal interaction is essential to both development and quality of life. Carers' and educators' interaction skills need to be acknowledged, elicited and developed rather than taught. The management style and philosophy of the institution will in large part determine whether this can occur. Training offered to staff should include an experiential component rather than being purely theoretical and didactic.

Intensive Interaction is informed by mother-infant interaction and in addition to benefiting the learning-disabled client it provides a form of experiential training for assistants. TSII uses improvised music to support similar activities.

Chapter 3: Music therapy

This chapter opens with a brief overview of music therapy, intended to position TSII within the wider field of music therapy. Because the approach was developed in an educational setting, I distinguish music therapy from music education, noting a degree of overlap in both content and purpose when working with developmentally very young clients. I discuss the relevance of early mother-infant interaction to music therapy theory and practice. Finally I explore with the help of a recent extensive review the music therapy literature most relevant to work with people having PMLD.

3.1. Locating my topic within a steadily expanding and diversifying field

In 1996 the World Federation of Music Therapy (WFMT). 1996) defined music therapy thus:

“Music therapy is the professional use of music and its elements as an intervention in medical, educational, and everyday environments with individuals, groups, families, or communities who seek to optimize their quality of life and improve their physical, social, communicative, emotional, intellectual, and spiritual health and wellbeing. Research, practice, education, and clinical training in music therapy are based on professional standards according to cultural, social, and political contexts.”

Given the broad scope and variety of professional music therapy world-wide (Dileo Maranto, 1993), not to mention many traditional, culturally embedded therapeutic uses of music, it is clear that the question “what *exactly* is music therapy?” has no simple answer. Bruscia (1998a) devotes a whole book, twice the length of an earlier edition, to defining music therapy. This chapter will locate Triadic Support of Interaction by Improvisation (TSII), within the field of professional music therapy by noting parallels and drawing distinctions.

Darnley-Smith and Patey (2003) state that music therapy may be divided into the use of music for its inherent restorative or healing qualities and the use of music as a means of interaction and self-expression within a therapeutic relationship. In common with much UK practice, TSII is a procedure concerned with interpersonal interaction and relationship and the influence of music on these.

3.1.1. Music for interaction and self-expression

Under this heading Darnley-Smith and Patey (ibid.) consider first Community Music Therapy (Ansdell and Pavlicevic, 2004) characterising it (p.10) as “a psycho-social intervention which aims to provide treatment within the community within which the clients are living” and noting that similar approaches were well established in a range of settings before the creation of the generic title. TSII shares with Community Music Therapy a role for the therapist as a facilitator rather than as an interaction partner.

Darnley-Smith and Patey (ibid.) next consider Guided Imagery and Music (GIM), a receptive technique using a sequence of carefully selected recorded music to stimulate the client’s exploration of evoked images and feelings, under the therapist’s guidance. In GIM the use of pre-recorded music contrasts with the use of live improvisation in TSII, but

again the therapist takes a supportive role and the client engages more with the music than directly with the therapist.

Darnley-Smith and Patey's third instance of music being used for interaction and self-expression is improvisational music therapy, in which therapist and client interact and express themselves through musical improvisation. It is central to Creative Music Therapy, Free Improvisation Therapy and Analytical Music Therapy, three distinct theoretical models whose pioneers all worked primarily in the UK (Bruscia, 1987). TSII is not another music therapy model, but rather a 'procedure' (Bruscia, 1998a) within improvisational music therapy, about which very little has so far been written, and although it develops interaction, the interaction partner is not the therapist.

3.1.2. Music used within a therapeutic relationship

The development of a therapeutic relationship features in a number of different theoretical models and has been a key concept since the inception of the UK music therapy profession, as may be seen from the following brief definition, composed in the 1990s to inform the lay public (British Society for Music Therapy, n.d.)

“There are different approaches to the use of music in therapy. Depending upon the needs of the client and the orientation of the therapist, different aspects of the work may be emphasised. Fundamental to all approaches, however, is the development of a relationship between the client and the therapist. Music-making forms the basis for communication in this relationship.”

This statement is more prescriptive than that of the World Federation in its insistence that the relationship between the client and the therapist is always fundamental. The concept of the client-therapist relationship features again in a more recent statement on the website of the newly constituted British Association for Music Therapy (British Association for Music Therapy, 2011) but without the same insistence on its fundamental role in all approaches:

“Music plays an important role in our everyday lives. It can be exciting or calming, joyful or poignant, can stir memories and powerfully resonate with our feelings, helping us to express them and to communicate with others.

Music therapy uses these qualities and the musical components of rhythm, melody and tonality to provide a means of relating within a therapeutic relationship. In music therapy, people work with a wide range of accessible instruments and their voices to create a musical

language which reflects their emotional and physical condition; this enables them to build connections with their inner selves and with others around them.

Music therapists support the client's communications with a bespoke combination of improvised or pre-composed instrumental music and voice, either sung or spoken. Individual and group sessions are provided in many settings such as hospitals, schools, hospices and care homes, and the therapist's approach is informed by different theoretical frameworks, depending on their training and the health needs which are to be met."

This statement allows that music may have an inherent therapeutic effect on the psyche, although more direct effects on the physical body are not mentioned. Whilst again referring to the therapeutic relationship, it embraces both sides of what has been a potential division within professional music therapy over the question of whether the clinical relationship or the music in which it is embodied is ultimately the healing agent in music therapy (Darnley-Smith, 2013, pp. 27-29). Most importantly for this study, the statement recognises the importance for the client of relating to the inner self and to those around him, and not only to the therapist. TSII focuses on the client's direct relationship with an assistant rather than his indirect relationship with the therapist, and therefore accords better with this more recent definition than with the earlier BSMT definition.

3.1.3. Music therapy to foster relationships other than with the therapist

In individual music therapy, regardless of whether improvisation is used, the therapeutic relationship developed is usually that between the client and the therapist. A more complex situation may pertain when there is a co-therapist, most notably in the original model of Creative Music Therapy (Nordoff and Robbins 1977; 2007; Aigen 1998; 2005a), in which the co-therapist, rather than the therapist at the piano, was often the child client's main *social* interaction partner, although the intention was still to develop the child's relationship to the music, principally but not exclusively the music of the therapist at the piano (Fachner, 2007).

In inter-professional co-working (Twyford and Watson, 2008) the music therapist may or may not be the client's main interaction partner, depending on the model adopted. In music therapy for groups of clients (Davies and Richards, 2002; Goodman, 2007), which may entail two music therapists working together, the focus may be on relationships between client and client or client and group, rather than between client and therapist(s).

Oldfield and Flower (2008) provide accounts of varied music therapy approaches with children in which (a) family member(s), most often the mother, is included in the therapy. Such family members may play a crucial role in the child's therapy but are neither clients nor co-therapists. A family member may be treated as the main interaction partner for the child, and if so the situation resembles TSII, except that in TSII the interaction partner is an assistant. Chapter 4 provides a fuller discussion of the assistant's role.

3.2. Music therapy and education

I developed and practised TSII whilst working for three special schools, drawing on extensive experience of providing music therapy in the education service. It is therefore appropriate to consider the relationship between education and music therapy as disciplines, and between education providers and the music therapists they employ. A growing proportion of school music therapy is found in the mainstream sector, not only with learning-disabled students as they are increasingly included in mainstream settings, but also with students having a range of social and emotional difficulties (Brackley, 2012; Derrington, 2012; Diamond, 2012). However, as TSII was specifically developed with students who were developmentally very young, I shall here only discuss the role of music therapy in special, rather than mainstream, education.

3.2.1. Similarities between music therapy and music education for PMLD students.

The education provided by schools to children and young people with PMLD is predominantly developmental, rather than academic or vocational. As music therapy for this client group is also informed by developmental models, it is not surprising that there should be an overlap between the content of music therapy sessions and that of music lessons for PMLD pupils, nor that some headteachers should view music therapy as a form of 'education through music' (Ockelford et al., 2002). Wilson (1991) confirms that music therapy fulfils educational requirements for these children, since musical experiences stimulate developmental learning, and quotes (p.17) Nocera's (1979) view that "unlike music education, music therapy uses music to develop non-musical goals". However, this statement overlooks music *education's* contribution to the attainment of non-musical goals. The first draft for an English and Welsh National Curriculum in the late 1980s (seen by this author soon after publication but withdrawn when the definitive version appeared) proposed the inclusion of music education in the compulsory curriculum because of its wider value in developing non-musical social skills of communication, co-operation and what has come to be known as emotional intelligence (Goleman, 1996). Witkin (1974) had already argued for the teaching of creative arts in general on the same grounds. Ockelford

(2008) points out that the reason the broader potential of music education is seldom fully realised, particularly in special education, is a lack of adequately skilled and trained staff. Teachers of PMLD pupils, unlike music therapists, may lack specialist knowledge of music, with the result that music therapists are often regarded as the best available providers of music education for PMLD pupils and therefore diverted from a therapy to a teaching role. The music therapy groups in which TSII was developed, however, were intended by the commissioning schools not as music education but as therapy, as an element in an inclusion programme designed to further the social and emotional development of senior students (1.1.1.)

3.2.2. Learning-disabled pupils' need for a developmental music curriculum

Ockelford (ibid.) provides a model of the musical development of children with PMLD and SLD, informed by research in the developmental psychology of music. From this he creates a more coherent and more exclusively music-focused assessment system than the “p levels” created by the Qualifications and Curriculum Authority (2009). Ockelford uses his model to chart pupils’ progress and plan schemes of work for both “education *in* music” and “education *through* music”. The former constitutes the pupils’ statutory music educational curriculum and Ockelford explains that its purpose is to develop pupils’ “reactive”, “proactive” and “interactive” musical skills; the latter refers to using music to support the acquisition of non-musical skills in other curricular areas. Such “education *through* music”, in treating music as means rather than end, shares some common ground with educational aspects of music therapy for children with PMLD. However, Ockelford’s model, being addressed to the education community, makes little mention of improvisation and defines developmental aims educationally rather than therapeutically.

3.2.3. The music therapy – music education interface

Many music therapists in schools are reluctant to take on a music educational role, fearing that this may lead to a blurring of boundaries between the two practices and threaten the effectiveness of music therapy. Hall (2012) suggests, however, that in her experience this danger has been overstated. She describes working as both music therapist and music teacher in the same school and finding the disadvantages less serious than first expected. She also points to benefits for her work in both roles. As a music teacher of special needs children, her therapeutic skills enhance her teaching both of children who also receive music therapy and of those who do not. She is also able to identify, during music lessons, those children who would benefit from a music therapy referral. Children receiving both

therapy and teaching become “aware of the differences between the sessions and quickly show an understanding of what is taking place” (p.78) so that confusion is not an issue.

The cross-fertilisation between the roles of music therapist and music teacher described by Hall (ibid.) depends on maintaining the distinction between the two disciplines without diluting or restricting either. By contrast, Robertson’s (2000) proposal for an alternative route to qualifying as a music therapist, to be taken in modular form by special needs teachers intending to work only in the education sector, could be seen as narrowing the scope of music therapy training and thus of music therapy. Woodward (2000), a music therapist required by her school to teach the music curriculum, responded to Robertson’s proposal by pointing out that a music therapist needs:

“an awareness of the psychodynamics of the relationship, including transference and countertransference. One cannot assume that because an educational music therapist would only work in educational establishments therapeutic awareness and understanding could be reduced”. (p.96)

3.3. Music therapy and developmental psychology

Human beings are uniquely complex organisms and the social and cultural world into which they enter from birth is similarly complex. The term ‘developmental psychology’ refers to the study of human psychological development from birth and before into adult life. The term ‘developmental psychology of music’ refers to the narrower project of understanding how perceptual, cognitive and executive abilities traditionally regarded as musical develop (Hargreaves, 1986). Both the wider and the narrower discipline are of interest to music therapists.

3.3.1. Music therapists’ interest in the developmental psychology of music

Music therapists working with PMLD clients need an understanding of the normal developmental psychology of music. Dunachie (1995, pp. 288-295) explains the importance of discovering the musical developmental stage of a person with a learning disability by analysing their expressive and receptive musical abilities (which may well not be identical) in order to ensure that the musical experiences provided are of a complexity the client will be able to perceive and understand. Wetherick (2009), concerned that the students he lectures on a UK music therapy Masters programme should understand the importance of considering clients’ musical developmental stage, reports that he refers in his teaching to Ockelford’s (2008) developmental scheme, having found nothing comparable written by a music therapist. He draws attention, however, to Ockelford’s

finding that music education, even when developmentally informed, seems less effective in promoting interactive than reactive and proactive musical skills. This specific weakness in the interactive domain makes the case for offering music *therapy* to developmentally delayed clients, even when their mental health and emotional well-being are not currently a cause of concern and their needs are mainly social and developmental. By attending to social and emotional as well as cognitive and ‘executive’ development, music therapy fulfils a prophylactic role in reducing vulnerability to later emotional and behavioural problems and mental health issues. The use of TSII illustrated in this study does not include any work with seriously mentally disturbed clients, for whom I believe it would be inappropriate.

3.3.2. A psychoanalytic view from mother-infant observation

For music therapists, a psychodynamic understanding of development and its vicissitudes is important for both diagnosis and treatment. An effective experiential method of gaining this understanding is mother-infant observation, included by several approved training programmes in the UK. The rationale is explained by Sobey and Woodcock (1999, p. 132) and by Bunt and Hoskyns (2002, pp. 170-171). Students observe a mother and young baby in a naturalistic setting by visiting the home for an hour a week. By sharing their experiences in group supervision, students learn about the wide range of normal variation in both infant temperament and child-rearing style and competence, and some of the potentially pathogenic developments in the mother-infant relationship that can occur. They also learn the use of the countertransference – identifying and understanding their own feelings as a route to understanding the feelings of the mother and infant they are observing. Owing to the life-long influence of early experience (Gerhardt, 2004; Music, 2011), insights gained from mother-infant observation can inform therapeutic work with people of all chronological and developmental ages and all mental pathologies, including work with mothers and infants and work such as TSII with dyads consisting of assistant and client. It is the therapist’s role to apply these insights to therapy. The assistant in TSII, like the mother in mother-infant psychotherapy or music therapy, is not required to develop a comparable theoretical understanding.

3.3.3. Musical characteristics of early interaction

The previous section was concerned with the relevance of early interaction patterns to therapeutic relationships in general. A second, distinct reason why music therapists are interested in early development is the empirical evidence of quasi-musical features of mother-infant interaction (Stern, 1977/1997). The resemblance between “infant directed

speech” (Music, 2011, pp.101-102) and music has been cited in attempts to account for not only the effectiveness of music as a therapeutic medium (Trevarthen and Malloch, 2000) but also the expressiveness of music in wider non-clinical contexts (Juslin and Timmers, 2010). Shoemark’s (2010) work with medically fragile neonates illustrates the potential continuum between empathic vocalisation with melodic contours resembling those of infant-directed speech and a more developed singing style into which her vocalisation sometimes evolved.

3.4. Music therapy for people with learning disability

Music therapists have worked in learning disability since the beginnings of the modern profession (Bunt and Hoskyns, 2002; Wigram, Pedersen and Bonde, 2002; Darnley-Smith and Patey, 2003). UK professional training programmes require a student to work in at least one clinical placement with an individual or a group with learning disability, and normal and abnormal human development is among the theoretical modules studied.

3.4.1. Definition of client groups according to primary disability

Music therapy practice may be classified by client group, as distinct from theoretical model. Three of the major client groups are people with physical disorders, people with mental disorders and people with learning disability. Although there is often co-morbidity, one disorder or disability is usually treated as primary, and this may determine not only where the client receives therapy (e.g. hospital or school) but also the type of therapy on offer.

Hooper et al. (2008a; b) review the English language literature on music therapy and learning disability, covering over six hundred items including surveys, descriptive and philosophical writing and experimental studies. The review does not include work with children and their families (Oldfield, 2006a; b; Oldfield and Flower, 2008) which I shall therefore consider separately. In drawing on the exhaustive survey by Hooper et al. (ibid.), I shall only consider in any detail items relevant to TSII, which are those involving improvisational methods and the development of interactive behaviour within an interpersonal relationship.

3.4.2. Global developmental outcomes of music therapy for learning disability

Although music therapy goals and outcomes for learning-disabled people are diverse, they are inter-related by their common emphasis on fostering developmental progress. Meadows (1997) lists six general music therapy goals which share a dependence on the development of physical, emotional, cognitive, social and communicative skills. Of

particular interest for the study of TSII is the goal of “establishing or re-establishing interpersonal relationships” (p.4).

A similarly holistic view is evident in Juliet Alvin’s description (Hooper et al. 2008a, p.2) of how children, including some with severe intellectual impairment, responded to her short live cello recitals. These responses included increased engagement and desire to participate, improved self-control and self-confidence. More recently Sutton (2002) reports that advances in social skills, turn taking, concentration, and interaction are often seen when children who are accustomed to being segregated or avoided find themselves welcomed and valued in a music therapy session.

3.4.3. Music Activity Therapy

‘Music Activity Therapy’ is used by Hooper et al. (ibid.) as an umbrella term for all music therapy approaches in which the client is engaged in activities with a predetermined musical content designed to foster sensorimotor, perceptual, cognitive, emotional, or social skills (Bruscia, 1998a). Beyond that the term is not used to denote a specific approach. Hooper et al (ibid.) found that accounts of Music Activity Therapy outnumbered those of both receptive approaches and improvisational music therapy, but I consider it possible that the relative ease of describing and systematically evaluating work where the client’s activity is pre-defined, compared with improvisational music therapy, may have skewed the coverage in the literature towards music activity therapy, thus over-estimating its prevalence.

Music activity therapy with pre-determined musical content and therapeutic aims may be combined with elements of improvisational music therapy. Wigram (1988) describes a flexible mix of familiar pre-determined musical content, such as a greeting song, and activities involving improvisation, which remains typical of music therapy provision for the learning-disabled in English speaking world (Loth, 2008, p.56; Oldfield, 2006a, pp. 138-144; Sutton, 2002, pp.193-197; Woodward, 2000, p.95). In the group music therapy sessions from which the present study arose, I found that a mixture of Music Activity Therapy and of Improvisational Music Therapy was often clinically indicated, and that each approach frequently included aspects of the other. This is because a pre-determined musical activity needs to provide space for musical improvisation, by both client and therapist, if it is to engage the client and respect his or her contribution, rather than becoming a straightjacket. Conversely, the therapist’s improvised music often draws on elements of pre-composed music in familiar idioms, especially in the early stages of work, to give the client confidence to engage with improvised music.

3.4.4. Musical Interaction Therapy

Musical Interaction Therapy (Wimpory, Chadwick and Nash, 1995; Wimpory and Nash, 1999) is cited by Hooper et al. (ibid.) although it was developed without the involvement of music therapists and its originators distinguish it clearly from ‘traditional music therapy’. The title refers to the musical support of social interaction between an autistic child and a parent or carer by a person repeatedly described as a ‘musician’ and once as a ‘therapist’ but never as a music therapist. The authors say little about the *character* of the supporting music, other than that it should be responsive, in terms of both temporal structure and intensity, to the behaviours of the child and the interaction partner. Play routines, set songs and short simple rhymes are used, and flexibility in the performance of pre-composed music, rather than truly improvised music, is advocated. There are however more precise statements about the *function* of the supporting music which are highly relevant to the way I used it in TSII. For example, Wimpory, Chadwick and Nash (ibid.) write of a three year old severely autistic girl interacting with her mother, that

“The musician’s role was similar to that of the pianist accompanying silent films. The music reflected the mood, timing and meaning of the dyad’s activities [...] the (harp) music became quieter if the child avoided her mother and more exciting if she approached her – gradually reaching a crescendo with the climax of dramatic games [...] Support for the timing of interaction may [...] highlight maternal behaviour, making it more predictable and thereby facilitating, but not training, social participation...” (p. 543)

Wimpory and Nash (1999) further explain that

“The aim of musical interaction therapy is to elicit and develop whatever sociability the child may have, by the music providing playful opportunities for the child and familiar adult to tune into each other and experience a shared focus through the creation of a musical dialogue. The live accompanying music enhances both the carer’s behaviour and the child’s perception of it [...] the music is part of any interaction in both making meaning more overt and holding the sequence together.” (p.18)

These are among the reasons why music is an effective support of client-assistant interaction, not solely in working with autistic children, but in any situation where pragmatic interpersonal skills need to be developed. The above accounts bear a clear resemblance to how I have used music in TSII.

3.4.5. Improvisatory music therapy

Improvisation has always figured prominently in UK music therapy training. Juliet Alvin, who headed the UK's first training programme, developed 'free improvisatory music therapy' (Bruscia, 1987) and Sybil Beresford Pierce, an early disciple of Nordoff and Robbins, led a training programme which promoted their approach of 'Creative Music Therapy' (Bruscia, *ibid.*). The developmentally and psychoanalytically oriented programme set up at the Roehampton Institute of Higher Education maintained the emphasis on improvisation as a prime medium of communication for both therapist and client. All subsequent professional training programmes in the UK have placed emphasis on live improvised music and also, to varying extents, on psychoanalytic understanding. A thorough coverage of both elements in training programmes has always been recommended by the professional association, on whose advice in 1997 it became a requirement for approval of training programmes by the Council for Professions Supplementary to Medicine (CPSM) and its successors, the Health Professions Council (HPC) (Health Professions Council, 2007) and the Health and Care Professions Council.

3.4.6. Psychoanalytically informed yet music-centred improvisatory music therapy

Although some practitioners of Creative Music Therapy (Ansdell, 1995; Aigen 2005b) maintain that the therapeutic process can be understood in musical terms without recourse to psychoanalytic theory, others (Brown, 1999; Tyler, 1998) regard a psychoanalytic understanding as equally relevant even when musical improvisation rather than verbal exploration is the medium for intra- and inter-personal processes in therapy. In a case study of the use of Creative Music Therapy informed by psychoanalytic theory with a boy with PMLD (Steele and Leese, 1987) the authors pay detailed attention, with the aid of musical transcriptions, to musical features as the key to understanding inter- and intra-personal psychological processes, as did Streeter's (1999) chapter on the use of the musical countertransference in adult individual therapy. In both cases the work could be described as psychoanalytically informed and yet all the insights gained spring initially from detailed reflection on aspects of the improvised music.

3.4.7. Improvisatory music therapy with profound or severe learning disability

Hooper et al. (*ibid.*) point out that progress, in many case studies describing advances in social and communicative skills in people with learning disability, appears to have depended on "... redirecting, or reducing, challenging behaviour(s)" (p.28). Other writers, however, place the emphasis more on understanding the meaning of the behaviours, as

recommended by Lovett (1996) to all who work with the learning-disabled. Ritchie (1991; 1993) provides vivid case studies of improvisatory music therapy with profoundly learning-disabled and institutionalized individuals whose challenging behaviour she was gradually able to understand and respond to with empathy. Nicholls (2002) describes an improvisation group in which adolescents with severe learning disability "explored their roles", "worked on emotional issues", and "developed some important social skills" (p. 244). Darnley-Smith and Patey (2003) describe the experience of sharing which arose among members of an adult group with PMLD (pp.121-137). Graham (2004) discusses the role of pre-verbal vocal communication with PMLD clients, using an approach derived from early mother-infant interaction, and notes that even vocalizations without communicative intention can be acknowledged and brought into the interaction. One of the functions of TSII, which is also reminiscent of Intensive Interaction (2.2.7.), is to encourage LSAs to incorporate students' behaviours into an interactive dialogue.

3.5. Receptive music therapy

The majority of the references to receptive music therapy reviewed by Hooper et al. (ibid.) are to behavioural music therapy in which preferred music listening is made contingent upon desirable client behaviour. This approach has little in common with TSII and will therefore not be discussed here. It is only when music listening is non-contingent that one can surmise that characteristics in the music itself may be therapeutic, rather than the music simply acting as a reward after the performance of a desired behaviour. None of the video examples of TSII in the present study depicts receptive music therapy, since all show students either playing or being assisted to play instruments. But although in TSII listening is not the main focus as in receptive music therapy, hearing (if not necessarily listening to) the music of the therapist and sometimes of the LSA is an important part of the student's experience which makes it possible for the improvised music to influence the participants.

3.5.1. The advantage of live over recorded music

The studies of music listening reviewed by Hooper et al. (ibid.) overwhelmingly involved the use of electronically reproduced music. The reviewers report that music chosen to have a sedative effect was shown by several studies to reduce anxiety, restlessness and a number of undesirable behaviours, but that findings in other areas such as attention were often inconclusive or contradictory. The smaller number of studies of the use of live music found that it held clients' attention better than recorded music, but Hooper and Lindsay's (1997) statement (p.173) that participants "respond better to the attention of an individual"

reminds us that the physical presence of the therapist is a salient factor, as well as the fact that the music is live rather than recorded. Odell (1988, p. 84) states that the use of recorded music “cuts down the intensity of the interaction between patient and therapist”.

3.5.2. Physiological and psychological responses to music

Hooper et al. (2008b, p.30) state that when non-contingent musical stimuli trigger physiological responses such as changes in heart rate, breathing, galvanic skin response or endocrine function these effects are the result of a prior psychological response to music, which they describe as a mood state. Music therapists whose main interest is in psychological rather than in physiological responses, however, may nevertheless, like music psychologists (Hodges, 2010), study the latter as a proxy for the former. The conflict between this view of the sequence of response to music and the theory of emotion, originating from William James, which attributes feelings to awareness of physiological responses, is more apparent than real, since the psychological response which precedes the physiological manifestation may be a primitive, sub-cortical appraisal. LeDoux (1996) has shown that the first appraisal of an incoming stimulus, which may trigger physiological, psychological and behavioural responses, occurs before cortical appraisal has identified and evaluated the stimulus. This makes it plausible that people with both normal and impaired intelligence can respond emotionally to at least some aspects of music without cortical appraisal or conscious awareness of the process. It is thus not unreasonable to claim that the interacting partners in TSII may be influenced by the improvised music when not attending to it, or even aware of it.

3.5.3. Entrainment to live music

Wigram and Weekes (1983) explain how live music can be used to support physiotherapy for profoundly disabled clients at risk of developing fixed contractures. The music provided for ‘Music and Movement’ must synchronise with the movement to be performed in order to support and guide it. Musical patterns and the expectations they create encourage the clients to relax during passive movement and eventually to co-operate with assisted movement. Entrainment, which London (2012) has shown to be a form of sensori-motor attention, may have been among the processes at work in the episodes of TSII depicted in some of the video clips in the present study. This is a perceptually mediated form of physical entrainment to music, rather than the neurologically mediated physical entrainment found in rhythmic auditory stimulation (Thaut, 2005) which occurs because of the interconnectivity at various levels of the central nervous system between the auditory and the motor system.

3.6. Music therapy with children and families

Because of the link between early development and work with people with PMLD (2.1.6) music therapy with children and families may have relevance to the study of music therapy with teenagers with PMLD and their learning support assistants. Sobey (2008) notes that although music therapy involving parents and other family members is widespread in the UK, literature on the subject has until recently been sparse. She cites Chazan's view that

“.....there might be a fear of disapproval when breaking with traditional methods of practice (which) might lead practitioners to avoid public discussion of such innovations until their ways of working became more established.” (p. 12)

3.6.1. Music therapy for children and their mothers

Oldfield (2008) tells how, after 17 years of working with children individually, the first occasion she invited a mother into a session was a pragmatic decision taken when she was faced with a child who refused to enter the room without his mother. Since then the involvement of mothers and other family members has become her normal practice. It allows her, and other music therapists working in this field, to experience at first hand how mother and child relate, and work with the mother as well as the child to resolve relationship issues which so often impinge on a child's development. By allowing mother to join in musical games and interactions, it is possible to draw her attention to positive aspects of her mothering which her anxiety about her child has prevented her from recognizing, and to support her in developing these aspects further. This is reminiscent of the supportive approach taken in Video Interaction Guidance and Interaction Guidance (2.2.4 and 2.2.5.).

This supportive approach could be thought of as the therapist creating a bridge between parent and child, but the converse may also be true. Oldfield (2006a) quotes a mother after she and her young autistic son completed a course of music therapy:

“Initially the parent can act as a bridge between the child and the music therapist, the relationship of trust between the child and the parent enabling some form of connection between the child and the therapist... The parent knows the child. The therapist is a specialist who knows how to use techniques... They need each other to provide the best set-up for that particular child....” (p. 60-61)

Learning support assistants involved in TSII could similarly be seen as bridging the gap between the student and the therapist, although my focus in this study is how the therapist's music can bridge the gap between the student and the LSA.

Drake (2008) writes that

“Early infant-parent interaction takes on a musical form of expression (and when) intuitive musical engagement between a mother and infant fails to take place..... music therapy can provide an appropriate opportunity to recreate this vital process of attuning to one another, for both child and parent, through shared experiences of timing, rhythm, pulse, melody and pitch ... The journey is therefore equally important for both of them, despite the frequent perception that ‘this is for my child’ ” (pp.41-42)

Several of the learning support assistants interviewed (chapter 8) saw TSII as being just for the students, despite reporting that they themselves had found the experience of interacting with the student moving and enjoyable.

3.6.2. Involvement of non-disabled siblings

Loth (2008) describes a music therapy group for families with a learning-disabled toddler in which

“a variety of activities is used, including group and individual improvisation, action songs, drum games, musical dialogues These activities can be very structured or relatively free, requiring passive or active involvement. They involve pair work with the mother and child, or the therapist and child, just the children together and whole group activities. The sequence of the session is not pre-planned but is led by what is happening in the group at the moment, what is therapeutically appropriate, and also what the children and families choose to do.” (p.56)

It is interesting to note that this pair work with the mother and child arose naturally and spontaneously as one of a series of varied activities during a session, as did the pair work with LSAs and PMLD teenagers in the setting in the present study.

3.7. Summary and implications for the research topic

TSII is a music therapy approach using music as a means of communication and self-expression. Therapy occurs in the context of a relationship which develops with the support of improvised rather than pre-composed music. TSII is one of several approaches in which a person other than the therapist is the client's main interaction partner, but the other such approaches generally involve either other professionals or family members or carers.

TSII evolved as one element in music therapy provision for profoundly disabled teenagers in an educational context. A common feature both of music therapy for people with PMLD and of music education is the relevance to both of an understanding of the developmental psychology of music. Music education has some extra-musical aims in common with music therapy, but music therapy is more effective in developing interpersonal interaction. In TSII, interpersonal interaction is the chief area addressed.

Interactive music therapy depends on an understanding of early musical development so that the music used may be pitched at an appropriate developmental level. It also benefits from a psychoanalytically informed understanding of the potential vicissitudes of early development, which trainee music therapists acquire through supervised mother and baby observation. Specifically musical aspects of mother-infant interaction, which may partially explain the expressive power of music generally, are exploited naturally in the interaction between assistant and PMLD student with the support of the therapist's music.

In the field of music therapy for learning disability, the greater volume of literature about music activity therapy compared with that about improvisational music therapy may over-estimate the actual preponderance of music activity therapy. Various improvisatory approaches which may be used with individuals and groups with learning disability, including profound disability, are taught on all UK training programmes.

Psychologically mediated motor entrainment to music has been demonstrated, and may explain some of the influence of improvised music on motor behaviour in TSII. Live improvised music which can be responsive to the client is used in TSII, which contrasts with the directive approach of musical activity therapy and the recorded music which dominates receptive music therapy and, except in the special case of GIM, tends to use music as a contingent reinforcement.

Music therapy with children and family members, especially mothers, has expanded greatly in the last two decades but this has taken a while to be reflected in the literature. Work with a mother and child is perhaps the closest parallel to TSII, and its effectiveness strongly suggests that an approach such as TSII is an appropriate way to address the important relationship between client and assistant.

Chapter 4: The role of assistants in music therapy

In this chapter I examine evidence in the literature of ways in which non-professional assistants are currently used in music therapy. I note that the use of assistants who are neither fellow professionals nor family members is very poorly documented and suggest possible reasons for music therapists' apparent reluctance to write about the use of assistants. I then summarise the findings of two recent qualitative studies of the use of such assistants in music therapy and music therapists' perceptions of the advantages and disadvantages of involving them.

I contrast the role of the non-professional assistant with that of the co-therapist as an equal collaborator in Creative Music Therapy, the role of the facilitator in Music and Attuned Movement and the growing practice of joint working with other members of the professional multi-disciplinary team.

Finally I briefly outline the role of learning support assistants in music therapy sessions in schools, and discuss the special case of using them as interaction partners.

4.1. The scarcity of references to assistants in the literature

Hooper et al's (2008) survey of music therapy in the field of learning disability makes no reference to the role of non-professional assistants, although it does refer to co-working with physiotherapists and speech and language therapists. Several recent text-books which include information on group music therapy and on learning disability (Davies and Richards 2002; Wigram, Pedersen and Bonde 2002; Goodman 2007; Watson 2007; Twyford and Watson 2008) do not contain the word "assistant" or any synonym in their indices, although there are occasionally oblique references to the possibility of their presence in sessions. In Tomlinson, Derrington and Oldfield's (2012) edited compilation on music in schools, mine is the only chapter to discuss the use of assistants.

The situation is similar for papers in journals. I conducted a search of the following databases: AMED, CINAHL, ERIC, JSTOR, Medline and Psychinfo, using the search terms "music therap*" and "assistant", "helper", "support staff", "escort" and other synonyms, without success. It is possible that there are references to the use of assistants which were not revealed by the database search because the search terms did not appear in either titles or keywords. However, it is unlikely that the use of assistants is seen as a significant factor in therapy by any author who does not mention them in either title or keywords.

Why do music therapists who have worked with assistants not write about it? Silence on a topic does not necessarily indicate that one is either ignorant or dismissive of it. One might be acutely aware of it but anxious about the possible effect of broaching it. One reason for such caution might be that music therapists attach great importance to maintaining boundaries in order to carry out therapy effectively and safely. The therapy room is often referred to as a "safe space" (Diamond, 2012 pp.141, 149; Twyford and Watson, 2008, p.195) for the exploration of feelings whose free expression may be difficult in other contexts. Part of the feeling of safety provided derives from privacy and part from the maintenance of other boundaries which, though different from those for example in the classroom, must be consistent to be effective. Many music therapists are justifiably concerned that assistants in sessions might breach confidentiality, or fail to adapt to unfamiliar boundaries. Such problems may be reduced by careful attention to the briefing and debriefing of assistants, so that they understand their role. Threats to therapeutic work are manageable provided there is open discussion to foster greater understanding. During the 1990s, the members' handbook of the Association of Professional Music Therapists (no

longer available) contained a page of advice to music therapy assistants. The main themes were:

- the importance of the child's inner world and of allowing time to assimilate experiences, time to respond and the option of not responding
- the acceptability of difficult feelings and their expression, provided no-one is in danger of being harmed
- the need to listen with respect and interest to the children
- that music therapy is a process, and not intended to lead to a musical "product"

Little was said about active involvement of the assistant in the music making or in any other aspect of the therapy, either to commend or to caution against the practice. However, the guidance was purposely succinct and only intended for assistants in the more usual role of simply assisting.

4.2. Evidence of interest in the topic amongst trainee music therapists

Two recent studies have focused on the use of non-professional assistants in music therapy. Both were dissertations written as a requirement of Masters level professional training programmes. Schmidt-Robyn's study in 2006 was subsequently made into a short book (Schmidt-Robyn, 2008) but Munro's (2011) study remains unpublished. Both investigate the use of music therapy assistants from the music therapist's point of view. Munro (*ibid.*) ranges wider by giving equal consideration to the benefits and potential problems for the assistants and for the clients, as well as for the therapist, although in the time available for data gathering she was only able to interview therapists. She also places work with non-professional assistants in the broader context of other work in which a third person is present. Schmidt-Robyn (*ibid.*) used interviews and a questionnaire to determine how widely assistants are used, the various roles they may take and music therapists' views on the effects of their presence. Writing for a general readership, she does not describe her research method in much detail. She states (p. 15) that "the assistant's presence will almost always challenge our conventional ideas about music therapy and the therapist's role." She found that music therapists were roughly equally divided between those who regarded assistants as partners in the therapy, those who regarded them as observers and those who adopted either view according to circumstances. Some would allow assistants to play instruments or contribute in other ways, but very few would actually encourage such participation. Two respondents did not believe the therapist should acknowledge an assistant's presence in any way.

In many cases there was a difference between the intended and the actual role taken by the assistant. For example, an assistant might be present for a number of reasons, not originally including playing any part in the therapy, and yet be drawn into the therapy by the client. An assistant asked to support and assist a client to participate might interpret this role in a more directive and perhaps restrictive way than the therapist intended. Despite stating (p. 17) that a possible role for an assistant might be that of another client, leading perhaps to therapeutic work on the relationship between assistant and client, Schmidt-Robyn (*ibid.*) does not explore this approach in any detail. (TSII focuses on this relationship, but without going so far as to regard or treat the assistant as a second client.)

Munro's research methodology is clearly described in her study and involved semi-structured interviews with five purposively selected music therapists of different degrees of seniority, working with varied client groups and trained on three different professional programmes. Her data analysis generated a clear structure of themes and sub-themes, often very similar in content to Schmidt-Robyn's findings. A most valuable outcome of her study is a comprehensive series of guidelines to assist therapists in training, managing and making the best use of assistants, although she stresses that these are provisional and should be trialled and reviewed by other therapists.

The present study has a narrower focus than both Schmidt-Robyn's and Munro's in several respects. It only considers evidence from my own clinical work, and only that with profoundly disabled teenage clients without significant emotional-behavioural difficulties or mental illness, seen in a group setting. It focuses on the use of improvised music in support of the relationship of client (teenage student) and assistant (learning support assistant) and considers group dynamics mainly as they impact upon that process. However, the findings of the online survey (chapter 7), whose questions (Appendix 2) covered a wider range, accord closely with the findings of both Schmidt-Robyn and Munro.

4.3. An early example of the involvement of other staff in group music therapy

In an informal interview Wigram (2011) spoke frankly about his early work in a large mental disability hospital, where a pre-requisite for establishing the value of the work was showing staff how music therapy could elicit interactive behaviour as well as providing enjoyment to the often withdrawn and institutionalised patients.

“I would organise it so that we could have a session where other staff were joining with it and starting to realise what was going on with the clients, and that they could engage with the clients as well. So I didn't see

any ethical problem with this actually, because I was helping these clients and the staff to get together.”

At first the prime objective was clearly the education of staff, who were not yet familiar enough with the approach, to act as the therapist’s assistants in the usual sense of the word. This education was accomplished by offering them the experience of actually engaging with the work by interacting with the patients. As their confidence grew, they would be helped to focus on individual patients’ needs by careful guidance:

“I taught them and I encouraged them, and I said: ‘Well, you don't have to do anything you don't want to do’ that's the first thing. ‘But I'd love you to join in with this and to enjoy it.’ So I used them as co-workers, co-therapists.....”

In this recollection of work conducted many years earlier, Wigram still clearly stands by the approach he describes. He reports that he was unperturbed when a respected senior music therapist who viewed video of this work protested that this was playing and “not real therapy”.

4.4. Other accounts of work using assistants

4.4.1. A spectrum of involvement

Bull and Roberts (2005) present a theoretical model of the different levels of involvement of non-professional assistants in group music therapy, from the ‘practical assistant’, who is neither a consistent member of the group nor involved in reflecting with the therapist on the therapeutic process; through the ‘consistent assistant’, who attends each session but plays no part in the reflective process; the ‘reflective assistant’, who does share the reflective process despite not being assigned to the group on a regular basis; to the ‘consistent reflective assistant’, who is able to join the therapist in reflecting on the progress of therapy week to week. It is interesting, however, that in Bull and Roberts’s model even the ‘consistent reflective assistant’ is not expected to “contribute to the group, musically or otherwise, for example by musically improvising with clients” (p.3). This the authors only consider appropriate for two further levels of assistant, the ‘dynamic assistant’ who is also expected to be “involved in the dynamic administration of the group ... part of thinking about the style of work within the group, the client membership ... and the aims of the group” and the ‘co-therapist’, who, although not professionally trained, does attend joint supervision with the therapist. Active musical involvement is thus seen as appropriate only for assistants with a fairly advanced grasp of group dynamic principles. However, the model was developed in connection with practice in mental health groups,

where the requirement for joint supervision could be crucial. As explained in sections 1.1.2 -1.1.8., the client group and setting for which TSII was developed are very different from mental health group work, making a much more autonomous role for assistants not only possible but advantageous.

4.4.2. Generalisation of improved relationships between dementia sufferers' and care staff included in their music therapy

Music therapist Melhuish and dance-movement therapist Beuzeboc (Melhuish and Beuzeboc, 2011), by contrast, saw the assistance of care staff in a residential setting in sessions with elderly dementia sufferers as “an effective means of helping to improve relationships with residents”. In semi-structured interviews after a six week period of observing and assisting, care staff “described increased knowledge and understanding of the therapeutic approach, and development of their thinking, both of which contributed to changes in their approach to residents” (p.6).

4.4.3. Observation skills of learning support assistants in a special school

Stamenovic (2009) conducted semi-structured interviews with assistants working with non-verbal special needs students in a school setting and found that they were able to “observe and identify engagement, as reflected in the students’ non-verbal responses, such as body movement, eye-contact and vocalizations” (p.ii) in a way which confirmed the therapist’s intuitions as to the students’ communicative intentions. This skill was often evident in the work of the assistants whose work features in the present study.

4.4.4. A parallel process of change for institutionalised adults and their carers

Agrotou (1999) illustrates in film how the painful isolation of institutionalized residents of a learning disability hospital and the defensive detachment of their one-to-one carers were gradually overcome and transformed through music. She speaks of the ‘parallel process’ of change in residents and carers and describes the music, which was entirely improvised, as the vehicle of ‘awakening and bonding’. The assistants speak on the film of their astonishment at the hidden communicative abilities of the residents, and their sense of providing the stable base from which the residents could dare to move out and interact with their painful and frightening world. As the carers relinquished their defensive detachment they were subjected to many painful projections, and one of them states that it became harder to bear working with the residents. It is likely that they received thorough debriefings after sessions, but Agrotou does not mention any formal supervision.

The assistants were able to speak powerfully on the film about their experiences, without the use of technical language, despite the concentrated psychoanalytic focus of the therapist's understanding of the work, influenced by Klein, Alvarez, Foulkes and Tustin. The film shows carers sensitively playing instruments and encouraging residents to do the same, and at different moments each resident-carer dyad becomes the musical focus of the group and the visual focus of the film. Individuals' affective states are shared by the whole group and residents respond to each other's expression. The bonds formed between residents and their carers proved so beneficial to the residents that when two were able to transfer to a small group home, it was decided that their carers should also transfer, so as to remain with them.

4.5. Creative Music Therapy

Creative Music Therapy was developed by Paul Nordoff and Clive Robbins working together as a closely knit professional team of musician-composer and special educator (Aigen, 1998). Its exponents have continued to work in pairs when appropriate and possible, but many now work alone, especially with adult clients (Ansdell, 1995). When they work as a pair, the therapist at the piano typically takes the lead in engaging the child musically, and the co-therapist works more directly with the child (Bruscia, 1987), supporting, encouraging joint attention on an instrument, containing or challenging, intuiting the clinical intention of the therapist's music, rather than taking the musical lead.

Although the child may initially interact more readily with the co-therapist, (s)he will encourage the child to engage increasingly autonomously with the therapist's music, with the aim of developing a *musical* therapeutic relationship, engaging what Nordoff and Robbins term the "music child" (Nordoff and Robbins, 2007, pp. 3-4) which they believed had the potential to grow and develop, untrammelled by the disabilities affecting other aspects of the child's being. During therapy the therapist's and co-therapist's roles are distinct and complementary, but when later reflecting on the session, creating an annotated record and considering the future direction of therapy, they collaborate, sharing their understandings of the work and bouncing ideas off each other. Fachner (2007) carried out a qualitative study of the role of the co-therapist and the sophisticated amalgam of skills, practical, theoretical and intuitive, required to fulfil this role, which is normally taken by a second Nordoff Robbins trained music therapist. This model was developed to meet the needs of some very disturbed, traumatised and withdrawn children, some with profound disabilities. The model of TSII presented in the present study requires assistants with fewer skills and limited theoretical understanding. Whilst joint therapist-assistant

reflection after sessions would of course be beneficial, the clinical work presented shows that even when this is not possible the model can still be effective. Clients with profound disabilities and a degree of withdrawal can benefit, but the approach is contra-indicated for those with severe emotional or psychotic disturbance.

4.6. Music and Attuned Movement Therapy

This is an approach developed by Fearn and O'Connor (2008) for young children with profound disability including limited movement ability. The facilitator working with the music therapist may be a teacher, physiotherapist, occupational therapist or nurse, or sometimes the child's parent. Despite close collaboration, the lead is taken by the therapist.

“The music therapist mirrors, reflects, attunes and contains the child's input, both musical and physical, with improvised music. The aim is for the child to develop awareness that their movement and sounds are being acknowledged..... The facilitator aims to reflect and facilitate the child's breathing and movement patterns experiencing double feedback.... appears to hasten the child's development of awareness of self and self in relation to others.” (pp. 57-58)

By assisting the child in this way the facilitator is also assisting the music therapist, by detecting and physically facilitating movement intentions not visible to the therapist. Something of the same process can be observed in the first and fourth of the video clips of TSII investigated in the present study. Although the LSAs involved were much less thoroughly briefed than facilitators in Music and Attuned Movement Therapy, they were able to facilitate students' playing and seldom imposed inappropriate movement patterns of their own.

4.7 Collaborative working between music therapy and other professions

When a music therapist works with a member of another profession, the collaborators bring different theoretical understandings, different skills and probably different therapeutic aims, and a successful partnership will depend on negotiating which therapeutic aims they can share and work together to promote. In Wigram and Weekes' (1983) “Music and Movement” (3.5.3.) physiotherapy aides provide hands-on assistance to help a group of patients carry out a sequence of stretching exercises planned by the physiotherapist, while the music therapist improvises on the piano music designed to motivate and co-ordinate the movements and create a warm, encouraging and relaxing atmosphere.

Twyford and Parkhouse (2008) describe three models of collaborative work between music therapy and speech and language therapy. In structured joint sessions the speech and language therapist and music therapist

“....jointly developed specific activities which aimed to create opportunities for joint attention, anticipation, sustained eye-contact and spontaneous communication. Charlotte (speech and language therapist) led the sessions..... her role was vital in linking activities together..... Karen’s (music therapist) role was to use music to reflect and enhance the child’s participation, pace and level of engagement.” (p.63)

In semi-structured sessions with small groups

“..... an underlying theme was chosen to shape the session, and a few activities were used, loosely structured to allow for spontaneity..... Our roles as therapist in these sessions were more interchangeable. We shared responsibility for leading and facilitating the session and moved in and out of roles as need and situation dictated.” (p.64)

In unstructured sessions, usually for a single child

“.... The sessions were wholly unstructured to allow opportunities for interaction to evolve..... Any action, vocalisation or interaction that the child made was reflected and supported by the therapists..... During the session the therapists used eye-contact, gesture and discussion to determine which direction to take.” (p.65)

In the above examples, leadership may be taken by either party, but responsibility for deciding the clinically appropriate format for sessions is shared equally. It would therefore be inaccurate to speak of one therapist assisting or being subsidiary to the other.

4.8. The role of learning support assistants in schools

Learning support assistants (LSAs) in schools normally only undergo sufficient training to enable them to work effectively under professional direction, but not to make key decisions independently. Their training is designed to enable them to support pupils’ educational progress and also, where required, to perform supervisory and care duties. A music therapist working with assistants will almost certainly have different expectations of them from how educational line-managers would expect them to behave when carrying out educational or care duties. The music therapist must therefore appreciate the differences between the two roles and the difficulty of switching. He will be wise to acknowledge the existing skills of the assistants and the value of their greater familiarity with the children. The advantages and disadvantages of involving assistants in therapy generally, the extent

of their use and specifically of their use as interaction partners are explored in an online survey to be described in chapter 7.

LSAs are less likely than physiotherapy or speech and language aides to be asked to carry out a music therapy programme with the client between sessions, although they may provide other appropriate musical activities which do not require therapeutic training, such as those suggested for parents of disabled children by Streeter (2001). During music therapy sessions they can assist both the client and the music therapist in various ways. In the present study I investigate their involvement as interaction partners, supported by improvised music, but given a good deal of autonomy as to how to interact with the students.

4.9. Involving assistants as interaction partners

When an assistant functions as a client's interaction partner in TSII she may, although she is not a co-therapist, assist a child by offering physical hands-on assistance or physical, gestural or verbal prompting. However, the intention is that she should herself initiate and maintain an interaction with the student. This contrasts with the aim of enabling the student to realise her/his own spontaneous intention to move or play an instrument in response to the therapist as in Music and Attuned Movement Therapy (3.5). In TSII the assistant's interaction with the child is an end in itself, and not a staging post on the way to client-therapist interaction.

Allowing assistants this degree of independence changes, but certainly does not reduce, the importance of the therapist's music. Even though it is in a sense in the background, it can still be perceived and responded to by both assistant and client according to their individual musical awareness, as a stimulus and framework for their own interactive behaviour, musical or otherwise, and as an influence on mood and feeling. Its effect on mood and feeling it may be most potent, like that of film music (Cohen, 2010), when not consciously attended to. These musical-psychological effects, on the interacting partners individually and hence also on their interaction, are among the areas I investigate in this study.

4.10. Summary and implications for the research topic

The use of non-professional assistants in music therapy in the UK has twice recently been surveyed in terms of the interpersonal dynamics which result, but never so far as I am aware in terms of the musical role of the therapist in support of client and assistant, as in TSII. In the two-person model of Creative Music Therapy the co-therapist is always another music therapist, or one in training. In Music and Attuned Movement the person

interacting physically with the client has a degree of autonomy but works to precise guidelines and the lead is taken by the therapist providing the music. In inter- or trans-professional working, leadership may be the shared or sole responsibility of another professional.

The use of non-professional assistants in music therapy with people having profound learning disability is quite widespread and an online survey (chapter 7) has shown that music therapists are aware of both advantages and disadvantages, foreseen and unforeseen, of their involvement. Using an assistant as the main interaction partner has received very little attention in the literature but may not be as rare as this might suggest. The time to investigate TSII seems ripe.

Learning support assistants in music therapy need help to fulfil a role which contrasts with their educational and care roles. Their use as interaction partners in TSII is a departure from the more usual role of supporting the interaction between the student and the therapist. Although this approach gives assistants greater autonomy than other approaches as regards their interaction, musically and socially, with the student, the influence of the therapist's music remains, even when it is not consciously attended to. It is this influence which the present study will explore.

Chapter 5: The study of improvisatory music therapy

In this chapter I first distinguish clinical from non-clinical improvisation. I note the wide range of improvisation skills amongst both student and qualified music therapists and briefly discuss the implications for clinical practice.

I suggest possible reasons for the continuing tendency of writing on improvisatory music therapy (except in academic theses) to omit examples of actual music. I discuss the increasing use of micro-analytical techniques in researching music therapy and the need to ensure that quantitative approaches remain relevant to the realities of human perception and communication. Finally I point out the difficulty of demonstrating the clinical effectiveness of improvisational music therapy.

5.1. Some contexts for non-clinical improvisation in Western culture

Lee (1992) provides an extensive review of general definitions and philosophical views of improvisation and the various non-clinical contexts in which improvisation is practised in Western Society. The definitions and philosophies most relevant to music therapy are those viewing improvisation as an avenue for creative self-expression and interpersonal communication.

In Western music Jazz is a major genre in which improvisation, either free or more often based on an extended harmonic sequence, plays a central role. In the highly produced and ‘packaged’ but ephemeral music in the popular ‘charts’, improvisation is usually limited to the spontaneous and sometimes inadvertent introduction of variants and embellishments of the vocal melody. Aleatoric forms of art music may specify that performers improvise within certain parameters. Darnley-Smith (2013, p. 50) relates how a more radical improvisatory approach pioneered by Derek Bailey influenced Alfred Nieman (*ibid.* p. 27) who became an improvisation tutor on both of the earliest UK music therapy training programmes. In a more conservative vein, church organists may be required to improvise at various points in worship. Such liturgical improvisation may be free or derived from a theme such as the preceding hymn. Wigram (2004) advocates the term “extemporisation” to distinguish varying a pre-existing original from inventing completely new music, but the term is not widely used nowadays by other writers.

5.2. Clinical improvisation in music therapy

The term ‘clinical improvisation’ is not synonymous with ‘improvisatory music therapy’ but was coined to denote the very specific intention and purpose of improvisation by a music therapist in a therapy session. The Association of Professional Music Therapists, cited by Darnley-Smith and Patey (2003), defined clinical improvisation as “musical improvisation with a specific therapeutic meaning and purpose in an environment facilitating response and interaction”. The authors state (p.45) that “the relationship with the patient, through music, constantly needs to be held at the forefront of the therapist’s mind, informing clinical and musical intentions”. This is what distinguishes clinical from performance improvisation, where aesthetic, formal and expressive musical considerations take precedence. In both clinical and non-clinical improvisation, however, the creative process may be more intuitive than deliberate, drawing on unconscious sources and more akin to free association (Bollas, 2002) than to propositional thought. To allow unconscious processes to play this important role in the creative process of clinical improvisation, therapists may prefer to consider the needs of the client during their mental preparation

before the session and their reflection and note-writing afterwards, rather than making a conscious effort to micromanage their improvisation during the session.

5.2.1. Psychoanalytically informed clinical improvisation

Lee (1992) summarises the concept of psychoanalytically informed clinical improvisation as follows:

... largely free-improvisation, on and with the client's behaviour (musical or otherwise), and taking account of the therapist's countertransference ... (the) [t]herapist's musical output is informed ... according to psychoanalytic theories, and mother/infant interaction studied from both developmental psychology and analytic perspectives and by his/her musical experience, musical personality and understanding of music in societies. [order of text slightly re-arranged by the present writer] (p.73)

Odell-Miller (2001) explains how psychoanalytically informed music therapy, though drawing on psycho-analytic concepts to inform practice, need not in all cases involve verbal processing by or with the client, since music (by which the context suggests she means improvised music):

“can have a pre-verbal, a holding function, a supportive function, an ‘action leading to thought’ function, all of which can lead to some change that otherwise may not have occurred without the music.” (p.152)

Pedersen (2007, p.277) found that music therapists working psychoanalytically characteristically report that their first awareness of countertransference feelings arises from a change they notice in their own improvisation.

5.3. The musical skills used in clinical improvisation

5.3.1. Published training resources

Wigram (2004) explains and illustrates a compendium of technical skills which therapists should systematically work to acquire so that they can improvise in whatever manner will most effectively serve their therapeutic goals. His manual devotes four chapters to a graded introduction to the wide range of practical techniques and skills, including cognitive and executive skills required to create music with a specific style and structure which will simultaneously accommodate and support the client’s music. Wigram (ibid.) then provides a comprehensive coverage of the clinical applications of these skills. The many notated and audio-recorded examples feature parts for imaginary music therapy clients, role-played by

a fellow therapist. By using invented rather than actual examples of clinical work, the author is able to cover the field systematically and exhaustively. The intimate relation between therapist's and client's music is emphasised throughout but less is said about the needs of any client who might decide to remain silent.

'Healing Heritage' (Robbins and Robbins, 1998), an edited version of lectures by Paul Nordoff, takes the alternative course of illustrating the expressive effect of musical elements from the work of great composers. This may be supplemented by the actual clinical examples, notated and audio-recorded, in the second edition of 'Creative Music Therapy' (Nordoff and Robbins, 2007) and the recorded examples in Aigen's (1998) detailed commentary on a selection of Nordoff and Robbins' early cases. More recently, Lee and Houde (2011) provide examples from Western classical and popular music and the music of other cultures, with exercises for pairs of students in which one role-plays the client, with the intention of enriching the therapist's palette and drawing on the expressive potential of the genres of pre-composed studied to enhance the skills of clinical improvisation. Gardstrom (2007) by contrast mainly addresses techniques for developing improvisation in groups, and says less about the therapist's own music.

5.3.2. Professional training and continued professional development

All UK professional training programmes include, as part of their admission processes, an assessment of improvisatory skill and the potential for its development. All then provide specific training in improvisation, in which executive musical skills and their therapeutic application may be taught either separately or together. Qualified music therapists continue to develop their improvisation skills in the course of their clinical work, some by attending improvisation groups with or without a facilitator. The experience of improvising with other therapists, even if one takes the same care in listening and responding that one would take in a clinical situation, is a distinct experience with a different dynamic, as Brown and Pavlicevic (1996) discovered.

5.3.3. Deficiencies in specific pitch-based areas

It has been my impression, as a clinical supervisor, a placement supervisor, a student trainer and an examiner, that harmony and modulation are the least developed improvisational skills of many UK music therapists, even including some first study pianists. Because modulation and tonality have only played a dominant formal and expressive role in Western music from the high Baroque to the late Romantic period, fluency in handling these elements is mainly acquired through the academic exercise of

“composing in styles”; through analysing, editing, arranging or conducting music of the era in question (but not so much by simply learning to play it or listening non-analytically); through improvising in contexts such as church services, where a conservative idiom is still dominant; and through the practice of composing pastiche, for example for televised period drama. Therapists who have had none of these experiences may as a result have only a modest command of harmony and modulation, but may be able to compensate for this and provide variety and expressiveness through the use of other musical elements.

5.3.4. Implications of skill level for clinical practice

Despite sustained attention both during and after professional training to developing the necessary skills, there exists amongst the profession a wide range of proficiency in improvisation. Music therapists inevitably vary in their improvisatory skill as a result of varying innate ability, musical experiences from earliest childhood and subsequent experience. This need not be a cause for concern. Different clinical situations call for greater or less emphasis on improvisation. Fluency in improvisation is no guarantee of clinical effectiveness and may even militate against it. I carried out a small survey (Strange, 2010) of therapists’ perceptions of the clinical implications of finding improvisation easy or difficult in different situations. It appeared that although therapists felt their perception of how well they were able to communicate with a particular client might determine how easy they found it to improvise with that client, they did not report a corresponding influence in the opposite direction, in that ease in improvising was not mentioned as improving communication with clients.

5.4. The scarcity of musical examples of improvisation in the literature

The book “Creative Music Therapy”, especially in its 2007 expanded version (Nordoff and Robbins, 2007) is notable for the wealth of notated musical examples included in addition to the recorded examples on CD. However, a majority of papers, presentations, and even whole books which include discussions of the purposes, effects and psychological significance of actual clinical improvisations say little about the actual music created. Lee (1992) notes that Bruscia’s (1987) “Improvisational Models of Music Therapy” contains no musical examples, nor any descriptions from which to reconstruct even a general impression of the sort of music which might be used in each model described.

Ansdell (1997) laments the fact that

“... one can search in vain through much of the music therapy literature for reference to (let alone use of) the latest ideas and theories of musicologists.

Equally, in music therapists' presentations it is rare that speakers include any *critical thought about music itself* as part of their theoretical elaborations of clinical work ...”

Ruud (2010) notes that in

“... negotiating a space for music therapy within all shades of psychotherapies [...] special education, neuroscience, gerontology, palliative care, neuro-immunology etc. [w]hat is often paradoxically left out in this situation, is theorising about music itself. There is often a focusing away from the very communicative strength of music, the core phenomena that give rise to the very effect of doing music therapy.”

Date	Author/editor	Title (in most cases abridged)	Chapters with examples
1987	Bruscia	Improvisational Models of MT	None
1991	Bruscia	Case Studies in Music Therapy	Few
1997	Pavlicevic	Music Therapy in Context	Few, rhythm only
1998	Wigram/De Backer	Clinical Applications (vols. 1 and 2)	2/30 chapters
1998	Aigen	Paths of Development	None (but annotated CD)
2002	Davies/Richards	Music Therapy in Group Work	None
2005	Aigen	Music Centred Music Therapy	None
2005	Smeijsters	Sounding the Self	None
2006	Oldfield	Interactive Music Therapy	1, but not improvised
2007	Wosch/Wigram	Microanalysis in Music Therapy	2/22 chapters
2007	Watson	Music Therapy with Adults with LDs	None
2008	Oldfield/Flower	MT with Children and their Families	None
2011	Edwards	Music Therapy and Parent-Infant Bonding	None
2011	Tomlinson et al.	Music Therapy in Schools	1/13 chapters

Table 1: Musical examples in recent texts including clinical cases

Table 1 shows the limited provision of what must surely be considered highly relevant information in serious and substantial texts, including the most recent, which report on actual clinical cases. There are several probable reasons why case-studies and vignettes continue to be written in which improvisation is said to have played an important role but only the vaguest verbal account of the improvisation is offered. One is that musical transcription is time consuming and, if done by ear, demanding. The therapist transcribing her/his own improvisation may be afraid of revealing a lack of skill in both improvisation and transcription. (S)he may also be wary of attributing therapeutic effects to precise musical characteristics. She may be concerned that musically illiterate readers could be

put off by musical examples. However, an absence of musical examples in writing about improvisational music therapy risks implying that the actual music is irrelevant, or even calling into question the need for a musically trained therapist. For this reason alone, musical examples are worth including, even if only for illustration without detailed analysis. When the characteristics of the music are central to a writer's argument, musical transcriptions are highly desirable even when audio-recordings are provided. For the musically illiterate reader, musical notation is no more obscure than verbal description in technical musical language.

5.4.1. The relevance of theoretical stance

It might be supposed that a deciding factor in whether a writer includes musical examples would be whether (s)he is discussing music *as* therapy or music *in* therapy (Bruscia, 1987, pp. 503-504), but whilst music *as* therapy would seem to invite the question, "What music?" and therefore place a premium on musical examples, notated or audio-recorded, the characteristics of the music are not incidental or irrelevant in the case of music *in* therapy. In the same way, in psychoanalytic psychotherapy, where the therapeutic relationship is regarded as the healing agent, the verbal and non-verbal *means of communicating* within that relationship is still of considerable importance. Music *in* therapy may regard music as a means rather than as an end, but the end will not be attained if the means is deployed casually or without skill and awareness of its effects.

5.5. Analysis of music improvised in music therapy

5.5.1. Microanalysis

Microanalysis of music therapy processes has become more common in recent years, especially in academic theses. Wigram and Wosch (2007) define microanalysis of music therapy as the detailed analysis of one session, an episode within a session, a therapy event or a "moment-by-moment experienced change" (p. 22). In their edited compilation, researchers who have used microanalytic techniques present them in a format designed to allow other music therapy researchers and clinicians to make flexible use of them. Holck (2004) and De Backer (2007) use detailed inspection and qualitative comparison of musical transcriptions, to analyse the relation between clinically relevant outcomes and musical features. Many of the included studies, for example Plahl (2007), include some quantitative analysis, which normally obliges the researcher to focus on discrete easily defined musical events and features which can be operationalised, although the present

study uses quantitative analysis only to search at a later stage for patterns in a body of qualitative data.

5.5.2. Technological Advances in Musical Transcription and Analysis of Data

Erkkilä (2007) expounds a computational software programme for analysing music therapy improvisations known as the 'Music Therapy Toolbox' but concedes that

“subjective experience and human perceptions will always remain a crucial part of clinical improvisation analysis. With the MTTB we cannot say much about the emotional content of the improvisation, nor create any kind of psychological analysis.” (p. 147)

The recent exponential development in information technology holds great potential for research into the music improvised in therapy, provided that the technology remains the servant and not the master of the analysis. For more than two decades it has been possible to feed MIDI output from keyboards into computer programmes for transcription and even analysis. Lee (1992) shows how it may be advisable, when transcription is made using MIDI technology, to re-transcribe it manually (nowadays facilitated by the use of music notation software) to create a more user-friendly score which represents the music, to the musically literate reader, in a way more closely related to what would have been heard. It is now becoming feasible to capture analogue data from microphones which can then be digitised, converted to musical notation and even analysed electronically (Streeter, 2010).

5.5.3. A continuous response study of musical parameters

The increased availability of such objective data about the physical musical trace offers the possibility of challenging on their own territory any positivists who doubt music's powers of expression. Luck et al. (2008) captured and analysed simultaneously both musical data and listeners' judgments of emotional expressiveness. The data were extracts from improvisations (clients' part only) recorded via a MIDI keyboard in actual therapy sessions. The research aim was “... to define and extract the clinically relevant combinations of musical features that are 'hiding' within the improvisations” (p. 27) in order to account for listeners' emotional responses. Discrete musical parameters capable of operational definition and measurement were selected and their values correlated in real time with continuous computer-recorded judgments of emotional expression by listeners in a laboratory setting. Listeners continuously recorded their perceptions of the music's 'activity', 'strength' and 'pleasantness' on Likert scales via a computer interface. Significant inter-rater correlation was found in respect of each attribute. This agreement on emotional effect between different listeners supported the hypothesis that musical features

influenced ratings, from which the authors deduced that “clinical improvisation is based on meaningful psychological expression” (p.41). Several clear associations were found:

“...higher activity ratings were best predicted by higher note density, greater pulse clarity, higher mean velocity and higher levels of sensory dissonance. Higher pleasantness ratings, meanwhile, were best predicted by lower note density, higher tonal clarity and lower pulse clarity. Higher strength ratings were best predicted by higher mean velocity, higher note density and higher dissonance.” (ibid pp.37-38)

Musical parameters which are more difficult to operationalise, however, such as melody, harmony and modulation, were ignored and the parameters which were chosen were defined simplistically – articulation, for example, as the overall ratio of silence to sound, with no allowance for different articulations in different voices.

Luck et al. (ibid.) did not address the question of which musical features the human ear and brain can detect and process, or the human hand and body control. In writing of “musical features that are ‘hiding’ within the improvisations” they virtually implied that they were seeking features which *cannot* be heard, in which case it is unclear how they could be responsible for the expression perceived by the listeners. Luck (2012) has since indicated that he and his co-authors are aware of these limitations.

5.6. Qualitative studies of the expressiveness of music improvised in therapy

Some studies focus on the feelings expressed or evoked by music improvised in therapy, rather than the musical means used to achieve such expression. As in the psychology of music such studies may use either post-performance self-report methodology or, less commonly, continuous response methodology (Schubert, 2010).

5.6.1. A post-performance self-report study of categorical emotions

Bunt and Pavlicevic (2001) report a small experimental study of listeners’ perceptions of the emotions expressed in non-clinical musical improvisations by music therapists. This was a simple post-performance self-report study, which showed significant inter-rater agreement between listeners’ perceptions of the emotions expressed in each excerpt heard. Listeners were able to identify accurately, in a multiple choice task, the categorical emotions the improvisers had intended to convey. In many clinical situations, however, the most appropriate aim for the therapist’s improvisation will seldom be the simple expression of a categorical emotion, because the therapist’s improvisation is influenced by her/his perception of the changing expressiveness of the *client’s* improvisation. It would

be more relevant to the clinical process to devise a way of assessing the accuracy of therapists' judgments *during therapy* of the emotional content of *clients'* improvisations, although this would admittedly present far greater methodological challenges.

5.6.2. A study comparing interpretations of recorded therapeutic dialogues

Ansdell (1996) played an audio recording of an excerpt of individual music therapy, in which the client produced plenty of music, to experimental subjects who were either trained music therapists, trained musicians or neither of these. The subjects were given no background information about clients or told about any non-musical behaviours, nor even which music had been made by the client and which by the therapist. On the basis of the audio recording alone they made inferences about the client-therapist relationship. Whilst these inferences varied in character between categories of listener, there was a measure of agreement on essential characteristics of the therapeutic interaction and a tendency, even by subjects without musical training, to express this in terms of how the music behaved. This was mostly a post-performance self-report study, but on the second and third hearings of the music an element of continuous response methodology was introduced by asking subjects to stop the tape whenever they wished to comment on a particular moment. This experiment illustrates how an interest in the actual music is compatible with a view of music therapy as relationship, in which the pragmatics of the musical dialogue, rather than purely formal characteristics, take centre stage. It shows that even listeners with no therapy training can deduce dynamic interaction between a therapist and a client directly from their music. This finding might be felt to offer support to a music-centred view (Aigen, 2005b) because the music alone provided Ansdell's subjects with sufficient information on which to base their views on the therapy process. On the other hand, the fact that the subjects sometimes made non-musical deductions from the music could be seen as supporting Smeijsters' (2004) view that musical processes can be therapeutic because they are analogies of psychological processes. Ansdell does not provide information from which we could deduce whether subjects' intuitions about the therapy process were accurate, because his interest in conducting this experiment was solely in how prior assumptions and understandings in the minds of his different categories of listener would determine the various discourses upon which they drew in expressing their views, rather than the accuracy or otherwise of their analysis.

5.7. Outcome research

The development of evidence-based practice together with financial pressures on services have increased demand for outcome research into health interventions. This demand is

difficult to satisfy in the case of improvisational music therapy, especially for people with learning disability, for a number of reasons.

5.7.1. The relative rarity of outcome research in improvisational music therapy for people with learning disability

In their review of music therapy for learning disability, Hooper et al (2008b) note the relative rarity of outcome studies of improvisational music therapy with this client group, compared with outcome studies of Music Activity Therapy. Those outcome studies of improvisational music therapy that do exist are constrained by the need to evaluate observable skills and/or behaviour rather than speculate about psychological processes. Oldfield and Adams (1990) and Hooper (1993), both using video analysis, were able to quantify a greater effect of music therapy than of play therapy in advancing individual objectives for learning-disabled children (Oldfield and Adams, *ibid.*) and a learning-disabled adult (Hooper, *ibid.*). Edgerton (1994) offered eleven autistic children Creative Music Therapy (Nordoff and Robbins, 1977) and found a significantly greater increase in interactive behaviours in this experimental group than in a control group who were presented with structured musical tasks. In another study of Creative Music Therapy with children, Aldridge et al. (1995), using an ABA reversal design, demonstrated clinically significant changes in hearing and speech, hand-eye co-ordination and personal-social interaction, which were evident from the first but continued to improve. Qualitative evidence of generalisation to the home environment was also presented in this study, which is an example of mixed qualitative-quantitative methodology.

5.7.2. The difficulty of researching outcomes of improvisational music therapy

Quantitative outcome research into improvisatory music therapy is fraught with difficulties. Hooper et al (*ibid.*) mention the time-consuming nature of video microanalysis, which limits the number both of clients and of sessions which it is practical to include in a study, as acknowledged by Oldfield and Adams (*ibid.*). They also note the distortion of normal clinical practice which can occur in setting up an experimental design, as reported by Lawes and Woodcock (1995). In addition to the problems of measuring the dependent variable – the clinical outcome – it is all but impossible to operationalise the independent variable – the improvised music. If this is not done, however, the experiment cannot be replicated. If it is done, on the other hand, the responsiveness which is the essence of improvisational therapy may be compromised.

5.7.3. Scales for assessing client responses in improvisatory music therapy

The most valuable outcomes of music therapy are often taken to be those changes which are evident beyond the therapy room but which can be attributed to the therapy. Changes within the therapy room which may be detected by analysis of the client's improvisations over time are, however, also considered a form of outcome, especially by therapists taking a music centred stance (Aigen 2005b), for whom music making itself is an aspect of health and not merely a means of achieving health.

The Improvisation Assessment Profiles by Bruscia (1987) are the most ambitious attempt to date to evaluate improvisations systematically, but are extremely demanding to apply. Lee (1992) notes (p.75) that

“Bruscia gives no guidelines for notating the improvisation in musical tabulation and [...] affords no examples of musical format, discussing the musical components in terms of generalized component proclivities. This [...] would suggest that the assessments are considered in terms of other paradigms and not at any stage as constituents in their own musical terms.”

Wigram (2007) selects the profiles for “autonomy” and “variability” from the original six and illustrates their use with a case example. Ten years before Bruscia (ibid.) created the IAPs, Nordoff and Robbins (1977) produced two assessment scales which are slightly less complex than the IAPs, and are widely used clinically to monitor progress. Both the IAPs and the Nordoff-Robbins Scales consider the relationship between the client's and the therapist's music in order to understand the client-therapist relationship. Neither scale has been standardized. A more serious limitation is discussed at 12.3.8.

5.8. Deficiencies in the evidence for outcomes of improvisatory music therapy for people with learning disability

Hooper et al (ibid.) note that the experimental evidence of the efficacy of any form of music therapy is weakened by various confounding factors which it is usually impossible to control for, such as other concurrent treatments and situational factors unrelated to the music therapy intervention and, in long-term studies with children, the effects of maturation. As regards evidence of generalisation and durability of positive effects of music therapy for learning disability after the cessation of therapy, the review identified only one study, by Aldridge et al. (1995) relating to improvisational music therapy, and two, by Macdonald et al. (1999) and Elefant (2005) relating to music activity therapy. Where clients are articulate and able to report on the benefits of music therapy in a way

that those with learning disability often cannot, as for example in the randomised controlled trial conducted by Erkkilä, et al. (2011), experimental studies of the outcomes of improvisatory music therapy are more possible.

Finally Hooper et al. (ibid) express surprise at the very small number of outcome studies using qualitative methodology, which they suggest is much better able to preserve a naturalistic context for therapy than is possible in quantitative studies. Finally they recommend greater use of single case designs, which are better able to accommodate and study unforeseen changes, as opposed to changes in a pre-determined set of parameters.

5.9. Summary and implications for the research topic

Improvisation is practised in several genres of Western music, and can act as an avenue for both creative self-expression and interpersonal communication. Clinical improvisation is a term used to describe improvisation with a specific clinical focus and intention.

Improvisatory music therapy may be “psychoanalytically informed” without making use of verbal interpretation or discussion. Music therapists develop their improvisational skills both during and after their professional training, but fluency in improvisation is no guarantee of therapeutic effectiveness.

Much of the literature on improvisational music therapy lacks notated musical examples, making it difficult to imagine the role of the music and perhaps even suggesting that this is not important. Microanalytical techniques are starting to remedy this deficiency, but a focus on small, operationally definable details may not convey the broader picture.

Advances in information technology hold great potential but should not distract from the *phenomenon* of music – what is actually experienced by the participants.

Outcome studies of improvisational music therapy are relatively rare in the field of learning disability, and many factors limit what can be stated with confidence. Qualitative methods of research, as opposed to merely descriptive case studies, are under-used in the investigation of outcomes, despite their growing popularity in other areas of music therapy research. Qualitative scales for evaluation and assessment in improvisatory music therapy exist and involve a degree of quantitative data processing, but none has been standardised. It has been shown that listeners can reach a degree of consensus on what is happening in music therapy from audio-recordings alone.

There are several precedents for mixing qualitative methods of assessing aspects of both improvised music and clinical outcomes with quantitative methods of analysing the findings, as is done in the present study.

Chapter 6: Research questions and methodology

The principal research questions this study will address are

- 1) How does improvised music influence the interaction between teenagers with profound and multiple disability and their learning support assistants?*
- 2) Which aspects of the music are associated with any effects found?*

In this chapter I explain how these research questions were decided upon and set out my initial thoughts on how to approach them, which led me to plan the following linked but contrasting stages of the investigation:

- 1) a survey of the views and experiences of UK music therapists using assistants in work with learning-disabled clients*
- 2) interviews using video clips of TSII to explore learning support assistants' experiences of their own role in supporting a learning-disabled student*
- 3) meetings with music therapists to record their clinical judgments of the same video clips*
- 4) a panel meeting of the music therapists to discuss their varying judgments and relate them to musical transcriptions*
- 5) my own first person analysis of the role of my improvised music in the clips*

I examine a range of methodological issues which I had to consider in connection with each investigation before I could design the research methods detailed in chapters 7-10.

6.1. Relating TSII to current practice

Chapter 1 has outlined my thinking about the importance of student-LSA interactions, and how in the course of the clinical work with teenage groups I developed TSII as a way of fostering them. As so little has been written about music therapy assistants (4.1.) it is not surprising that even less has been written about the involvement of assistants as interaction partners. Neither Schmidt-Robyn (2008) nor Munro (2011) who investigated the role of music therapy assistants (4.2.) could locate any specific discussion of the topic in the literature. Both studies focused on the dynamics of the complex relationships which result from the involvement of assistants in music therapy, and did not discuss the music, nor the use of any procedure similar to TSII. My own search of relevant databases (4.1) and the index sections of relevant books (5.4., Table 1) did not reveal anything similar to TSII. Without published findings to replicate, refine or challenge, the most appropriate research questions are exploratory ones.

6.1.1. Surveying the national context

Despite the lack of literature on the use of assistants in music therapy, I still thought it likely that amongst music therapists working with profoundly disabled clients in groups the use of assistants would be fairly widespread, and that in some cases practices similar to TSII might be in use. To check the accuracy of these assumptions, a national survey of professional music therapists working in the field of profound disability was required. Having a clearer picture of the current state of clinical practice would be highly relevant when considering what any findings from my projected study of TSII might be able to contribute to current knowledge.

I hoped that such a survey would clarify whether the use of assistants was as infrequent as the lack of writing about their use might suggest. In particular I wondered how unusual it was to involve assistants as interaction partners, having found only two references in the literature which mentioned or implied this as part of their role (Bull and Roberts, 2005; Melhuish and Beuzeboc, 2010).

I considered that there would be a range of reasons for including assistants in music therapy sessions with clients having PMLD. Some of the functions assistants might be asked to perform could be compatible with acting as interaction partners, but others might be hard to combine with that role. I was interested to know to what extent assistants were given each of a range of possible roles, and how far the decision whether or not to use them as interaction partners might depend on the other roles required of them. As it might

distort responses if I were to refer specifically to my special interest in TSII, the survey should be designed to answer more general questions about the use of assistants such as the following:

- What proportion of UK music therapists working with PMLD employ assistants in each of a series of possible roles?
- For what purposes, including the option of acting as interaction partners, are assistants used?
- How effectively do therapists find that assistants fulfill those purposes?
- What unforeseen problems have been experienced in using assistants?
- What unforeseen advantages have been gained by using assistants?
- What do therapists believe are the reasons for the dearth of references in the literature to assistants?

6.2. Investigating TSII itself

The development of TSII has been described in chapter 1. When read in combination with chapter 2 about the importance of interpersonal interaction for those with profound learning disability, chapter 1 provides a rationale for TSII. We now need to consider how to investigate the procedure.

6.2.1. Exploration should precede evaluation of an untested form of intervention

Some approaches, procedures or techniques within health interventions have become well established in professional practice through tradition rather than on the basis of empirical evidence. As an instance of this, children whose impaired communication results from cerebral palsy are routinely offered speech and language therapy (SLT). A recent Cochrane meta-analysis of SLT for cerebral palsy (Pennington, Goldbart and Marshall, 2011) found only “weak evidence” that SLT might be of benefit but, as could have been predicted, this has not led to the abandonment of SLT with this client group, for whom it has long been established. It is however becoming much more difficult to introduce new health interventions nowadays without strong empirical evidence. With the shift of authority from medical consultants to health managers (De Nora, 2006, p. 83) managers are turning for guidance to authorities such as the Cochrane Collaboration when seeking the most effective and appropriate health interventions, rather than simply accepting those favoured by clinicians without strong empirical support. Similarly, the Health and Care Professions Council (HCPC) in its Standards of Proficiency (SoPs) requires music (and other arts) therapists “to engage in evidence-based practice” (Health Professions Council, 2007, p.9).

This implies, *inter alia*, taking account of the findings of the Cochrane Collaboration and the recommendations of NICE and other relevant sources of authority.

This requirement is hard to satisfy in the early stages of developing new approaches to treatment. Every form of health intervention necessarily lacks an evidence base when first introduced. Too rigid an application of the requirement for practice to be evidence-based could stifle innovation. A pragmatic interpretation of the requirement is required, which takes account of such existing evidence as seems relevant, and acts with caution when evidence is lacking, keeping appropriate records and regularly reviewing the outcomes of the work.

Before a new intervention can be evaluated it must first be defined, and one way to build up a definition is from a series of concrete potential instances. The present study offers an idiographic description of a small selection of such instances of TSII.

6.2.2. The decision to conduct a naturalistic study

Kenny and Wheeler (2005, p.64) define naturalistic inquiry as the whole range of research methods which study “natural or real world settings, and [in which] the researcher does not attempt to manipulate or change the phenomenon of interest”. In the present study the data about the phenomenon of interest – the support of client assistant interaction by improvised music – is embedded within a series of music therapy sessions which had been video-recorded long before I decided to research the topic. At the time neither I nor the LSAs had consciously recognised student-LSA interaction as a discrete procedure of special interest or originality. The LSAs were drawn into such interactions by the students themselves and by their own views of the students’ needs. This process was facilitated by my music, and by my ‘stepping back’ socially to allow interactions to develop between students and LSAs rather than between students and me. The phenomenon of interest was thus neither created nor manipulated to suit the research, and Kenny and Wheeler’s definition of naturalistic enquiry has therefore been met.

An evaluation of TSII, as well as being premature, is beyond the scope of the present study, although some preliminary suggestions are offered at 12.8.3. At present, it is sufficient to ask, in respect of the evidence to hand, how the improvised music in TSII influences the interaction between client and assistant, and how such influence is linked to specifics of the music.

6.2.3. Formulating the research questions

Before formally stating the research questions it is necessary to realise that they can be viewed in several ways, which could determine how best to investigate them. The focus could be on the improvised music, in which case one would ask which of its properties or qualities appear to have had some effect on student-LSA interaction. Alternatively, the focus could be on student-LSA interactions, in which case one would ask which aspects of those interactions appear to have been influenced by the improvised music. The third possibility is to give music and student-LSA interactions equal status and look for potential causal links between music and interaction based on the discovery of recurring temporal correspondences. In effect this is to ask, ‘which improvisational techniques seem to bring about any effects which are found?’

Eventually I decided to encourage an equal attention to influences on the interacting dyads on the one hand, and to the music on the other, by asking two related research questions:

- 1) How does improvised music influence the interaction between teenagers with profound and multiple disability and learning support assistants?’
- 2) Which aspects of the music are associated with any influences found?

I used the word ‘influence’ in Question 1 rather than ‘support’ to avoid presuming that any influence would necessarily be positive. Likewise, asking ‘how’ rather than ‘how much’ acknowledges the difficulty of assessing effect sizes, although it may be possible to rank them subjectively. The intention was to reveal associations between specific influences and specific features or qualities of the music by approaching the question from both directions. The distinction between the two questions may be clarified by contrasting Tables 20 and 21, which address question 2 by summarising musical aspects which the panel found to be influential, with Tables 22 and 23, which address question 1 by summarising influences, observed or inferred, on the student or the LSA. Table 24 then displays a selection of the associations made by the panel between musical aspects and their influences.

6.2.4. TSII as an interpersonal system

Therapist and client, and perhaps *a fortiori* therapist, assistant and client, clearly constitute a system, in the sense that there is a mutual influence between the elements (Pavlicevic, 1997; Garred, 2006). One element of a system cannot meaningfully be considered in isolation from the others, as we are reminded by Winnicott’s aphorism that “there is no

such thing as a baby” (Winnicott, 1947/1964, p.88). The therapist’s musical interventions are also part of a system, and it would present a partial and most misleading picture to describe them completely in isolation and out of context. Any therapist intends, in the broadest sense, to have some influence on the client, but he achieves this as much by being receptive and responsive as by being proactive and directive. This is even true of interventions of a medical nature, where initial assessment and perhaps diagnosis indicate a course of treatment, but ongoing monitoring is needed to make adjustments which take account of the patient’s response to the treatment. The reciprocity of influence between therapist and client is more obvious in the case of psycho-social interventions such as music therapy where the relationship itself is regarded as an active ingredient in the therapy (Bruscia, 1998; British Association for Music Therapy, 2011).

Despite this reciprocity, it is possible to distinguish the contributions to the whole made by the various elements in a system. Imagine an inanimate mechanical system consisting of several moving parts or communicating digital processors. One element might have the characteristic of generating random fluctuations in response to specific input from its fellows; another might be set up to detect and amplify or repeat the movements or digital output of the others; a third might have the function of averaging out the others’ contributions; and a fourth the function of damping the system to prevent excessive feedback, and so on. All elements influence each other and would not perform in the same way in isolation, yet it is useful to be able to detect and describe their distinct contributions to the functioning of the whole system. It is possible to explore the effect of one element on another without implying that it operates in isolation, or in one direction.

The music therapist’s contribution to the system of client, assistant and therapist may be investigated in the same way. It does not exert a one-way influence but includes musical aspects which constitute his response to what the client (or in the case of TSII the client and the assistant) offer(s). The contributions of the client and the assistant are equally important and interesting, but since only the therapist’s own contribution is under his direct control, and therefore his responsibility, it is important to understand it better.

6.2.5. The music therapist’s role in TSII is itself an *intra*-personal system

The music therapist’s own contribution to the inter-personal system of TSII can itself be regarded as an *intra*-personal system. Music therapists would generally agree that they do much more than play and sing music, and that the other things that they do, including overt social communication by body language and verbal input and most importantly their understanding of psychological processes and their reflection, analysis, clinical decision-

making and planning, all interact with their music. So long as this is kept in mind, it is still legitimate to make a specific study of the music. In fact, unless the musical component is in some way subject to detailed examination it is liable, as we have seen, to be neglected. Writers who take this dimension of clinical writing seriously (Nordoff and Robbins, 1977; Lee, 1992; Ansdell, 1995; Streeter, 1999; Sloboda and Bolton, 2002; Aldridge and Aldridge, 2008; Parker, 2011) are sadly still in the minority and a great deal of writing about clinical work leaves the reader unclear as to what the music was like, and why. This can inadvertently give the impression that the detail of the music is of secondary importance. As already noted, Luck et al (2008) exclude the therapist's music altogether from their study of the expressive potential of music improvised in therapy.

As well as being an essential element of the music therapist's intervention, his improvised music, unlike the interpersonal and reflective skills which he shares with some other psychological therapists, is specific to his discipline, and calls for its own specific technical expertise, honed by experience and also by study. One aspect of that study, distinct from generic instruction in improvisatory techniques and their applications (Wigram, 2004) is learning from actual clinical examples in the work of other therapists, where specific music can be seen performing specific roles in actual clinical cases.

6.3. The video-recorded data

The primary data used in this study were video recordings of therapy with persons having PMLD, some of whom were over 16 years of age. The approval of the NHS Research Ethics Committee therefore had to be obtained for short clips selected from this archive to be used for research purposes. Appendix 1 shows key sections of the submission completed using the Integrated Research Approval System (IRAS), associated documents and correspondence with the Committee. Having received NHS REC approval, no separate university ethical approval was required.

6.3.1. Selection of video clips

I had access to recordings of years two and three of work with each of four groups, but unfortunately not year one. The recordings, made by a fixed camera with a wide angle lens to capture the activities of the whole group, were of variable quality. I had made notes after each week's sessions, but these focused mainly on the students' behaviour and inferred feelings. My own interventions or those of LSAs had only been noted in relation to the students' responses. I had not differentiated responses to TSII from those to other interventions. Thus the evolution of TSII had not been specifically documented.

Aigen (2005c, p.355) cites Lincoln and Guba's 5th characteristic of operational naturalistic enquiry, the 'purposive sample':

"Purposive sample. Because they are not constrained by the requirements of statistical analysis, researchers ... select particular entities to study because they are more likely to hold the answer to specific research questions ..."

It was possible to find, in my clinical notes, many references to responses by individual students where an LSA had played a significant role, either by musical or other active interaction or simply by maintaining attention and empathy towards the student. In many cases my involvement had been mainly musical, without significant social interaction with either student or LSA. I wished to select clips illustrating contrasting instances of interaction between different students and LSAs, accompanied by my improvised music, where TSII seemed to have been effective in developing student-LSA interaction. Negative instances, where TSII did not appear to have been effective were not required, since my purpose would not be to evaluate TSII or to claim that it had been equally effective whenever it was used.

6.3.2. The need for independent collaborators

A study of the effects of a specific intervention in one's own clinical work is clearly a variety of first person research (Bruscia, 2005). I was led to undertake the study because I believed in the efficacy of TSII, and to conduct only first person research could lay me open to bias. I therefore decided to rely principally on independent data from voluntary collaborators. This provided an additional reason for studying only brief clips rather than the whole process of therapy, since I would need to design tasks of manageable proportions to allow my collaborators to make meaningful observations about the moment to moment influence of my improvised music on student-LSA interactions. I reasoned that the brevity of the excerpts would encourage attention to detail (Wigram and Wosch, 2007).

The data from collaborators, obtained as set out at 8.1.5., 9.1.8. and 10.1.4., could be described as 'derived' rather than 'secondary' data since they derive from their interactions with the primary data of the video clips. The other derived data, with which the collaborators' views could be collated, would be musical transcriptions which I myself would make of the video clips, the object being to search for associations between musical features and collaborators' judgments of the influence of the improvised music.

To reduce the likelihood of bias in collecting data from collaborators, I decided to delay making my own assessment, even a mental one, of the primary data until after the derived

data had been collected and analysed. I realised however that I could not avoid my own impressions and feelings becoming more pronounced as I became ever more familiar with the clips through the two processes of making musical transcriptions and of repeatedly showing the clips to my interviewees. I knew I must nevertheless make every effort to conceal my own hopes and expectations as to what my collaborators might say about the clips, in order to avoid influencing their responses.

6.3.3. Choice of collaborators

I decided to use two groups of collaborators with relevant prior knowledge and understanding – LSAs who had assisted in music therapy groups and independent music therapists. Each LSA would watch a video clip in which she had interacted with a student and give a semi-structured interview on what she saw and heard. Each music therapist would assess all the clips and judge the effect of the music on student-LSA interactions, and then all three, meeting as a panel, would discuss their findings. Two different protocols would be required so that the very different skills and understandings of the two groups could be brought to bear on their respective tasks.

6.3.4. The research role of the learning support assistants

The LSAs who would watch and respond to the clips had no specialist knowledge of music therapy but a great deal of experience of working with young people with profound learning disability. I anticipated that their familiarity with the teenagers seen in the clips would prime them to focus their viewing first on those teenagers' observable behaviour, secondly to draw inferences about their mental processes, thirdly to consider their own behaviour and their conscious reasons for it, and only lastly, if at all, to think about the keyboard music. This was probably the same order of priority for their attention as they would have had during the therapy sessions in which the clips were recorded.

For each LSA, watching a video clip of her interaction with a student on a particular occasion and hearing the improvised music which accompanied it would, I imagined, evoke a complex amalgam of reactions recalled from the time of the clip and fresh reactions in the present moment of watching, one or two years after the event. I expected, however, that the views they chose to express would be strongly influenced by the relative importance they consciously attached to each possible focus of attention. While ostensibly addressing what they saw happening, and the reasons for it, I hoped the LSAs would reveal something of their own experience, as well as the rationale for their behaviour, as partners in each dyad. Since it is the dyadic interaction which TSII addresses, the LSAs'

experience is as important as the students', despite their not being clients, and not so regarding themselves.

The LSAs could also act as spokespersons for the students, whose profound disability prevented them from speaking about their experiences. The LSAs, speaking on their behalf, could interpret their behaviour using the knowledge they had acquired through their acquaintance with the students. There are precedents for such expression by proxy in other qualitative studies (Aigen, 1997; Nowikas, 1999; Warner, 2005) where clients had learning disability.

As my work with the LSAs had ceased more than a year before the interviews, their recollections would have faded, undergone unconscious processing and been overlaid by experiences of more recent work with a new music therapist. I hoped that viewing video clips of their interactions with students would enable them to some extent to retrieve memories from the time they were recorded. Even if this did not occur, they could share their spontaneous reactions to what they saw and heard. In some cases the specific instance might be recalled, but in others their reactions would be to what was on the screen, not to what could be remembered.

6.3.5. The research role of the independent music therapists

The judgments made by independent music therapists would be a form of triangulation (Robson, 2002, pp. 371-373). The music therapists' role, in separate interviews, would be to assess the effect of my improvised music on student-LSA interactions. Their responses could later be collated and compared, and also temporally associated with notated scores of the music to permit them as a panel to investigate links between therapeutic and musical processes. I decided to recruit clinicians with experience of profound learning disability who were not familiar with my own work, either directly as colleagues or indirectly through professional presentations, nor with any student or LSA featured in the video clips.

The music therapists would view the clips from a different perspective from that of the LSAs, although their first focus of attention, as in their own clinical work, would probably be what could be seen and heard of students' behaviour, musical and otherwise, from which they would draw inferences about their mental processes. Their remaining attention might be divided between the behaviour and inferred mental processes of the LSAs, whose clinical appropriateness and skill they might be inclined to evaluate, and my role as music therapist, which they might also evaluate, whilst perhaps inevitably identifying, to an extent, with me as a fellow professional.

Although the music therapists would have had no personal involvement with the therapy they saw in the clips, I hoped that there would be an emotional component, perhaps akin to countertransference, in their responses. I hoped it would be possible for them to identify with both the students and the LSAs in order to intuit how they might have experienced my improvised music and how it might have affected them emotionally. Music therapists are accustomed to watching and thinking about others' clinical work in several contexts – during training, when attending presentations by colleagues and when supervising.

In this and the previous section I have shared my thoughts, in advance of the interviews, about how LSAs and music therapists would approach the video clips. My expectations and concerns were not always borne out by their actual responses, but have been reported both because they influenced the design of the research tasks and also because they may have affected how I have analysed and understood how they actually responded.

6.3.6. Planning the research collaborators' tasks

I recognised that because my central research questions concerned the influence of my own improvised music I was at risk of exerting undue influence on my collaborators. I had to consider what guidance and instruction I should give in order to elicit the desired information with minimal distortion. It was important that neither the LSAs nor the music therapists should feel under any pressure to focus on specific musical events or characteristics of my choosing. I hoped that the music therapists, and perhaps the LSAs to a lesser extent, might nevertheless cite musical events or characteristics in relation to their judgments of what they saw on the video, but in case this should not occur I required a method of correlating collaborators' comments and judgments about visible behaviour and inferred mental processes with the concurrent music. In this way I might discover connections they might not themselves be aware of. I decided the LSAs could be asked to pause the recording whenever they wished to comment or allowed, if they preferred, to speak over the recording. The music therapists could be given transcriptions in the form of musical scores, on which to indicate their judgments of specific moments or passages in the music. This response method, used in the pilot study, was however changed to a continuous response method (9.1.6.) for the main study.

6.3.7. Dilemmas in determining causal relationships

Section 6.2.4. has shown how TSII is a systemic process. On the video clips I, as therapist, am reacting to the behaviour and inferred feeling states of the student and the LSA and the progress of their interaction, just as much as they are reacting to my music, making the

direction of any apparent causal connections difficult to determine. Any particular LSA-student interaction might have developed in response to specific features of my improvisation, but equally I might have been improvising in that particular way as a response to certain developments in the interaction. In clips expressly selected to show encouraging student-LSA interactions, is the quality of my improvisation part of the *cause* of the interaction, or am I improvising especially creatively in *response* to the LSA-student interaction? The latter possibility was suggested by a survey (Strange, 2010) which found that therapists' improvisation flows more easily when clients are responding in the way they, as therapists, hope (5.3.4.).

To ensure that the independent music therapists took account of influences *upon* my music as well as considering the influence *of* my music, they would need to pay as much attention to the student-LSA interactions in their own right, including their musical dimension, as to my music. They would need to consider how my music might be responding to those interactions, as well as influencing them. It would also be important that they should be encouraged to note any non-musical factors which appeared to have influenced student-LSA interaction, and not be required to focus exclusively on musical influences. I left open the question of whether they should note only those influences they felt my music had actually exerted, or include what they considered to have been the clinical intention of the music, even if it did not seem to have been realised. It seemed to me that by leaving the interpretation of the task to the therapists, I would enable them to produce richer data for subsequent discussion.

The LSAs, similarly, should not be constrained by specific questions about the influence of my music on either the students or themselves, since it would be important to discover whether they spontaneously revealed an awareness of such influences. They should therefore be invited simply to comment on anything they noticed about the music.

6.4. Planning the learning support assistant interviews

Having decided to conduct interviews where the stimulus for response and discussion would be video clips – in the case of LSAs video clips featuring themselves – I was unable to find any models corresponding closely in method or purpose to what I had in mind. Video Interaction Guidance (2.2.4.), Interaction Guidance (2.2.5.) and Interpersonal Process Recall (Larsen, Flesaker and Stege, 2008) all have either a didactic or a therapeutic purpose rather than an purely exploratory one. It could be argued that semi-structured interviews intended to explore experience should avoid stimuli such as video clips which could restrict freedom of expression, but I believed the approach to be described at 8.1.5.,

together with precautions (6.4.3.) to avoid a ‘demand effect’, would protect their freedom of expression and encourage spontaneity.

6.4.1. An analytical approach to semi-structured interviewing

Wengraf (2001) advocates breaking down one’s central research question into a number of theory questions which can then be addressed indirectly by asking carefully constructed interview questions. I initially drafted questions according to this recommendation. I found, however, that this resulted in a proliferating list of interview questions which would take up far too much of the interview time, especially as there was also a video clip to be watched three times. I did not wish to stifle the LSAs’ spontaneous communication of their experience (or of any theoretical views they themselves might have formed) so I abandoned this approach.

6.4.2. A simpler approach

I next considered what would be the minimum level of guidance needed to help LSAs speak spontaneously about aspects of their experience in a way that would help address my research questions. I decided I would simply ask them to address, in their own time and in any order:

- their own observable behaviour
- the student’s observable behaviour
- their own thoughts, feelings and intentions (remembered or reconstructed)
- the student’s feelings (inferred from observable behaviour and prior knowledge)
- the role of the keyboard music

Supplementary questions could be improvised if necessary to clarify their answers and follow up unforeseen new lines of thought. This is a typical pattern for semi-structured interviewing (Coolican, 2004, pp. 155-160; Robson, 2002, p. 278). The prompts to remain with the topic of interest provided by repeated viewings of the video clips should not be allowed to limit the time available for LSAs to comment on matters not directly related to the clip if they wished, nor to interrupt or curtail such comments.

6.4.3. Minimising ‘demand effects’ on LSAs’ responses

My chief interest in interviewing the LSAs was in their experiences of participating in TSII. Though not a music therapy client, each LSA, as one half of the interacting dyad, was in a unique position to speak about how TSII had been experienced. I recognised,

however, that they would be very conscious of their role as LSAs, with a weighty responsibility for the students to whom they were assigned throughout the day at College Link. I imagined they would wish to see themselves as both effective and ethically responsible, and would be hoping that I saw them in the same light. If they saw their behaviour in a dyadic interaction with a student in music therapy as a continuation of their duty of care to the student, they would wish to justify and explain their behaviour towards the student, and might well assume sole responsibility for it, rather than viewing it as their response to my music. These wishes constitute an agenda behind their responses which it would have been possible to explore using discourse analysis. I felt, however, that whilst such influences should be borne in mind, the focus should remain on their experiences.

I hoped to learn how the improvised music had affected them during the episode recorded on the video clip, but I realised that they might have been unaware of being influenced by it, having never been told to expect such influence on themselves, as opposed to on the students. They were unlikely to have deliberately attended to the music, and might at times not have been conscious of it at all. Their attention would have been largely engaged by the interaction with the students, just as in film music (Cohen, 2010) the audience's attention is engaged with the events unfolding on the screen. Both LSA and film-goer are able to hear the music but may not be consciously aware of it because their attention is engaged elsewhere. Nevertheless, much information may be unconsciously imbibed from the music in both cases, and this may colour their perception of the object of their conscious attention (Cohen, *ibid.* p. 886).

Although the LSAs might have been unaware of being influenced by the music at the time the video clips were recorded, and thus unlikely to attribute such an influence to it when watching the clips, they would be much more likely to look for evidence of musical influences on the students, if only because the sessions had been described as music therapy and had been provided for the students' benefit. In considering musical influences on the students they might be aware of being in a position to evaluate my work. This could introduce a bias towards a positive evaluation. The asymmetrical power balance between the LSAs and the therapist-turned-interviewer could evoke a wish to please the authority figure. Alternatively, to the extent that I had been able to establish, during the therapy and now in the interview, a relaxed working relationship of respect, they might be reluctant to disappoint me or 'spoil' the research by making a negative evaluation.

Faced with these possibilities I reasoned that LSAs' judgments of the effect of my music would be most genuine if they were not consciously aware of making such judgments.

Their views on the effect of my music could be inferred from their answers to other questions, rather than sought through direct questioning. I have here again set out concerns which I had in advance of the LSA interviews, because although some of them do not seem to have been borne out by their responses, they influenced my planning of the method.

6.4.4. Interpretative Phenomenological Analysis (IPA) of LSAs' contribution

Exploring experience suggests a phenomenological approach, for which semi-structured interviews are frequently the instrument of choice. Smith (2008) and Willig (2009) describe a number of qualitative research approaches using interviews, which differ both in their philosophical bases and in the types of question they are designed to answer. Interpretative Phenomenological Analysis (IPA) of semi-structured interviews (Smith et al., 2009) is appropriate when the intention is to gain a direct impression of interviewees' experience rather than to account for that experience, test an existing theory or generate new theory. IPA borrows elements of other approaches only insofar as they contribute to this clearer understanding and no further. So although elements of discourse analysis or hermeneutic enquiry, for example, might throw light on the conscious and unconscious influence of both cultural and personal factors on what interviewees say, the primary purpose is to bring their conscious experience to life for the reader, rather than to interpret or account for it.

IPA recognises, on the one hand, that what emerges is the *researcher's understanding* of the interviewee's understanding of experience, rather than a direct presentation of that experience. On the other hand, it is accepted that there actually exists a cognitive content which interviewees attempt to communicate, rather than their communication being constructed out of thin air, so to speak, in interaction with the interviewer (Smith et al., 2009; Howitt, 2010). In the present study, investigating how the LSAs experienced TSII and how they made sense of that experience could provide a window onto the workings of TSII. This does not require us to explore all the individual personal and contextual factors which might have influenced that experience and their interpretation of it.

IPA was developed to explore how individuals strive to understand experiences, especially major life-changing experiences of wide human interest, to which they do not have ready-made responses, such as bereavement, redundancy or becoming a long-term carer. The experience of being a music therapy assistant during TSII cannot be considered a phenomenon of universal human interest, simply because music therapy is still, regrettably, a scarce provision. Only a small number of people have been called on to act as music therapy assistants, and probably fewer have experienced participating in ways similar to

TSII. But for the LSAs in this study TSII was a novel experience of which they would have had to develop their own understanding. The importance of the understanding they developed was as a major determinant of their behaviour in the therapy room, with a direct impact on the students' therapy.

Another deviation from the usual shape of an IPA study is the modification of the semi-structured interview process by the use of a video clip as stimulus rather than seeking the LSAs' unaided recollections of TSII. Nevertheless, the approach is described as a variant of IPA for two reasons: first because the purpose was to understand LSAs' experiences and how they made sense of them and secondly because of the stages followed in analysing the interview texts (8.1.7. and Appendices 7a-d).

6.5. Planning the music therapist interviews

6.5.1. The influence of the music on both overt behaviour and mental processes

Reflecting on TSII in preparation for this study, I realised I had long been aware of directing my improvised music towards both the observable behaviour and the mental processes of the student and the LSA. My music might attempt to directly influence musical or non-musical aspects of behaviour (such as intensity or timing) by contagion or entrainment (Juslin et al., 2010; London, 2012; Samson and Ehrlé, 2001/2009; Thaut, 2005) or it might work by suggestion, presenting to one partner a possible style of interaction with the other which (s)he might choose to imitate. My music might also address the interacting partners' mental processes, their perceptions, understandings and feelings, either directly or by drawing attention to an aspect of the other partner's behaviour or mental processes of which they might otherwise be unaware or might misinterpret. Distinguishing between behaviour and mental processes may seem a somewhat artificial exercise, since the two are inextricably linked. However, whilst recognising that for the possessor of the behaviour and mental processes they cannot be separated, the therapist may still consciously focus his intervention primarily upon the one or the other.

I wished the music therapists to consider the range of ways in which improvised music might influence the student and the LSA and thus affect their interaction. I decided that a theoretical framework was needed which could encourage them to recognise and discriminate between musical influences on behaviour and on mental processes. For this I turned to Stern (1998) who provides a series of diagrams to model what is going on when a

mother and infant interact, in order to classify the approaches of various schools of child psychotherapy when they intervene to influence that interaction.

6.5.2. Stern's theoretical model for classifying mother-infant psychotherapies

Stern uses the term “representations” to denote the internal working models which the partners in a relationship build up as many experiences of being together accumulate and are stored in implicit procedural memory. These representations, based on past experience, influence how the partners behave in the present when together, and Stern therefore refers to their behaviours as “enactments” of their representations. He explains that one partner’s representation can influence that of the other partner, but only by way of its enactment in the form of behaviours the other can detect. My memories of my thought processes while working with students and LSAs were illuminated by this conceptualisation of the triad of child, mother and therapist, for I had often been aware of musically addressing both the inferred feelings and the overt behaviour of both interacting partners. I decided to use the more familiar term “behaviour” in this study, rather than “enactment”, but I retained the term “representation” to distinguish Stern’s concept from other models of internal processes, such as “internal objects”.

Stern’s (ibid.) eighth and ninth chapters examine a range of different schools of parent-infant psychotherapy. Within a broad division between approaches which target representations (chapter 8) and those which target enactments (chapter 9) he subdivides the various approaches according to their “port of entry” – meaning that element of the whole system of representations and enactments of parent, child and therapist on which the therapist first focuses his attention. Table 2 illustrates how the possibilities can be schematically represented as four “scenarios” (my own term). This method of classification does not prescribe the method and mechanism of influence.

	Infant/ Client (student)	Mother/ LSA
Enactment/ behaviour	scenario 1	scenario 3
Representation	scenario 2	scenario 4

Table 2: Classification of approaches in TSII as four scenarios

6.5.3. Indirect and direct intervention

It should be noted that the therapist, in the models of mother-infant psychotherapy Stern (ibid.) discusses, seldom intervenes directly upon the infant to influence his/her representation or enactment (see his comments on Interaction Guidance at 1.1.7.). He may, for example, help the mother to notice and interpret infant behaviours as enactments and to infer and reflect upon the representations they enact. In this case the mother's representation would be classified as the "target" but the infant's behaviour to which he draws the mother's attention is the "port of entry". When working with my teenage students and their learning support assistants, I might try to encourage similar skills of observation and interpretation in the LSAs, but I might equally address the teenage student's representations and enactments directly through my music in a way that perhaps does not have a clear parallel in mother- infant psychotherapy. This is possible because the intervening medium of music, through which the student's behaviour and perceptions may be influenced, lends a certain distance, thus avoiding building a competing social interaction which might interfere with the student's primary interaction with the LSA.

To illustrate the difference between an indirect and a direct approach to student representation or behaviour using TSII, consider a situation in which I might musically reflect a student's behaviour or inferred representation, as evidenced by subtle signs in how the student responds to the LSA. This musical reflection might function to influence the LSA's behaviour towards the student or to alert her to what the student is doing or how (s)he might be feeling. These are indirect approaches, classified as scenarios 3 and 4, with the LSA's behaviour and representation as the "port of entry" with the student's behaviour and representation as the ultimate target. The same musical reflection of a student's behaviour or inferred representation might also have the effect of supporting or influencing the student's behaviour or representation by a direct approach, categorised as scenarios 1 and 2, with the student's enactment or representation as both port of entry and target.

6.5.4. The theoretical model of the spread of influences throughout the system

Stern (ibid.) makes it clear that the effects of a clinical intervention at one point of entry pervade the whole mother-infant system. To show how the same systemic process was possible in the music therapy setting, I created for the pilot study the following diagrams and commentaries (Figure 1a – k, pages 81 – 91).

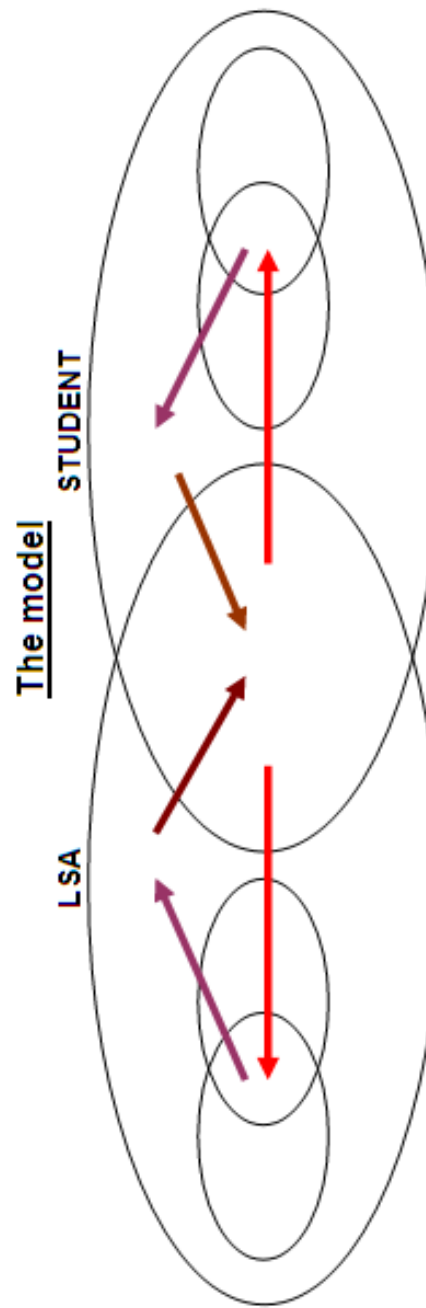
Introduction to the theoretical model

When a student with PMLD is assigned a consistent LSA or carer, it may be more helpful to foster the student's development through that relationship than through a new relationship with a therapist the student only sees once a week. The PMLD student-LSA relationship has points in common with the mother-infant relationship and I have decided to investigate it using an approach from that related field. I have adapted a theoretical model from ideas in Stern's book "The Motherhood Constellation" (1998) in which he classifies mother-infant psychotherapies in terms of the therapist's point of entry into the mother-infant system. By point of entry he means that element of the system on which the therapist first focuses his intervention. In the examples he gives, this does not always mean working to *change* that element. For example if the point of entry is the infant's observable behaviour, the therapist might draw the mother's attention to the behaviour and its possible meaning.

In adapting this classification framework for use with the student-LSA interactions on these clips, I would like you to interpret "point of entry" more simply as that element which the therapist tries to *influence* with his music. This is shown by the first thick arrow in the diagrams for each scenario which follow. The thinner arrows show possible knock-on effects whereby the whole system of behaviours and representations may be changed, but I am only asking you as you watch the video to decide the "point of entry" – what I am trying to influence first. You may feel that different scenarios apply at different points in a clip. This may be indicated on the musical transcription of the clip which will be provided when you view the clip. An example of how to do this follows the theoretical models.

Please note that "influence" need not imply "change". It may equally involve supporting and reinforcing what is already occurring. This is explained in the notes to each *scenario*, although each set of notes then goes on to explore only the effects of using music to bring about change.

Figure 1a: The theoretical model, page 1



The two large ovals represent the observable behaviours of a learning support assistant (left) and a student (right). The overlap represents their interaction, to which each contributes. In some cases it may be more accurate to speak of a potential interaction, if there is little contribution from the student.

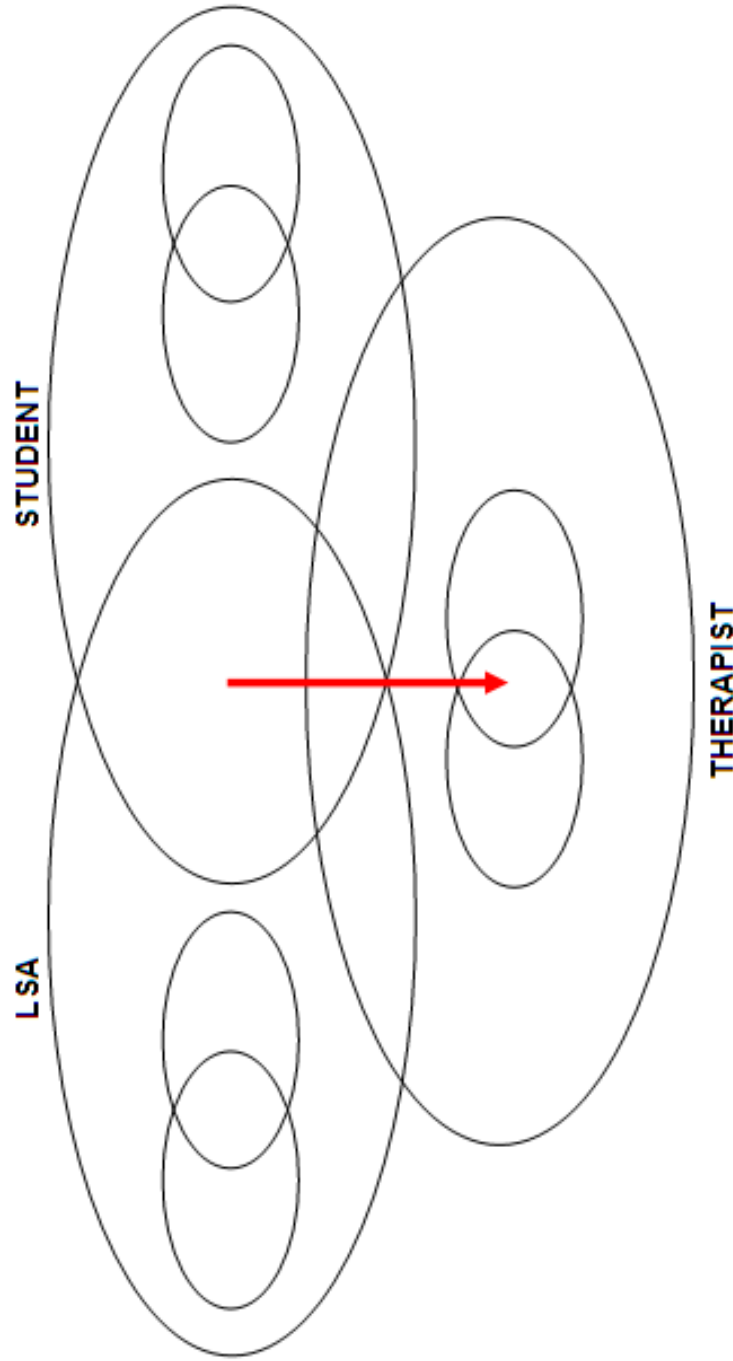
Each partner has both a history of interpersonal interaction stretching back to their "first relationship", which contributes to her/his attachment style, but also some past experiences of being together in this particular relationship, which will have coalesced into a "representation" – an internal picture of what the relationship is like, what to expect from it, and how to behave within it. The overlaps of the small ovals stand for the partners' representations of this relationship.

These representations influence how the partners interact now. Being together evokes behaviours, which Stern calls "enactments" of these representations. If either partner behaves in a new and unfamiliar way

that will change the interaction.

Stern emphasizes that people's representations cannot be perceived directly, but only inferred from their enactments in observable behaviour. It follows that each partner can only be influenced by the other's behaviours and not directly by her/his representations.

Figure 1b: The theoretical model, page 2



The diagram now includes the therapist. He needs to get as close to the interaction as he can without creating a new dyadic relationship between himself and one partner which could exclude the other partner. He enters musically rather than socially into the interactive space. This gives him an "insider" perspective on the interaction. **He develops his own representation of the interaction, which may not be the same as that of either partner because it has been rapidly developed from the evidence of a relatively brief exposure to the interaction.**

The therapist may wish to support and encourage the interaction he observes, or he may feel the interaction needs to change. He now has a choice of different ways to apply his music to provide such support or to encourage change. His intervention may be directed at either partner, and at either that partner's behaviour or her/his representation of the interaction. The four possible "points of entry" into the system are now illustrated as four "scenarios". The accompanying notes focus on the process when the therapist tries to initiate a change, but he may equally wish to support the status quo.

Figure 1c: The theoretical model, page 3

Scenario 1

The therapist's "point of entry" is the LSA's behaviour

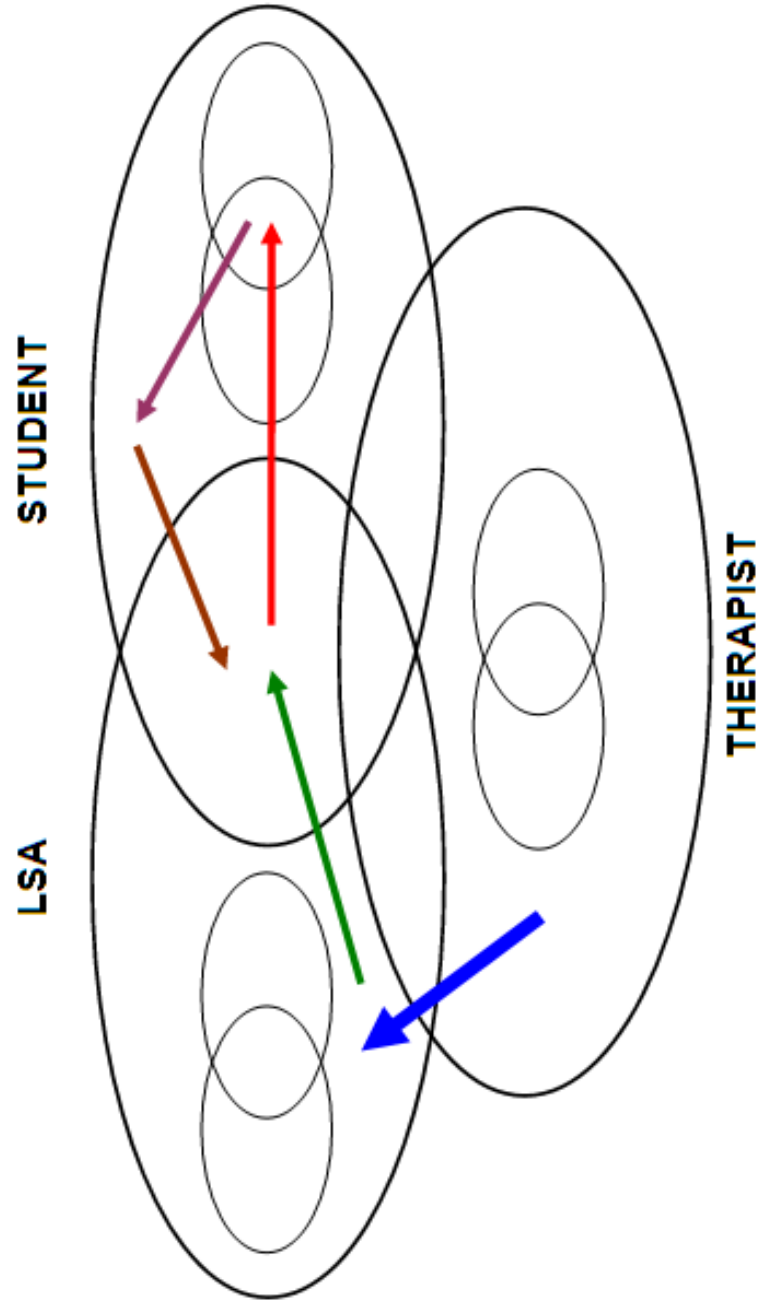


Figure 1d: The theoretical model, page 4

SCENARIO 1: THE THERAPIST INTERVENES TO INFLUENCE THE LSA'S BEHAVIOUR

The therapist decides to address the LSA's behaviour musically, rather than verbally supporting it or suggesting it might need to change. If he decides a change is needed, it may not be wise to model a changed behaviour for the LSA by interacting directly with the student. This might exclude and disempower the LSA, and also give the student mixed messages about how others see her and expect her to behave.

THE LSA'S CHANGED BEHAVIOUR MODIFIES THE INTERACTION

The LSA's changed behaviour changes the interaction with the student. However, this is one changed interaction following a history of interactions in which the LSA may have behaved differently. It may take many repetitions of the changed interaction before the partners' representations are significantly changed. The therapist should therefore continue the musical input that brought about the change in the LSA's behaviour.

THE CHANGED INTERACTION CHANGES THE STUDENT'S REPRESENTATION

Eventually the changed interaction will change the student's representation of being with the LSA – what it feels like, what to expect and how to act. The LSA's representation also needs to change, so that the change in the LSA's behaviour may endure when musical support is no longer provided. This is omitted from the diagram for simplicity.

THE STUDENT'S CHANGED REPRESENTATION IS ENACTED IN CHANGED BEHAVIOUR

The student now has a different representation of being with the LSA – what it feels like, what to expect and how to act – and this is enacted in changed behaviour. For example if she has realized for the first time that the LSA is listening to her, or that her behaviour can influence the LSA, her motivation to communicate and experiment will be increased.

THE STUDENT'S CHANGED BEHAVIOUR CHANGES THE INTERACTION

Because the student is behaving differently, the interaction with the LSA has also changed. This has been brought about as a result of the therapist first addressing the LSA's behaviour.

Figure 1e: The theoretical model, page 5

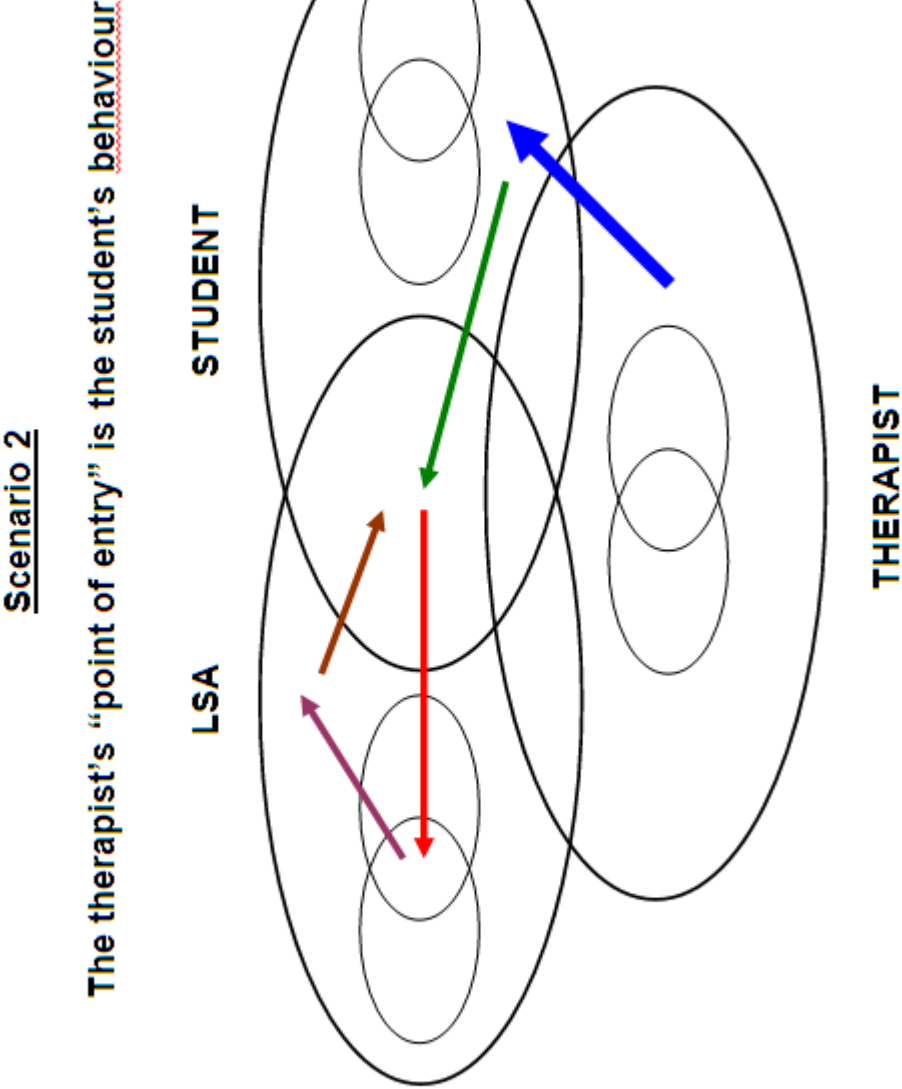


Figure 1f: The theoretical model, page 6

SCENARIO 2: THE THERAPIST INTERVENES TO INFLUENCE THE STUDENT'S BEHAVIOUR

The therapist decides to address the student's behaviour through his music rather than verbally supporting it or suggesting it might need to change. If he decides a change is needed, he tries to avoid interacting socially towards the student as this may interfere with the interaction between student and LSA.

THE STUDENT'S CHANGED BEHAVIOUR MODIFIES THE INTERACTION

The student's changed behaviour changes the interaction with the LSA. However, this is one changed interaction following a history of interactions in which the student may have behaved differently. It may take many repetitions of the changed interaction before the partners' representations are changed. The therapist should therefore continue the musical input that caused the change in the student's behaviour.

THE CHANGED INTERACTION CHANGES THE LSA'S REPRESENTATION

Eventually the changed interaction will change the LSA's representation of being with the student – both her own feelings and her expectations of how the student is likely to behave, how he sees her, and how to respond. The student's representation will also begin to change. This is omitted from the diagram for simplicity.

THE LSA'S CHANGED REPRESENTATION IS ENACTED IN CHANGED BEHAVIOUR

The LSA now has a different representation of being with the student, which is enacted in changed behaviour. For example if she has realized for the first time that the student is listening to her, and that the student's behaviour is intended to influence her, her motivation to communicate and to try to interpret and respond to her wishes will be increased.

THE LSA'S CHANGED BEHAVIOUR CHANGES THE INTERACTION

Because the LSA is behaving differently, the interaction with the student has also changed. This has been brought about as a result of the therapist first addressing the student's behaviour.

Scenarios 3 and 4, which follow, focus on representations rather than overt behaviours, in effect bypassing the first two stages in scenarios 1 and 2.

Figure 1g: The theoretical model, page 7

Scenario 3

The therapist's "point of entry" is the LSA's representation

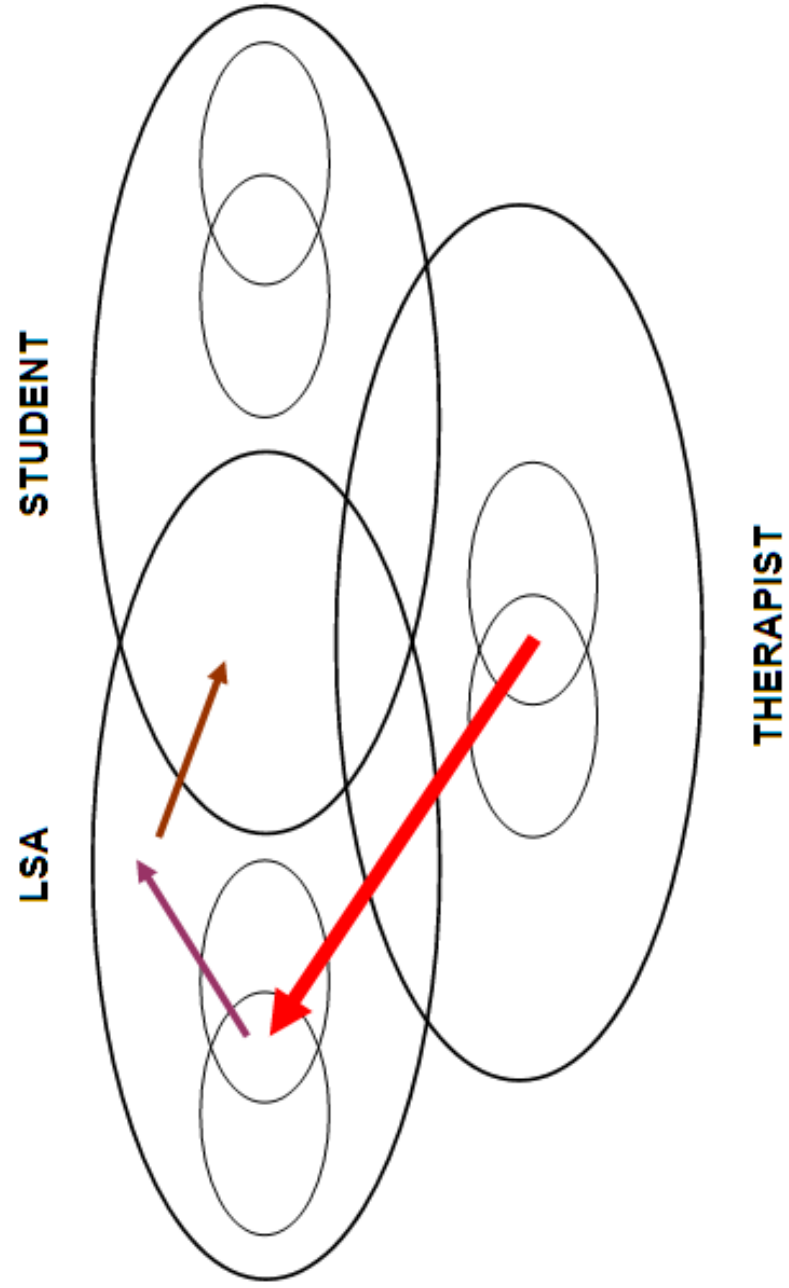


Figure 1h: The theoretical model, page 8

SCENARIO 3: THE THERAPIST TRIES TO INFLUENCE THE LSA'S REPRESENTATION

When the therapist reflects on his own representation of the LSA-student interaction he may wish to reinforce it, but he may consider that the LSA's representation needs to change. In this case he offers in music an alternative representation of the LSA-student interaction. This involves transmitting to the LSA a changed mood rather than a pattern of behaviour.

THE LSA'S CHANGED REPRESENTATION IS ENACTED IN CHANGED BEHAVIOUR

The LSA's representation has changed. She now has a different view of being with the student, which is enacted in changed behaviour. For example if she feels more relaxed and optimistic about her interaction with the student, her motivation to interact will be increased and she will be able to be more creative.

THE LSA'S CHANGED BEHAVIOUR CHANGES THE INTERACTION

Because the LSA is behaving differently, the interaction with the student has also changed. This has been brought about as a result of the therapist first addressing the LSA's representation

Figure 1i: The theoretical model, page 9

Scenario 4

The therapist's "point of entry" is the student's representation

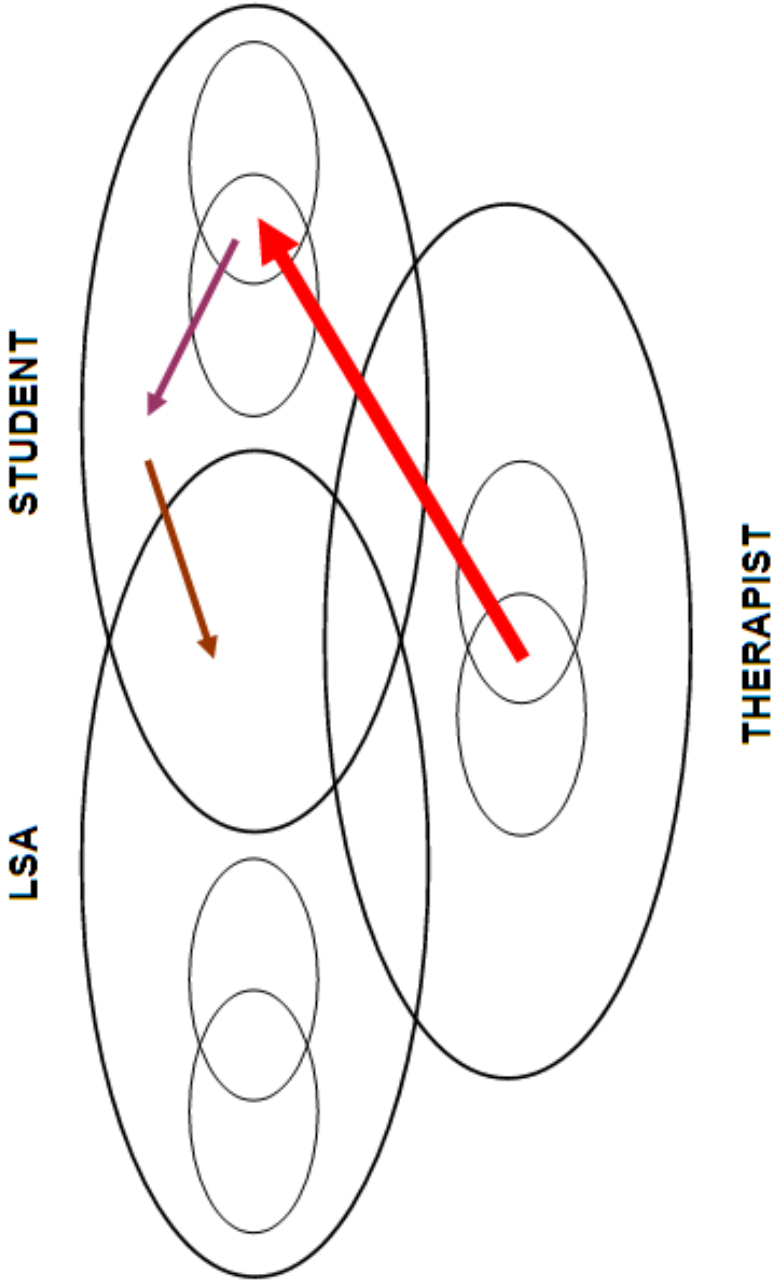


Figure 1j: The theoretical model, page 10

SCENARIO 4: THE THERAPIST TRIES TO INFLUENCE THE LSA'S REPRESENTATION

When the therapist reflects on his own representation of the LSA-student interaction he may wish to reinforce it, but he may consider that the student's representation needs to change. In this case he offers in music an alternative representation of the interaction. This involves transmitting to the student a changed mood rather than a pattern of behaviour.

THE STUDENT'S CHANGED REPRESENTATION IS ENACTED IN CHANGED BEHAVIOUR

The student's representation has changed. She now has a different view of being with the LSA, which is enacted in changed behaviour. For example if she feels more relaxed or more excited about her interaction with the LSA, her motivation to interact will be increased and she will be able to be more creative.

THE LSA'S CHANGED BEHAVIOUR CHANGES THE INTERACTION

Because the student is behaving differently, the interaction with the LSA has also changed. This has been brought about as a result of the therapist first addressing the student's representation

The music therapists would be asked to study these diagrams and the accompanying notes before meeting me to view the video clips. The diagrams were intended to illustrate how, as a result of the music therapist's initial musical intervention, a further possible sequence of influences from one element of the system to another could eventually exert an influence on the student-LSA interaction. As explained on the first page (Figure 1a) I did not expect the therapists, while watching the video clips, to conceptualise the whole systemic process, but simply to make judgments of whether my improvised music was clinically directed at the student or at the LSA, or whether at that person's behaviour (enactment) or at their perceptions, beliefs and feelings about the interaction (representation) – in other words, to decide which scenario was dominant. Having primed my collaborators by expounding 'The Theoretical Model' (Figures 1a-k) they were then required simply to focus their attention on the initial target of the improvised music which, perhaps confusingly, actually corresponds to Stern's (1998) 'point of entry' rather than to his 'target'.

My intention in creating the diagrams was to point out that my ultimate aim of developing student-LSA interaction could be approached indirectly from a variety of starting points. Although therapists' responses were to be expressed using the framework of four scenarios, I was clear that they should only use this as a way to organise their responses, and not see it as a list of processes that would necessarily be present in every example. They should therefore be free to respond in terms of as many or as few of the scenarios as they wished. The prevalence of the four scenarios might be unequally distributed within and between clips and some scenarios might possibly apply to none of the clips. It should be noted that the order of scenarios for the pilot study (Figures 1a-k) differed from that in table 2, which shows the final order used in the main study (9.1.6. and Figures 2 and 3).

6.5.5. Mapping TSII onto a taxonomy of improvisatory techniques

Despite the fact that TSII had not to my knowledge previously been described, I suspected that the improvisatory techniques I had been using in TSII were far from revolutionary. Bruscia (1987) provides an exhaustive list of improvisatory techniques in the final section of his investigation of models of improvisatory music therapy. Some items from his list are typically found in work with learning-disabled clients, and I was interested to see whether these could be divided into techniques for encouraging, sustaining and reinforcing on the one hand and techniques for modifying, changing and challenging on the other, and also into techniques addressing behaviour and techniques addressing underlying feelings. Table 3 illustrates that such a two-dimensional classification of items from Bruscia's list is

possible. The fourth quadrant is sparsely populated, because Bruscia (ibid.) describes music-psychotherapeutic techniques mainly in terms of verbal interactions which would not be accessible to PMLD clients (although musical analogues of these techniques might be). It is interesting to note, however, that purely supportive techniques are easily distinguishable from those intended to bring about change, and those targeting behaviour from those targeting internal processes. The distinction between music targeting the student and music targeting the LSA is not covered by Table 3 because the involvement of the LSA is peculiar to TSII and not discussed by Bruscia (ibid.).

Bruscia extracted his list of techniques from an analysis of many literature sources describing improvisatory therapy, and gave many of them labels which are not in common usage amongst music therapists. He defined each technique in terms of its therapeutic purpose, describing the musical means of achieving that purpose only in very general terms, in contrast with the precise descriptions, notated illustrations and audio examples given by Wigram (2004). My sole purpose in creating Table 3 was to show that the distinctions between observable behaviour and internal processes and between supportive and more challenging techniques are well established in music therapy theory.

Clinical intention Client function		
	To support, encourage, reinforce, sustain, affirm	To develop, modify challenge, change
Musical or other observ- able behaviour	<u>Techniques of empathy</u> Imitating, synchronising, incorporating, pacing, exaggerating <u>Structuring techniques</u> Rhythmic grounding, tonal centering <u>Techniques of elicitation</u> Making spaces, extending, completing <u>Procedural techniques</u> Receding	<u>Structuring techniques</u> Shaping <u>Techniques of elicitation</u> Repeating, modelling <u>Redirection techniques</u> Introducing change, differentiating, intervening
Internal processes	<u>Techniques of empathy</u> Reflecting <u>Techniques of intimacy</u> Soliloquys <u>Emotional exploration techniques</u> Holding, doubling	<u>Redirection techniques</u> Intensifying, calming <u>Emotional exploration techniques</u> Making transitions, integrating

Table 3: Techniques appropriate for PMLD clients classified by target and intention

6.5.6. The need for a continuous response method

The music in music therapy, including improvised music provided by the therapist, happens and is perceived in real time. Any reflection upon its meaning occurs mainly during pauses in the music making or after the session is over. If the music therapists assessing the clips are to get as close as possible to the experience of those for whom the improvisation was provided, they should be asked to respond to the music in real time, prior to any reflection upon it. Noticing in the pilot study interviews that most of the music therapists' responses to the video clips were marked on the musical scores between, rather than during, viewings of the video clips prompted me to invent, for the main study, the continuous response method described at 9.1.6., 9.1.8. and Figures 2 and 3.

6.5.7. The use of a panel discussion to compare and discuss individual responses

I was aware that if I myself attempted to synthesise the responses of the three therapists it would be tempting to resolve any disagreements by supporting the judgments which I personally found more convincing. To avoid the risk of bias the three therapists should meet after all individual responses had been transcribed, to discuss and defend their judgments. Where differences were not resolved all views would be given equal weight.

6.6. The place of my own views on musical features and clinical intentions

In supplementing the contributions of the LSAs and music therapists with thoughts of my own on the music and its influence, I would need to make it clear that my account was not intended to supersede those of the LSAs and music therapists but to stand alongside them. The chief purpose of a retrospective first person analysis and commentary on the therapeutic process would be as an attempt to understand the clinical thinking that may have guided my interventions at the time.

We are now in a position to set out the research methods for the five stages of investigation which were decided upon as a result of the foregoing methodological reflections, to describe the findings, discuss their implications and consider any limitations which need to be noted. This will be the task of Part B.

PART B: FIVE STAGES IN RESEARCHING TSII

The search for an understanding of TSII was pursued in five stages. The first, an online survey of current practice, explored the extent, nature and effectiveness of the use of assistants in work with profoundly disabled clients. The second looked at clinical examples of TSII through the eyes of the participating assistants. The third and fourth used the same group of three independent music therapists, first to respond continuously in real time to the video clips according to a specific theoretical framework, and then to meet as a panel to compare their responses and relate them, using clinical judgment, to transcriptions of the music. Finally I conducted my own first person investigation of the clinical material from the perspective of therapist-researcher.

Because each of the five stages, despite serving a common quest, used distinct methodology and yielded distinct findings, it will be clearer to deal thoroughly with each in its own chapter before attempting to bring all the findings together in Part C.

Chapter 7: Stage I – The online survey

7.1. Online survey – Method

An online survey of UK music therapists working in learning disability was designed and administered in order to obtain a picture of the extent and nature of their use of music therapy assistants.

7.1.1. Construction and administration

The survey was constructed using an online template and software analysis programme, available under license to Anglia Ruskin University from Bristol University. It was made available for completion between 24/05/11 and 31/07/11. The link to the survey was notified to members of the Association of Professional Music Therapists (APMT) first by email and later via the APMT monthly bulletin. I did not pilot the survey because the pilot group would have to have been excluded from the main survey, thus reducing the numbers. The following is a summary of the questions and instructions to respondents. The full text of the survey is given in Appendix 2.

7.1.2. Content

The introductory page explained that the survey was “intended to discover how widely, and in what ways, UK music therapists use assistants such as care workers, learning support assistants or volunteers when working with clients with profound disability.” Anonymity and data security were guaranteed. It was made clear that those with no experience of profound disability need only answer the first two questions, but should still return the survey. Questions 1 and 2 asked about respondents’ length of clinical experience and how much of that experience had been with profoundly disabled clients. Those with no such experience were not required to answer the remaining questions.

Question 3 asked about the settings in which respondents had worked with profoundly disabled clients. A large number of possible settings were listed, with the instruction to “tick all that apply” or use the “other” category. Question 4 enquired about the reasons for involving assistants in sessions. A large number of possible reasons were offered, with the instruction to “tick all that apply” or use the “other” category.

The next four questions concerned respondents’ personal experience of working with assistants. Question 5 asked which of the assistant roles respondents had listed for question 4 had generally been fulfilled effectively, with a note to the effect that failure to

fulfill a function need not imply any deficiency in the assistant. Question 6 asked about unforeseen disadvantages of using assistants, over and above failure to fulfill the intended functions, again with a note explaining that this need not reflect adversely on the assistants' ability or attitude. Question 7 asked what difficulties assistants themselves might experience, which could explain why they had either failed to fulfill desired functions or caused additional problems. Many possible reasons were listed, with the instruction to “tick all that apply” or use the “other” category. Question 8 asked about “unforeseen advantages from the inclusion of assistants”, defined as “positive outcomes ... other than the original reasons for their inclusion”. Question 9 asked why respondents supposed more has not been written about the use of assistants, and asked for details of any publications on the subject known to them.

7.2. Online survey – Results

7.2.1. Length of respondents' clinical experience

Table 4 shows the length of clinical experience of the respondents to the survey and Table 5 the proportion of their clinical work involving profoundly disabled clients. Questions 1 and 2 were intended for all members of the professional association, and the remaining questions only for those with some experience working with PMLD. However, as Table 5 shows, only two out of fifty-one respondents stopped after question 2. As more than 4% of those invited to complete the survey would have lacked experiences of PMLD, it appears most decided to ignore the survey entirely, knowing they would not be able to contribute information on the main topic.

The high proportion of experienced therapists in Table 4 is probably not representative of the professional membership as a whole. This is because for the majority of music therapists who have worked in more than one clinical area, the likelihood of having gained experience of learning disability at some point in their career increases with length of service. The percentages in tables 4 and 5 are calculated in respect of the total number of responses (51).











1. How long have you practised as a music therapist? No/51			
1.a. Duration -- Total years			
Less than 1:		7.8%	4
1 - 3:		19.6%	10
4 - 8:		25.5%	13
9 - 15:		19.6%	10
More than 15:		27.5%	14
1.b. Full-time equivalent -- Total years			
Less than 1:		15.7%	8
1 - 3:		19.6%	10
4 - 8:		23.5%	12
9 - 15:		21.6%	11
More than 15:		19.6%	10

Table 4: Length of respondents' clinical experience

7.2.2. Proportion of clinical work with profound and multiple learning disability






2. What proportion of your work has been with clients having profound intellectual disability or profound and multiple disability? No/51			
0 per cent:		6.1%	2
1 - 10 per cent:		24.2%	8
10 - 30 per cent:		12.1%	4
30 - 60 per cent:		36.4%	12
Over 60 per cent:		21.2%	7

Table 5: Proportion of clinical work with profound and multiple learning disability

Question 2 invited respondents to report on their whole career, so that their answers are probably an over-estimate of how much of their *current* case load consists of clients with profound and multiple learning disability. The largest proportion of respondents report spending between 30% and 60% of their time working with PMLD clients, although some may have reported the proportion of their case-load of clients instead of proportion of clinical time as intended. It is also uncertain whether therapists treating groups containing only a minority of members with PMLD have included those groups in their totals.

7.2.3. Settings in which respondents have worked with PMLD clients

3. In which settings has your work with profoundly disabled clients taken place? (no/49)	
Special school or unit - secondary:	24
Special school or unit - primary:	23
Adult learning disability partnership (NHS Social Services):	7
Pre-school - Surestart or other playgroup:	4
Mainstream school - primary:	4
Further education college:	4
Adult education setting:	4
Pre-school - clinic:	3
Neurology:	3
Voluntary sector youth setting:	2
Mainstream school - secondary:	1

Table 6a: Number of respondents who have worked in the settings provided

In Table 6a and subsequent tables percentages are not given because the answers are not mutually exclusive. I have re-ordered answers according to the frequency with which they were selected. (The original order of presentation of the choices in this and other similar cases may be seen in Appendix 2.) Of the categories provided, special schools were most frequently selected. The proportion of child to adult work does not appear so unbalanced when the diverse range of answers in the category “other” (Table 6b) are included. Many of the settings described could have been subsumed within the categories provided, but respondents apparently wished to make distinctions they felt the categories would obscure. Nevertheless, similar services do sometimes seem to have been given different titles. A simpler picture could have been created by basing categories on client groups rather than

work settings. On reflection, children's hospices (five mentions) and residential homes of various kinds (eight mentions) should have been included in the list of suggested answers.

Children's Hospice	5
Private care home	2
Activity Centre for people with LDs	1
Adult residential care home	1
At a music therapy centre set up by a national charity	1
Care Home	1
Children's Hospital	1
Clients at an Arts Therapies Centre	1
Community NHS referrals	1
Day Centre Multi media arts centre	1
Hospice	1
Music therapy clinic	1
MT clinic Adult learning disability partnership (charity)	1
Pre-School Centre (NHS/Social Services/ Education)	1
Private home	1
Private work in care homes	1
Residential homes	1
Residential Units	1
Charity providing services for adults and children with PMLD	1
Voluntary sector music therapy service for adults and children with PMLD	1
Adults + children at purpose built MT studio for a charitable trust.	1

Table 6b: Other work settings mentioned by respondents

7.2.4. Reasons for including assistants in sessions

In Tables 7a and 7b,. The total number of responses is given as 48 because one respondent stated that (s)he had never used assistants. Answers have again been re-ordered by frequency. In Table 7a the four reasons most frequently selected from the list for including assistants in sessions are not music-therapy specific, and might apply to any form of intervention with PMLD clients. It is highly significant for this study that the most cited of the music therapy-specific reasons for including assistants is to be clients' interaction partners. It would be interesting to know what proportion of the respondents who used assistants as interaction partners may have adopted procedures similar to TSII.

4. What have been the factors leading to the inclusion of assistants in your sessions? No/48	
Physical support for clients:	40
As escorts to and from sessions:	36
Security, e.g. preventing injury or fleeing:	33
Medical or care needs of clients:	31
As interaction partners for clients:	23
As intermediary with greater knowledge of clients' communication needs:	22
Modelling musical or other behaviour:	18
Practical help with setting up etc. at my request:	15
To facilitate musical games and activities:	14
Observation and record-keeping:	9
As a precaution because of concerns about abuse:	5

Table 7a: Reasons for using assistants, ordered by number selecting response

To reassure and support clients who find it scary to attend a new, strange situation	1
As work senior students' experience placements, to benefit both clients and student	1
To encourage skills in assistants	1a/1
Helping educate staff about music therapy	1a/2
So that they can learn about the clients	1b/1
So that they can learn about musical opportunities for interaction	1b/2
To assist understanding by carers/assistants of the music therapy process	1c/1
So they may be able to continue such activities between weekly sessions	1c/2

Table 7b: Other reasons given for including assistants in sessions

Table 7b shows the additional reasons given in the category “other”. (Lower case letters indicate separate elements of composite answers.) Providing reassurance for a client who might otherwise be excessively anxious or even refuse to attend music therapy was a reason with which I was familiar, and should therefore have been included in the suggested answers. The remaining suggestions, shaded green, do not specify assistants’ role in sessions. Most of these concern developing their skills and understanding, perhaps with the

implication that they would be given a specific role as soon as they are ready to fulfil it. 1a/2 could imply enhancing assistants' ability to advocate for music therapy with professional and managerial staff who do not experience the sessions. 1b/1 could imply learning skills to support clients in non-musical contexts.

7.2.5. The effectiveness with which assistants fulfil assigned roles

In Table 8a the first column of figures gives the number of therapists finding that assistants successfully fulfilled each of the roles listed. The second column gives the number (in brackets) who assigned assistants to each role according to their answers to question 4. However, as question 5 did not make clear whether respondents should comment only on roles for which the assistants had initially been included or on all the roles listed, the comparison of these two columns does not tell us how many assistants failed to live up to expectations. This information may be seen in the third column, which is a cross tabulation of questions 4 and 5. Thus although 38 therapists reported that assistants were effective at providing physical support for clients, this was made up of 33 of the 40 who had included them for this purpose plus 5 who had not foreseen using them in this way.

5. Which of the following functions have you found that assistants were able to fulfil effectively as a rule?	No/48		
Physical support for clients:	38	(40)	33
As escorts to and from sessions:	36	(36)	33
Security, e.g. preventing injury or fleeing:	32	(33)	32
Medical or care needs of clients:	30	(31)	29
As intermediary with greater knowledge of clients' communication needs:	25	(22)	18
As interaction partners for clients:	22	(23)	16
Practical help with setting up etc at my request:	21	(15)	15
Modelling musical or other behaviour:	19	(18)	15
Observation and record-keeping:	15	(9)	9
To facilitate musical games and activities:	12	(14)	8
As a precaution because of concerns about abuse:	5	(5)	3

Table 8a: The effectiveness of assistants

In Table 8b, showing responses in the category “other”, unshaded answers relate to direct benefits to the therapy, experienced during sessions, and those shaded green refer to more general benefits. Those shaded blue do not address the question which was asked.

I experienced a case where an autistic child with EBD has been very attached to his 1-1 LSA and this has been a beneficial part of sessions as the child in question had insecure attachment to his parent and his positive attachment to his 1-1 LSA needed nurturing.	1
I valued a few assistants over the years who were musical themselves and eager to learn techniques and observe the client's responses. However I also have worked in co - therapy teams, which I love, and the privilege of which makes the use of assistants remoter.	1
Letting me know what behaviours / interactions were usual or unusual.	1
Improving understanding of the work by the team as a whole. Supporting consistency between music therapy and other settings.	1
Increased understanding of purpose of sessions. Activities between weekly therapy sessions.	1
This was after supportive input, including working on relationships with assistants.	1
I would say that whilst some assistants have fulfilled the roles effectively, there are others who haven't, or some assistants who have fulfilled some roles effectively and not others.	1
Sometimes the security problem was important for a week or two, but I invariably moved to a position where it wasn't necessary.	1

Table 8b: Additional suggestions and comments about assistants' effectiveness

7.2.6. Unforeseen disadvantages of including assistants in sessions

In answering question 6, one respondent said there were fewer problems in work with PMLD clients than in work with more cognitively able clients, and one gave effusive praise for all but one of the her/his assistants. Nevertheless all but three respondents reported encountering unforeseen disadvantages of using assistants. However, when assistants were included for medical or management reasons, disadvantages may be foreseen but still included under question 6 in the absence of any question about *foreseen* disadvantages. Some answers to question 6 may have been prompted by suggested reasons

for problems with assistants provided for question 7. Table 9 organises answers by themes, summarised on the left, in descending order of the number of contributing responses.

Directive tendencies and an educational approach	Assistants might be too directive, assuming that clients <i>ought</i> to play and sometimes assisting them to do so when they were unwilling. Many found it difficult to wait for clients to respond and would therefore prompt them. There might be inappropriate physical or verbal interventions, and reinforcement for what the assistant considered “good” behaviour. Such problems could be very persistent, even when assistants were repeatedly reminded that their behaviour was unhelpful.
Inappropriate conversation or commentary on the therapy	Assistants often seemed ill at ease or bored and lacking motivation. This led to chatting during the session which distracted clients and prevented assistants from attending to what was happening. The mere presence of another adult could distract some clients.
Confusion and conflict	Having two people to whom to relate could be confusing to the client. The client might relate to the assistant rather than to the therapist, and the assistant might actually encourage this. Assistants might be confused as to their role, and so might the therapist.
Inconsistency of personnel	Different assistants might be sent with the client from session to session, so that some or all were unfamiliar with the situation and with what was required of them, and continuity was disrupted. This was attributed to management decisions to allocate assistants seemingly randomly or according to a rota.
Inappropriate expectations	Therapists could feel that they were being judged and compared with a previous therapist. Clinical decisions could be affected by feeling they must show rapid “results”.
Insensitivity or resistance to clients’ feelings	Some assistants discouraged expressions of emotion by clients when they felt these indicated distress, or when they themselves found it distressing. Some assistants seemed unaware of the adverse effect of discussing a client’s responses in his/her hearing.
Intrusion of assistants’ personal issues	Assistants’ personal issues could affect their style of relating to the clients or even be played out in inappropriate behaviour in the therapy room.

Table 9: Unforeseen disadvantages of including assistants in sessions

7.2.7. Reasons why assistants might have been ineffective or caused problems

7. What do you think were the reasons assistants either failed to fulfil desired functions or caused additional problems? No/48	
Assistants worked with the same clients in settings where expectations were different:	26
Referring institution or individual had different expectations from your own:	20
Referring institution or individual had different expectations from your own:	20
Obstacles to your attempts to provide training to assistants:	12
Inadequate training by assistants' institutional line management:	11
Referring institution or individual gave specific instructions different from your own:	6

Table 10a: reasons for problems experienced in using assistants

In Table 10a the suggested answers have been re-ordered according to frequency of citing and in Table 10b additional suggestions are grouped into themes, ordered by frequency.

Assistants' anxiety	Assistants might be ineffective because of anxiety arising from the contrasting attitudes to certain client behaviours in the therapy room and elsewhere, for example in the classroom, or from the painful feelings clients evoked in them. In extreme cases assistants might attempt to escape from their role in order to avoid this sort of conflict.
Insufficient training	Problems arose when assistants were inadequately prepared by the therapist because of the difficulty of organizing training in advance or because assistants did not fully absorb such training.
Inconsistency of personnel	See comments under the fourth theme in table 12. Inconsistency was attributed to therapists' line management.
Staff demoralization	Job cuts are demotivating, which has an adverse effect on the assistants' work, which in turn impacts negatively on the clients.
Musical insensitivity	One respondent gave lack of musical skill as a cause of problems with assistants. This suggests (s)he may have felt it was a handicap to them when performing their role, rather than something for which they should be held responsible.

Table 10b: Additional suggestions of problems with assistants

7.2.8. Unforeseen advantages of using assistants

In question 8 “unforeseen advantages” meant those which were not among the reasons for inclusion identified in question 4. In Tables 11 and 12, responses have been grouped into themes, ordered by the number of respondents whose answers they subsume.

Promoting understanding of music therapy in the institution	Some assistants were astonished and moved by discovering in music therapy what the clients were capable of. They were then eager to spread the word, and became advocates for music therapy within the institution. Improved understanding could then help the institution to make more appropriate referrals.
Helping therapist understanding	Therapists could learn background information about clients, including their functioning in other settings, enhancing their own understanding and effectiveness.
Observation during sessions	Assistants were able to observe details which the therapist missed, especially in group settings, and to feed back their observations after sessions.
Client-assistant relationship – interaction	The presence of an additional adult can enrich the relationships possible. A pre-existing client-assistant relationship could be an advantage, and one answer referred to facilitating this relationship during the therapy. Two respondents referred to three-way relationships and activities.
Increasing assistants’ skills	Aspects of good practice already mentioned were often cited as evidence of assistants’ steady acquisition over time of skills they did not initially possess.
Increasing client responsiveness	An assistant actively collaborating with the therapist could increase the responsiveness of clients, particularly those with profound disabilities.
Freeing therapist to focus on therapy	Therapists welcomed the support of assistants primarily responsible for care needs which would otherwise complicate the therapist’s role.
Giving a feeling of security	The assistant’s reassuring presence is the factor which enables the client to engage with the therapy and the therapist, without the assistant necessarily becoming actively involved.
A specific musical function	One respondent found that with guidance an assistant in a group could “provide a beat” (which could either mean maintaining or simply <i>modeling</i> a beat) yet remain free to exercise her/his own musicality.

Table 11: Unforeseen benefits of assistants

7.2.9. Accounting for the dearth of writing on the use of assistants

Question 9 sought respondents' views on why the use of assistants, though common, as demonstrated by this survey, is seldom acknowledged in the literature.

The use of assistants should be written about	The dearth of literature is surprising and regrettable, given the widespread use of assistants. Research, case studies and training resources would all be welcome. One item was identified and has been included in the literature review. Another was mentioned, but the respondent was unable to trace it.
The situation is not ideal, and therefore hard to write about	Problems already identified are beyond therapists' control and make them reluctant to write about work whose quality they consider compromised, or about the problems encountered, because their complexity would make this too arduous.
Assistants are not important	Some respondents minimised the significance and relevance of assistants to the core purpose of therapy. Others opposed this view, but conceded that it is commonly held and might discourage therapists from writing about assistants.
It is hard to generalise	Settings, circumstances, assistants and therapists' perceptions and attitudes vary so widely that the topic is too complex to discuss adequately and with confidence.
Few therapists work with assistants	The use of assistants is unusual and not what the profession was trained for. Little has been written on group work (sic), the main context where assistants are used.
It threatens professional status	Writing about the use of assistants might damage a professional image it has taken time and effort to establish.
It is not a priority	There are other more pressing issues, so that given the limited time most therapists have for writing, the topic of assistants should not be a priority.
Written guidance might not be useful	Learning the assistant's role experientially is most effective and training them in advance may not be much use.
It might exacerbate negative attitudes	The conflict between the assumptions of assistants and institutions and what therapists might wish to advocate discourages them from writing. Psychodynamic thinking can be experienced as a threat by institutions.

Table 12: Reasons why little has been written about assistants

7.3. Online survey – Discussion and conclusions

The survey demonstrated that the use of assistants with profoundly disabled service users is much more widespread than its representation in the literature would suggest. The responses concerning advantages and disadvantages of using assistants show how very differently their presence and contribution can be experienced depending on circumstances, attitudes and personalities. Factors determining whether assistants are seen as an asset or a liability include therapist training, skills and attitude, but are also often matters of good or bad institutional management. On the whole, assistants were more often seen as a potential asset than as a liability.

7.4. Online survey – limitations

A common criticism of surveys is that by misusing statistics and including leading questions they can be made to prove whatever the canvasser wishes. Despite the limitations to be discussed, I do not believe this criticism can be levelled against the present survey. There were however certain limitations inherent in the design and/or its execution.

7.4.1. Response rate

The response rate, though adequate for purpose, was not high enough to justify disseminating the findings as an accurate representation of the views of the whole UK profession. For unexplained technical reasons, many members of the UK professional association did not receive the email containing the survey link. Although all eventually received the monthly bulletin, the announcement of the survey was placed unobtrusively near the end of a list containing a wealth of other announcements where it might easily be missed. In these circumstances, the response tally of 51, just over 10% of the membership, is a satisfactory response rate, but the apparent reluctance of those without PMLD experience to respond (7.2.1) means that the responses do not accurately reflect the proportion of UK music therapists who work, or have worked, with PMLD clients. As in most surveys, especially where no material reward or incentive for participating is offered, those under excessive work pressure or suffering burn-out are likely to have been under-represented. Survey fatigue as a result of frequent requests to BAMT members to participate in surveys may also have depressed numbers. I do not feel that a more aggressive drive to ensure a high participation rate would have been justified.

7.4.2. Design limitations preventing more detailed analysis

As explained at 7.2.1., Table 4 greatly over-estimates the proportion of music therapists who have worked with PMLD clients, and Table 5 probably overestimates the proportion of more experienced therapists *currently* working in this field. 7.2.5. explains how respondents may have reported assistants' failures to fulfil roles which they might not have been asked to fulfil whereas they were actually asked only to report failures in *assigned* roles. 7.2.6. explains how the number of instances of unforeseen difficulties caused by assistants may have been inflated by the inclusion of some difficulties which therapists predicted but could have been felt an acceptable risk because assistants were essential.

There was a more significant weakness in the design than these individual points. By not requiring separate responses in respect of each of a therapist's work settings, the possibility of investigating any correlations between responses to different questions was effectively ruled out, since different answers might relate to different work contexts. However, in order to obtain even the response rate that was achieved, the survey had to be user-friendly and concise. With separate sets of questions to be answered repeatedly in respect of each work setting, it would have been neither user-friendly nor concise.

7.4.3. Lack of information relating specifically to TSII.

At the start of this study, it was necessary to gain a wide view of the field, for which specific questions about procedures similar to TSII would not have been appropriate. The use of assistants as interaction partners, reported by 23 therapists, is not synonymous with TSII and can be assumed to cover a much broader range of activities than TSII, for example structured, therapist-led activities, perhaps with pre-composed or even pre-recorded music. At this point what is most important is to have discovered how seriously music therapists are thinking about the whole topic of assistant use.

Chapter 8: Stage II – The Interviews with LSAs

8.1. LSA interviews – Method

8.1.1. The selection of video clips

The video clips selected for the LSA interviews and later used in the music therapist interviews and in the music therapists' panel meeting were intended to provide varied examples of individual students interacting with individual LSAs with the support of my improvised music.

From a long list of potential clips, I created a short list (Appendix 5) which was as varied as possible, to show the range of ways in which music might be used and in which students and LSAs might develop their interaction. The long list of forty clips tabulated in Appendix 4 was reduced considerably by eliminating those with poor picture quality or limited visibility of the main characters. I then eliminated duplicate clips of the same student, leaving thirteen clips which I judged the most apt examples of TSII.

8.1.2. Gaining consent for the use of clips

Although NHS REC consent had been obtained to use video clips, specific consent for the clips selected was also required. The three schools who had participated in College Link were asked to communicate on my behalf with parent/carers and learning support assistants, by passing on the sets of documents which may be found at Appendix 3. One school, which had only sent students to music therapy for one year, failed to carry out my request despite having agreed to do so, even after repeated reminders. This meant that no parents or LSAs from that school received my request for permission to use video clips in the study and no clips featuring LSAs or students from that school could be included.

From the remaining eight clips, one was eliminated because the LSA was on maternity leave during the interviewing period and a further one was eliminated between the pilot and the main study because the therapists in the pilot study felt the keyboard music was not sufficiently audible on the recording. This left six clips for music therapists in the main study to consider, but the LSAs considered all seven.

8.1.3. Editing the video clips

Whilst nothing which could be seen or heard in any clip was manipulated by technical means, the precise editing of the fade-in and fade-out points requires explanation. The fade-ins were timed so as to show an interaction between a student and an LSA starting

within a few seconds of the fade-in. Starting a clip when a student response was about to occur could give a naïve viewer an exaggerated view of music's power to evoke a response, but this was not likely in the case of both my groups of collaborators, who clearly understood the clips' function as exemplars.

To keep the clips short enough for three viewings by each LSA during a half-hour semi-structured interview, the maximum viable length was three minutes, which entailed cutting short some of the longer interactions. I tried to fade out each clip so that the music and activity came to a natural break, rather than making a random cut-off, but without giving the impression that the interaction had actually ended at that point if it had not.

The clips were encrypted using open-access encryption software (Truecrypt, 2011), protected by a twenty character password and stored on the hard disk of a laptop computer, with an external backup copy. I only decrypted the recordings immediately before showing them to an LSA, on the premises where interviews took place.

8.1.4. Recruitment of the LSAs

The method of inviting the LSAs to participate was planned in accordance with the requirements of the NHS Research Ethics Committee for the district in which the therapy had taken place. The letter of invitation, information sheet and consent form are shown in Appendix 3. There was a separate set of documents for LSAs who were visible on any of the clips but were not the featured LSA interacting with a student. Two such 'visible' LSAs had left their schools since the therapy took place, and in the absence of their consent I cropped the clips by copying them onto Powerpoint slides and then stretching them until the area to be concealed fell outside the boundary of the slide. All other LSAs from the two schools which had distributed the documentation gave their consent.

8.1.5. LSA Interview protocol

I spoke *extempore*, referring to the protocol given in Appendix 6. Too few LSAs had been recruited for me to be able to set aside a pilot group, but I made minor changes in the protocol after the first interview. The first LSA, whose clip was the longest, decided two viewings of the clip were sufficient, as proposed in the protocol submitted to the NHS research ethics committee. I decided however to add a third viewing for the remaining interviews. According to IRAS guidelines, this had no ethical implications which would oblige me to re-submit the proposal as a substantive amendment. In order to create the relaxed atmosphere needed to elicit spontaneous responses I also abandoned the use of reminder cards for the remaining interviews.

A video camera was positioned so that it recorded the video and soundtrack from the clip we were watching, but only the sound of the LSA's conversation with me. This was to allow me to transcribe comments made during the playing of the clip, or at a pause in a clip, onto the musical score at the precise point in the clip to which they referred.

8.1.6. Transcription and member checking

The entire interviews were transcribed *verbatim*, apart from the substitution of aliases in place of clients' and assistants' real names, using italic script for my own words (Appendix 7a/1-7). Whenever possible, each interview was transcribed and analysed before conducting the next, as recommended by Smith et al. (2009), but sometimes there was not long enough between the dates scheduled for interviews, and in one case two interviews had to be conducted on the same day. I did not, however, feel that my recollection of any interview was significantly distorted by having conducted a subsequent interview before listening to the recording of the earlier one.

The complete transcripts of the LSAs' individual interviews (without the columns of analysis which were added after checking) were sent as email attachments to the participants who checked them for accuracy, satisfying themselves that their words had not been materially misrepresented. A small change to one transcript was requested and made. This was not a detailed check against the audio-recording, which explains why later on reviewing the recordings I was able to detect and correct some small inaccuracies myself.

8.1.7. Analysis of LSA interviews

I created two columns to the right of the transcription script, the first containing an initial analysis, colour coded to distinguish four categories of comment: simple paraphrase, general interpretation and reflection, specific interpretation of choice of language and expression and finally comments on my own interviewing technique and its possible effect on the interviewee's responses. The rightmost column was then used for emerging themes, as recommended by Smith et al. (ibid). Remarks made by LSAs either during, or while pausing, the second and third viewings of the video clips were entered as boxed text on the musical transcriptions of the clips.

I listened a second time to the recordings and made a few very small corrections. I then grouped the themes emerging from each individual LSA under super-ordinate themes, illustrating each theme with one or more quotations. Themes from all interviews were then tabulated so as to reveal the extent of common ground between LSAs whilst preserving the themes peculiar to only one or a few LSAs. Interpretative Phenomenological Analysis does

not, like Grounded Theory, require all data to be incorporated into superordinate themes shared by the whole group or else jettisoned. This table of themes was then used as the basis for the analysis in section 8.2.2.

8.2. LSA interviews – Results

The full data from all seven interviews are presented in appendices as follows: full transcripts of interviews showing the tabulation stage of Interpretative Phenomenological Analysis (8.1.7.) are in Appendix 7a/1-6, reports on individual interviews illustrating the main themes are in Appendix 7b/1-6 and the meta-analytic chart bringing these themes together from all seven interviews is in Appendix 7c. Comments made at specific points during the clips are added to musical transcriptions at Appendix 7d/1-6. An earlier analysis of the content of the interviews by categories of information, rather than by theme, forms Appendix 7e.

Before discussing individual interviews, I shall mention some general tendencies common to most or all interviews. The LSAs will be referred to by the number of the clip in which they appear. The original clip 6 was omitted from the music therapist interviews after the pilot study stage and renumbered clip 6a. The original clip 7 now became clip 6.

8.2.1. General observations

The seven LSAs were interviewed at their workplaces on separate occasions. Each LSA viewed and responded to a video clip of her interaction with a student in music therapy. All the LSAs showed, in their interviews, a commitment to the students' welfare and best interests, a good understanding of individual needs and the needs shared by the client group, and keen powers of observation. These qualities had already been evident from their work with me as music therapy assistants.

No LSA had difficulty in describing either the student's behaviour or her own, but comments on specifically musical behaviour tended to be simple and factual rather than addressing its expressiveness and possible meaning. This may have been due partly to lack of familiarity with musical and aesthetic terminology, partly to prioritizing the intention and meaning of observable actions rather than musical subtleties which may not have been considered relevant. Thus although LSAs attributed to students feelings and intentions, such as happiness, pride or an intention to tease, they did not usually evidence these by reference to the students' music, and seldom attributed student responses to characteristics of my improvised music. Music was spoken of in mundane terms as loud, soft, fast, slow,

repeating or varying, rather than as expressing or reflecting feelings or intentions.

Interestingly, however, musical *interactions* were sometimes described as communication.

In speaking about the students, all the LSAs readily moved on, without prompting, from the discussion of what could be observed to suggestions of likely underlying mental processes, drawing on their knowledge of the students' character traits. The students' mental processes were expressed, and often given voice on their behalf, in terms equally appropriate for people without a learning disability. This seemed to indicate an awareness of the rich mental life of the students, but occasionally included improbably sophisticated attributions of intentionality and reasoning. When LSAs spoke of their own mental processes it was most often to explain the intentions of their behaviours towards the students and the general principles behind them, but several also mentioned their feeling reactions to how a student behaved or had progressed. LSAs did not always distinguish between feelings recalled from the time the clip was made and feelings evoked in the present by watching the clip.

LSA 1 provided an insight into her motivation for becoming an LSA and the varied roles she had fulfilled in school prior to her present one but similar background information was however not sought from the other LSAs because I felt it could distract from their focus on the video clips and also had consumed too much of the available time.

8.2.2. Five themes

Despite having watched strongly contrasting video clips, the seven LSAs showed a broad consensus on five major themes. Individual differences of emphasis between LSAs' views will be apparent from the consideration of each clip separately in Chapter 10.

8.2.2.1. The students have a right to self-determination and self expression

All the LSAs showed an empathic and respectful attitude towards the students both in their interviews and on the clips. Whilst they tended to speak at times of the students' musical and other behaviours in terms familiar from an educational context, such as 'work', 'motivation', 'attention', 'achievement' and 'independence', they all seemed well aware that music therapy is different from education, and attached great importance to the students' right to self-expression and self-determination. To this end, they saw their own role as supporting and facilitating what the students wanted to do and discovering and evoking what they were capable of doing. Much emphasis was placed on providing only the level of help actually needed and allowing the students to retain control. The students' enjoyment and fulfilment were seen as paramount.

LSA 1 spoke of allowing students to “*do their own thing*” and explained that, despite appearances to the contrary, her student “*was actually doing all the movements*”. LSA 3 said it was nice for her student “*to be able to express himself through me*” and imagined him thinking “*I can do this! ... I don’t need anybody else*”. Rather than interfere too much she “*just let him get on with it*”. LSA 4 had a student with a profound physical disability and commented that it was “*hard to sit there and just to wait to let him do it*” but that he should be allowed to do it himself because this was “*an added bonus*”. LSA 5, despite a wish to discover her student’s understanding of and motivation for imitation, explained that it was “*not that I’m saying ‘Zeb right you must do this now’*”. LSA 7 said “*the whole idea is to encourage students to be as independent as they possibly can*” and stressed that it was important “*to know when she’s saying ‘I’ve finished’ that she’s not being naughty*”.

8.2.2.2. Students’ pleasure and pride in success gives the LSA pleasure

LSA 1 deduced that her student was enjoying playing with assistance because “*she was sort of looking at me*” and “*if she didn’t want to do it she wouldn’t hold the stick*”. LSA 2 felt her student was “*probably very pleased with herself, what she’s doing*” and tried to encourage this by “*smiling at her and...sort of nodding toward her and...you know sort of trying to give her that encouragement*”. LSA 3 said her student “*just seemed to really come out of himself*” and felt that he “*arose, blossomed, you know*” in “*his moment of glory*”. LSA 4 thought her student was enjoying playing with assistance and also enjoying the playing of others because of “*the reactions on his face, the smiles*”. LSA 5 felt both she and her student equally liked to see the other enjoying her/himself: “*he could probably see that I was enjoying it too, and he does, he does feed off of that, Zeb, you know, if you’re enjoying it he gets quite... you know, he enjoys it even more*”. LSA 6a spoke of her student wanting his achievement to be recognised: “*he was also looking around to see if people were actually watching him...as if to say, ‘Look, I’ve done it!’*”. LSA 6 thought her student “*felt really... proud, happy with herself*” and she herself was “*just sitting there thinking ‘you’ve done really well girl’*”.

8.2.2.3. Turn-taking, imitation, non-verbal communication and understanding

LSA 2 noted that her student “*was giving good eye contact, she’s initiating that interaction with me*” and LSA 3 imagined her student saying “*I want you to join in with me*”. LSA 5, who “*tried to see whether he would actually copy me*” also wondered if “*maybe he was waiting to see if I would actually copy him*”. LSA 6a said “*it’s what Hamid wanted, to interact, you know*” and felt the quality of the interaction between the student and herself indicated a deep mutual understanding: “*you can see just how much we did know one*

another...and what we were thinking...you know, and feeling ...". LSA 1 and LSA 4 had worked with students who required continuous physical support to play and did not describe this in terms of interaction. The subtle support with which LSA 7 encouraged her student whilst preserving her independence was also not spoken of as interaction.

8.2.2.4. The influence of the therapist's music upon the students

Although the LSAs sometimes said they helped students to be aware of my music and join in or respond to it, only one ever spoke of responding to it herself, or being influenced by it in any way. Thus LSA 1, although her student turned towards the keyboard music, felt that for herself the music was merely *"in the background, it's part of that"*. LSA 3 felt the music not only attracted the student's attention but triggered his interaction with her: *"he actually tuned in to you and that is when he got hold of my hand and started with the clapping"*. He actively invited the therapist into the turn-taking: *"he's waiting for your reaction to start, and you come in, and every time I clap he looks round to you as if to say 'well it's your turn' "* and enjoyed parallel playing: *"he's getting faster ... as though he's going with you"*, in which it was hard to identify leader and follower: *"Some of it I think he's going with you, and other times I think you're waiting for Cameron and you're going with him"*. At no point, however, did LSA 3 suggest that the keyboard music had guided or supported her own interaction with the student. LSA 4 also saw the keyboard as helping to start the student's assisted playing, because *"sometimes they're waiting for someone else to start"* and as providing a rhythmic framework: *"it keeps the beat, it gives them something to react to"* but did not see it as supporting or guiding her own contribution. LSA 5 said her student noticed the keyboard *"mimicking what we were doing with the beats ...Zeb obviously can hear that"* but later spoke of the keyboard as *"just following us"*. LSA 6a felt the keyboard music was intended *"to see if they was (sic) actually listening to a beat"* and to *"stimulate their... senses"*. LSA 6 was the only one to say that the music had influenced her as well as her student: *"she was responding to the music the same as I was, we're quite, you know, swaying [sways] and ... I think subconsciously ... the music that you was hearing on the keyboard, it was that kind of rhythm and you'd... [sways]"*.

8.2.2.5. Positive evaluation of music therapy and of the LSA interviews

Several LSAs made positive evaluations of music therapy. There was general agreement that the students enjoyed music therapy as a whole, and some LSAs spoke of students making progress, contrasting present with past, music therapy with other contexts, and in one case the end with the beginning of the clip. Other activities that had featured in sessions were also mentioned, and the absence of specific references to TSII suggested it

had become a familiar ingredient of therapy and well integrated into the whole. LSAs found seeing the clips interesting and informative, and suggested that reviewing video could be a valuable way to improve their skills, through reflection on their own contribution and sharing of best practice.

8.3. LSA interviews – Discussion

8.3.1. The suitability of the LSAs

In planning ‘College Link’, schools appear to have taken great care to select only LSAs well equipped to take sole responsibility for vulnerable and sometimes challenging students for the day in college. These LSAs were able to make good use of the considerable autonomy allowed by my “light touch” guidance and increasing use of TSII, which would not have been the case if LSAs had shown excessive anxiety or controlling behaviour towards the students. One LSA prone to such unhelpful traits did start music therapy but was transferred at my suggestion to a supporting role in a different, more structured and familiar activity.

The views and attitudes to the students and their needs, which the LSAs revealed in their interviews, were strikingly homogenous, considering the individual differences between students and between LSAs. I had provided training in acting as a music therapy assistant, but only some LSAs had received it, and it would be unlikely to have had much impact, had it not been perceived as broadly in line with what they already believed and with the philosophy of the schools which employed them. These LSAs seemed to me well equipped to develop the skills of a music therapy assistant, including the autonomous use of interactional skills with non-directive guidance from improvised music in TSII.

8.3.2. The importance of LSAs’ attachment style

The development of the LSAs’ skills occurred in response to the total experience of all that had occurred in music therapy sessions, both musically and also socially, through the relationships in the room. These may be understood through the lens of attachment theory. Stern’s (1998) concept of representation and enactment focuses attention on the formative relationship in which an infant and a mother accumulate a store of implicit knowledge throughout the history of their relationship, which they unconsciously draw on as they relate to each other in the present moment. Wallin (2007, 2013) explains the concept of attachment style, a way of viewing a person’s management of significant relationships of all kinds at any age, which has its roots in infancy but continues to guide a person throughout life. George, Kaplan and Main created in 1984 a protocol entitled the Adult

Attachment Interview (Main, n.d.) from which attachment style could be assessed by investigating how well the adult has made sense of, and come to terms with, attachment experiences in early life. Comparing new parents' attachment style with that of their children years later shows a striking correlation, known as intergenerational transmission.

Like the influence of a parent's attachment style on the quality of attachment developed by the infant, the attachment style of a therapist influences the quality of attachment that can develop in the therapist-client relationship (Wallin, *ibid.*) The triadic relationship in TSII, as described in the present study, forms a complex field in which one might expect to find such influences at work, not only between the LSA and the student but also between the therapist and the LSA. The attachment style of the student's current interaction partner, the LSA, influences the quality of attachment the student develops with her, but in addition the attachment style of the music therapist also plays a role in shaping the relationship the LSA forms with the therapist, which in turn influences her relationship with the student.

It would overstate the case to suggest that the music therapist, who is not the LSA's therapist, will have a significant permanent influence on the LSA's attachment style. However, attachment style is more a range or a repertoire of styles than a fixed entity (Wallin, *ibid.*), and different parts of that range may be evoked by different relationships and situations. Thus Stern (1998, p. 13) includes, in his diagrammatic representation of the triad of mother, baby and psychotherapist, two potentially different versions of the mother's representation of her relationship with the baby. The second of these, which Stern labels M_{rep}^2 , is the way she views that relationship when the therapist is present. It is of course not the mere fact of his presence, but the quality of that presence and his interventions which determine how M_{rep}^2 differs from M_{rep}^1 , the mother's view of the relationship when the therapist is not present. This exposition by Stern of the situation in mother-infant psychotherapy clarified my understanding of the situation in TSII and led to the diagrams in the theoretical model (Appendix 2).

8.3.3. The therapist's attachment style

Anything I might say about the attachment status of a student or an LSA would be purely conjectural, but I can speak with more authority about myself. From my knowledge of my own formative experiences and attachment style I am able to detect an attachment-related motivation for the way I developed TSII. Specifically, I was conscious of a need to protect LSAs' view of themselves as good carers (mothers). Whilst personal needs of the therapist should not override his clinical judgment of the needs of the client, it did prove clinically helpful to act in ways which increased assistants' self-esteem. When interviewed, the LSAs

presented as relaxed, confident and caring as they shared their perception of the students, the music therapy and their own role.

8.3.4. The ontological ambiguity of the LSA's position

In some ways, when student-LSA interactions were being supported in TSII, the LSA was also, albeit temporarily, a client, in the sense that I attempted to address her needs and potential difficulties simultaneously with those of the student. However, the needs and difficulties addressed were only those which could impact upon the LSA's ability to interact with the student in the present moment, and I was careful not to stray outside this boundary. This type of support was probably only effective because the LSAs were unconscious of being the subject of clinical consideration (just as they were unaware of being influenced by the music). For them, the whole therapeutic process was entirely directed at the student. They considered their role simply as assistants in the students' music therapy, and did not therefore perceive their position as ambiguous. This is reminiscent of how a parent-infant psychotherapist (Stern 1998) or indeed a parent-infant music therapist (Oldfield and Flower, 2008) seeks to empower the parent and reinforce her conscious focus on the child's needs, even when subtly working to overcome problems located primarily within the parent.

8.3.5. Developing an assistant's musical understanding

If a music therapy assistant should lack understanding of the musical developmental level of the client, it is possible over time to evoke more musically appropriate behaviour by means of a consistent use of TSII with very little verbal explanation or directive guidance. This observation is based on recent experience, unrelated to the clinical work in this study, of working with a young profoundly brain-damaged adult and his carer. The client is unwilling to play independently, although he sometimes tolerates physical assistance to play. The carer has rather limited understanding of English and seems impervious to verbal suggestions during the session of how best to engage musically with the client, tending to play long stretches of music which is both complex and perseverative. By engaging with this assistant's music almost as though he were a client playing in that manner, however, I have been able to elicit from him music which is simpler, more responsive and more interesting to the client.

8.4. LSA interviews – Limitations

8.4.1. The representativeness of the video clips

One of the three schools approached failed to distribute the recruitment packs (8.1.2.) with the result that the LSAs from that school could not be included. This was regrettable for two reasons. First, the clips featuring those LSAs showed some challenging teenage clients with high levels of anxiety and resistiveness, including one blind client. Secondly, this school started music therapy a year later than the others, so that the video clips available for this study showed their first year of therapy, when LSAs tended to be more anxious and sometimes resistant to TSII. The remaining selection of clips provided insufficient coverage of TSII with challenging clients and of TSII when LSAs were still coming to terms with the approach. The reason for making a purposive selection of clips (6.3.1.) had been in order to illustrate TSII effectively achieving its aims, and these aims included the development of interaction when clients are least able and willing to interact and also when assistants find interaction difficult. The full potential of TSII was thus not illustrated, and only the views of LSAs already fully at home with TSII were obtained.

8.4.2. Deviation from protocol by some LSAs.

In the second and subsequent interviews, I had suggested to LSAs that at the third viewing of the clip they should stop the tape to pinpoint moments during the clip to which their comments referred. Some LSAs however found it easier to let the video run during the third viewing and comment as a voice-over, rather than stopping it to make their comments, and I judged it inadvisable to insist. This meant, first, that some of the comments in boxed text may not be accurately positioned relative to the moment on the video clip which evoked them, and secondly that commenting during the clips may have reduced LSAs' attention to detail during the immediately following passages.

8.4.3. Combining the roles of therapist and interviewer of the LSAs.

Section 6.4.3. discusses the danger of a “demand effect” in interviews and the steps I took to minimise it. This problem could have been further reduced by using a different interviewer, but the LSAs would still have been aware that the therapist whose work they were implicitly judging would, as researcher, have access to their responses. I would know the authorship of individual responses because each LSA commented on a different clip which I could have identified from its sound-track.

8.4.4. The mis-identification of a teacher as ‘Jenny, LSA 2’.

It was discovered after all analyses had been completed that one of assistants I had interviewed believing her to be an LSA was in fact a qualified teacher. I was aware that the third school whose LSAs did not participate in the interviews sometimes assigned a teacher to one of the groups but I was not aware that an assistant who attended another group fairly consistently was in fact a teacher. Data arising from her interview were incorporated in both qualitative and quantitative analyses, discussion and conclusions before the error came to light. As it would be tedious for the reader to qualify every reference to LSAs throughout the thesis, all references to LSA 2 refer to the member of staff who was later discovered to be a teacher and all general references to LSAs where the sense requires it should be understood to include this one teacher.

It should be noted that the headteachers' letters and the LSAs' information sheets and consent forms repeatedly made it clear that the study was intended to involve only learning support assistants. Neither the school nor the individual concerned alerted me at any point to the fact that I had in fact recruited a teacher. That this mistake could escape notice (until revealed by a chance remark by a member of secretarial staff during a phone call on another matter) raises interesting questions about the dynamics of the group in which 'Jenny' assisted. Was she untypical of special needs teachers in the way she was able, in this setting, to blend in with the LSAs? Was the behaviour of the LSAs in the group affected in any way by the presence of a teacher, given that she did blend in so completely? Did the approach adopted in TSII have a 'levelling' effect whereby people who might in an educational context behave in distinct ways related to their institutional status actually behaved very similarly in this therapeutic context? Not being a member of school staff, I know too little of how these staff related outside music therapy to enable me to answer these questions, but one could imagine that in the classroom teamwork would not run efficiently without a degree of hierarchical organisation to reflect the additional responsibilities held by a teacher compared with those of LSAs.

In theory this error has implications for the validity of all observations and conclusions about the role of LSAs in TSII, since one of the seven individuals on which they are based was in reality a teacher. In practice, however, the data provided by this individual do not differ in any significant way from the remainder, which suggests that the conclusions have not been seriously distorted. Furthermore, the fact that the mis-identification was not evident reminds us that characteristics attributed to LSAs in this study should not be seen as uniquely theirs. The role of a teacher who agrees to act as an assistant rather than as a professional co-therapist is similar to that of LSAs in two respects. Both lack the specialist therapeutic and musical education of the music therapist and both, in the special education

setting, may act at times as close physical and emotional supporters of their students. Nevertheless organisational and financial considerations make it much less practical for teachers to be widely used as music therapy assistants, and the general conclusions from this part of the study are intended to apply only to LSAs. It should also be noted that, because of their professional status and training, teachers are well equipped to act as co-therapists, provided there is close liaison with the music therapist over aims and approaches. Had the groups in College Link been staffed by teachers rather than LSAs, TSII would have been a less appropriate way of working with them.

The role of the LSAs within TSII as a systemic process was part of what the independent music therapists considered from the contrasting viewpoint of therapist observers in the next stage of the study, discussed in chapters 9 and 10.

Chapter 9: Stage IIIa – the music therapist interviews

This chapter concerns the interviews in which three independent music therapists viewed the video clips and made continuous responses. I describe the method not only for the music therapists' interviews, but also for the statistical analyses performed on the results, and the process by which an independent assessor checked the data generated. The outcomes of the statistical analyses and of the independent checking process are presented as part of the respective methods.

As regards the findings proper, I present in this chapter only some general characteristics of the therapists' responses to the clips. Presentation of their responses to individual clips is deferred until chapter 10, so that it can there be combined with results of the panel discussion and the LSAs' interviews, clip by clip.

9.1. Music therapist interviews – Method

9.1.1. Musical transcription of clips

I transcribed the clips by ear using Sibelius® software to notate the music. Occasionally the precise voicing of keyboard chords may have been misheard but I believe the general accuracy to be high, and no music therapist remarked on any inaccuracies. Parts for the main participants (student, LSA and myself) were transcribed on full size staves, with parts for other students and LSAs who were present on smaller staves above these. I aligned simultaneous events vertically and barred the score to make my keyboard part (the most complex element) as rhythmically intelligible as possible to the reader. At times this gave the appearance of syncopation and complex rhythms in other participants' parts, which were almost certainly not deliberate. This phenomenon results from prioritising the keyboard part when transcribing by ear, and is not to be confused with what might be called the pseudo-complexity arising when software is used to notate direct transcriptions from MIDI data after the prior choice of key-signature and tempo, with the result that rubato is often represented in very complex note values, as is seen in Wigram (2004) and Lee's (1992) original MIDI printouts of improvisations (pp. 85; 87-88). In the case of the clips in the present study, *rubato* was indicated by using the usual tempo markings such as *poco allargando* and *colla parte*, but discrepancies between students' (and sometimes LSAs') tempi and rhythms and the tempo and metre I had chosen for notating the piano part still led to an appearance of subtle cross rhythms where none could have been intended (see for example the panel discussion of clip 4, Appendix 13e, lines 49-58). Tempo indications were placed at the top of each system, except when no-one except the therapist was making music, when they were placed directly above the keyboard staves.

For the benefit of readers, rather than for the music therapists who were able to watch the video, I added brief descriptions of what can be seen on the video recordings. These were designed to show the relation between musical and behavioural events, but most of the events, e.g. "student reaches for LSA's arm" have durations of several seconds. A finer analysis such as that possible with stop-frame techniques for the microanalysis of client behaviour, for example in Holck (2004; 2007) or Van Colle (2003), was not attempted.

9.1.2. Recruitment for the pilot study

As the pilot study was intended solely to test the methodology for the therapists' task, and the data obtained were not to be included in the findings, random selection of participants was not required. Instead, a convenience sample of three volunteers from a single large

music therapy team was recruited. All had clinical experience of profound learning disability. Appendix 8 shows the email sent to the music therapy team from which this pilot group self-selected, together with the attached letter of invitation, information sheet and consent form. The introduction to the theoretical model, also attached, is presented in Figures 1a-1k. Dates for the individual interviews were agreed by telephone.

9.1.3. Interviews for the pilot study

I interviewed each therapist on a separate day at the team base. I started by checking that the information received was clear, and invited questions at any stage of the interview. Each video clip was shown three times on a lap-top computer with auxiliary speakers, using Powerpoint with embedded video. First it was viewed once to gain an initial impression. I then provided a musical transcription of the clip (with aliases substituted for clients' and assistants' real names) for the music therapists to examine during and after the second and third viewings. There were four dotted lines labelled Scenarios 1 – 4 (6.5.2. and Table 2) above each system. Therapists were asked to fill in sections of the dotted lines for the appropriate scenario(s) in pencil to indicate passages where they felt my improvised music was exerting an influence on either the behaviour (enactment) or the representation of either interacting partner. They could indicate as many or as few scenarios as they wished. The same procedure was repeated for each of the seven clips. The first therapist pointed out that there was no possibility of indicating when the improvised music had challenged rather than supported an enactment or a representation. I therefore gave the second and third therapists an additional orange pencil with which to indicate this. Appendix 18 shows a sample response sheet.

These were not interviews in the usual sense of the word, since the therapists were annotating scores rather than responding verbally. However, questions were asked and answered, I gave supplementary guidance, occasionally amounting to direction, and both I and the therapists made general comments about the clips, the viewing experience and the response method. This made it essential to record and transcribe each meeting in its entirety (Appendices 9/1-3). The transcripts were returned by email for checking.

Viewing and responding to seven video clips a total of three times within the two hour limit set for the interviews left insufficient time for therapists to elaborate verbally on their experiences. They were informed that there would be a chance for extended verbal reflection at the panel meeting. After the interview transcripts were returned to me, I carried out a very simple analysis, adding two columns to the right of the transcript. The

first contained summaries of the main points raised, the second was used to note ways in which the interview protocol might be improved before the main study (Appendices 9/1-3).

9.1.4. Informal review of pilot response method

Before the pilot panel meeting I held an extra meeting with the most senior pilot therapist (Appendix 9d). We discussed the conceptual basis of the task I had set, and I enquired whether therapists might have based their judgments more on the musical scores than on their experience of the video clips, as an inspection of their response sheets occasionally suggested. Although the pilot therapist thought this had not occurred, a possible new response method was discussed for the main study, whereby therapists would use a mechanical device to respond continuously to the clips without being given access to the scores. It was nevertheless decided to continue with the pilot panel meeting in the form originally planned, although the members would be discussing responses they had made using a method different from that to be used in the main study.

9.1.5. Creating a master copy of the clips in random order for the main study

The independent music therapists' task was to watch and respond to the whole series of clips, whereas the LSAs had only watched one clip each. Although repeatedly watching a series of different clips is not a 'repeated measures' task because the scenario to be considered changes between viewings, it could be subject to a variety of 'order effects' (Robson, 2002, p. 130). These include 'practice effects' as greater familiarity with the task leads to easier execution; 'fatigue effects' from both tiredness and habituation which may depress performance; and a 'carry-over' effect if some specific aspect of one task influences the performance of the next. The possibility of a 'carry-over' effect had already arisen when a therapist in the pilot study commented (Appendix 9/1, p. 213) that one clip contrasted with those that preceded it. It seems likely that if a different clip had preceded the clip in question the contrast might have been absent, or different. For the main study, therefore, the order was randomised so that at each viewing of a clip a different clip would have preceded it, and additionally so that each therapist had a different random order. The randomisation procedure was as follows:

- 1) Clips were numbered in the order in which the LSAs' interviews had taken place (which had been an organisational matter with no special significance).
- 2) Clip 6 was excluded (for inadequate recording level) and the original clip 7 was renumbered as clip 6.

3) Stat Trek random number software:

<<http://stattrek.com/statistics/random-number-generator.aspx>freeware>

was used to generate random numbers, by entering the following data into the programme:

- number of random numbers: 6
- minimum value 1
- maximum value 6
- Allow duplicate entries false

4) Five different randomisations of numbers 1 – 6 were generated. Any set in which any clip immediately followed the same clip as it had followed in the previous set was rejected in its entirety. Any set starting with the clip with which the previous set had finished was also rejected (although it proved impossible to complete the process without allowing one exception to this rule).

5) Labelling the sets A B C D and E, the randomised orders were systematically shuffled for the three therapists as follows:

Therapist 1: A B C D E

Therapist 2: B C D E A

Therapist 3: C D E A B

Sequences of clips in the required orders for each therapist were embedded in Powerpoint presentations, with a slide bearing the clip number preceding each clip to enable the therapists to turn to the correct pages of the transcription.

9.1.6. Developing the final continuous response method

The new response method differed in three ways from the original method. First, instead of music therapists watching the video and then indicating their judgments on the musical transcription, they were required to respond continuously (Schubert, 2010, p. 224) whilst watching the video. A response diagram was attached to a rigid board to which a moveable pointer was fixed. The board was positioned immediately beside the computer screen showing the video clip, allowing the therapist to move the pointer whilst watching and listening to the clip. Secondly the four scenarios were assessed one by one instead of simultaneously. All 5 clips were viewed straight through in sequence five times in all, once for a general impression and once to make judgments relating to each scenario. The therapist's pointer movements were video-recorded simultaneously with the sound-track of the video clip. Thirdly the order of scenarios was changed (see Figures 2 and 3) to the order in which therapists would probably consider them if left to their own devices, namely 1: student behaviour, 2: student representation, 3: LSA behaviour, 4: LSA representation.

Before the main study, this method was tested by a colleague, with the sole purpose of assessing its ease of use. It proved entirely practicable, but the frequency with which the therapist placed the pointer on a dividing line on the first draft of the response diagram (Figure 2) suggested that (s)he wished to make finer distinctions than the dial permitted. I therefore designed a final version (Figure 3) for the main study. This had a seven-point scale to reduce the need for borderline judgments, which I expressly banned, and included a neutral mid-point for use when indicating that the music had neither a supportive nor a challenging influence.

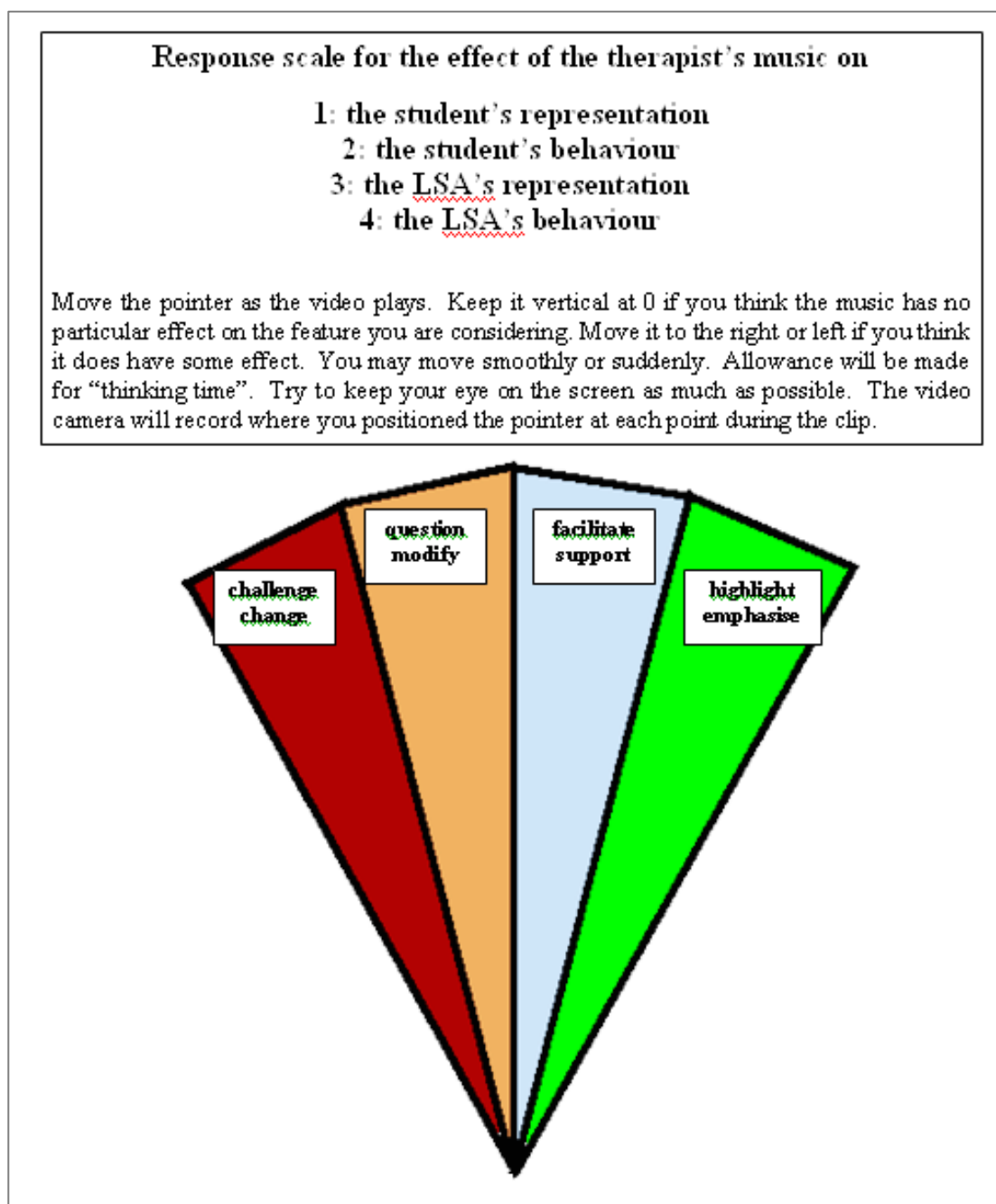


Figure 2: Music therapist's response diagram (supplementary pilot study)

Response scale for the effect of improvised keyboard music on

- | | |
|----------------------------|---------------------------------|
| 1. The student's behaviour | 2. The student's representation |
| 3. The LSA's behaviour | 4. The LSA's representation |

Moving the pointer

0 is neutral

A, B and C are progressively stronger supporting/reinforcing effects

X, Y and Z are progressively stronger modifying/challenging effects

Always keep the pointer within a segment, not on a boundary

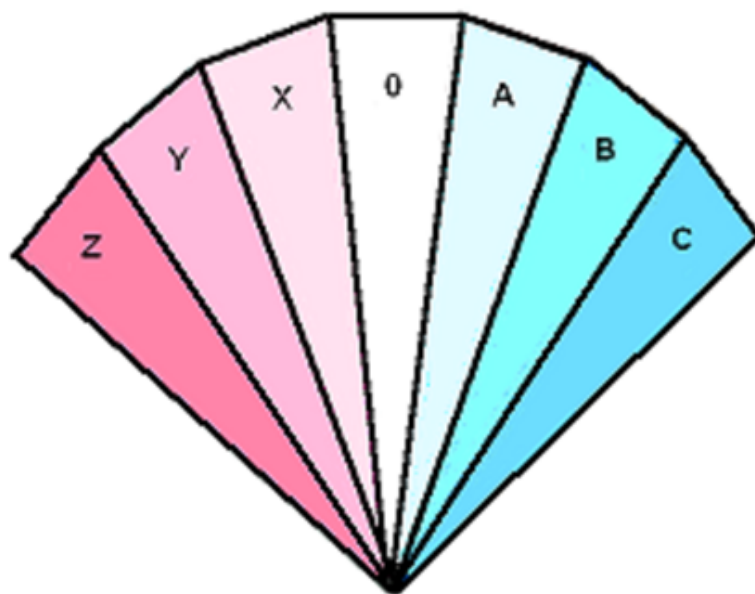


Figure 3: Music therapist's response diagram (main study)

9.1.7. Recruitment for the main study

Music therapists were selected as follows:

- Random number tables were downloaded from <http://stattrek.com/tables/random.aspx>
- Using the 2010-2011 APMT members' directory, names were selected by omitting the number of names given by each random digit. Thus if the first digit was 6, the first name selected was 7th on the list. The digit 0 would result in the selection of consecutive names
- All names without code E (learning disabilities) against them in the register were deleted
- All names in Area Groups other than London, South East, Central South, Eastern and East Midlands were deleted
- Names of anyone who had ever been my colleague, supervisor or supervisee were deleted
- One name was deleted because there was no email address in the directory
- All selected names were emailed simultaneously
- The first 3 to reply were emailed back to inform them they had been selected
- Up to 3 more might be designated "reserves" to replace anyone dropping out
- The remainder were thanked for responding and informed they had not been selected

9.1.8. Main study interviews

The selected therapists were emailed a combined information and consent form, the theoretical model (a simplified version of Figures 1a-k, with the coloured text in upper case on pages 1e, 1g, 1i and 1k presented minus the lower case elaborations), room diagrams for the six clips showing the positions of the participants, the response dial and finally a very short video clip showing how the pointer could be moved on the dial in response to an excerpt from a clip. All these email attachments except the video illustration and the theoretical model are in Appendix 11.

I visited each music therapist at her/his chosen location to conduct the interview. I read a pre-composed script (Appendix 12) which recapitulates the meaning of the concepts of representation and enactment set out at Appendix 1a, and answered any questions. The concepts of support and challenge and of degrees of strength of musical influence are not mentioned in this pre-composed script but therapists are directed to the response chart, Figure 3, where these concepts are explained, and unscripted verbal clarification was given as required (e.g. Appendix 13c, ll. 044-045.)

Our conversations are transcribed at Appendices 13/1-3. The therapists made their judgments on the effect of the music in each clip using the continuous response method

described above (9.1.6. and Figure 3). The movements of the pointer were video recorded as shown in Figure 4.

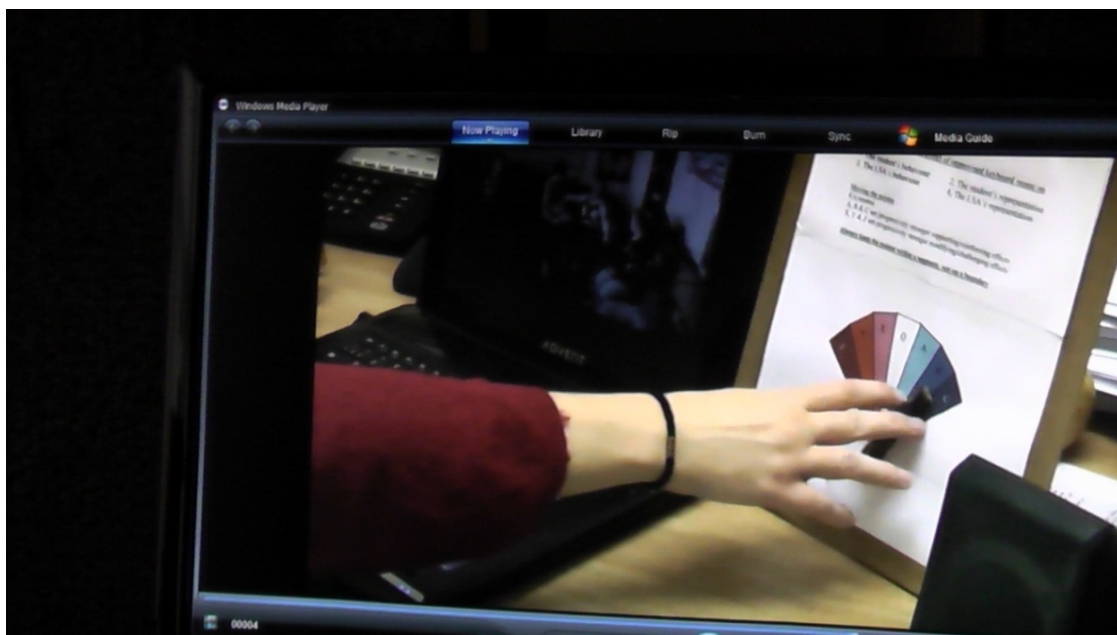


Figure 4: Continuous response method used in the main study

9.1.9. Transcription of pointer movements

Following the interviews, I viewed the video-recordings of the individual therapists' responses in order to transcribe the pointer movements onto individual response sheets as in the example at Figure 5. Four clear strips had been prepared above each system of the transcribed musical score, one for each scenario, ready to be filled in with the colour corresponding to where the pointer was positioned at each point in the music. I paused the video-recording every time the pointer left one segment of the dial for a different one, identified the corresponding point in the score (from the sound-track) and coloured the strip for that scenario, from the previous change up to that point, in the colour of the segment where the pointer had been positioned. The individual response sheets (Appendices 14a-c) were then combined into composite response sheets as shown in Figure 6 to enable responses to be compared in the panel meeting. These complete composite response sheets are incorporated, with additional material, in the Supplement.

Because the colours from the response dial were used to indicate pointer positions, colour could no longer be used to distinguish between the three therapists. Instead the three therapists' responses were grouped together within each scenario (see key to Figure 6). This is explained more fully on page 1 of the Supplement. (The coloured circles on Figure 6 are explained at 10.1.2.)

Scenario

Clip 3, therapist 2

1: SB

2: SR

3: LB

4: LR

K

C

C

Th

Th

Help Kate clap Help Kate clap Help Kate clap We can cl_

huh huh huh huh huh huh huh huh huh huh huh huh huh

drops kabasa delays clap laughs and smiles at therapist

SB

SR

LB

LR

poco piu mosso

rall

co-operates to allow clapping

K

C

C

Th

Th

Speeds up

Takes K's right hand with his left

(spoken)

huh huh huh huh huh huh huh huh huh

ap now

KEY: SB = student behaviour
SR = Student representation
LB = LSA behaviour
LR = LSA representation

Figure 5: Individual response sheet (main study) showing pointer positions

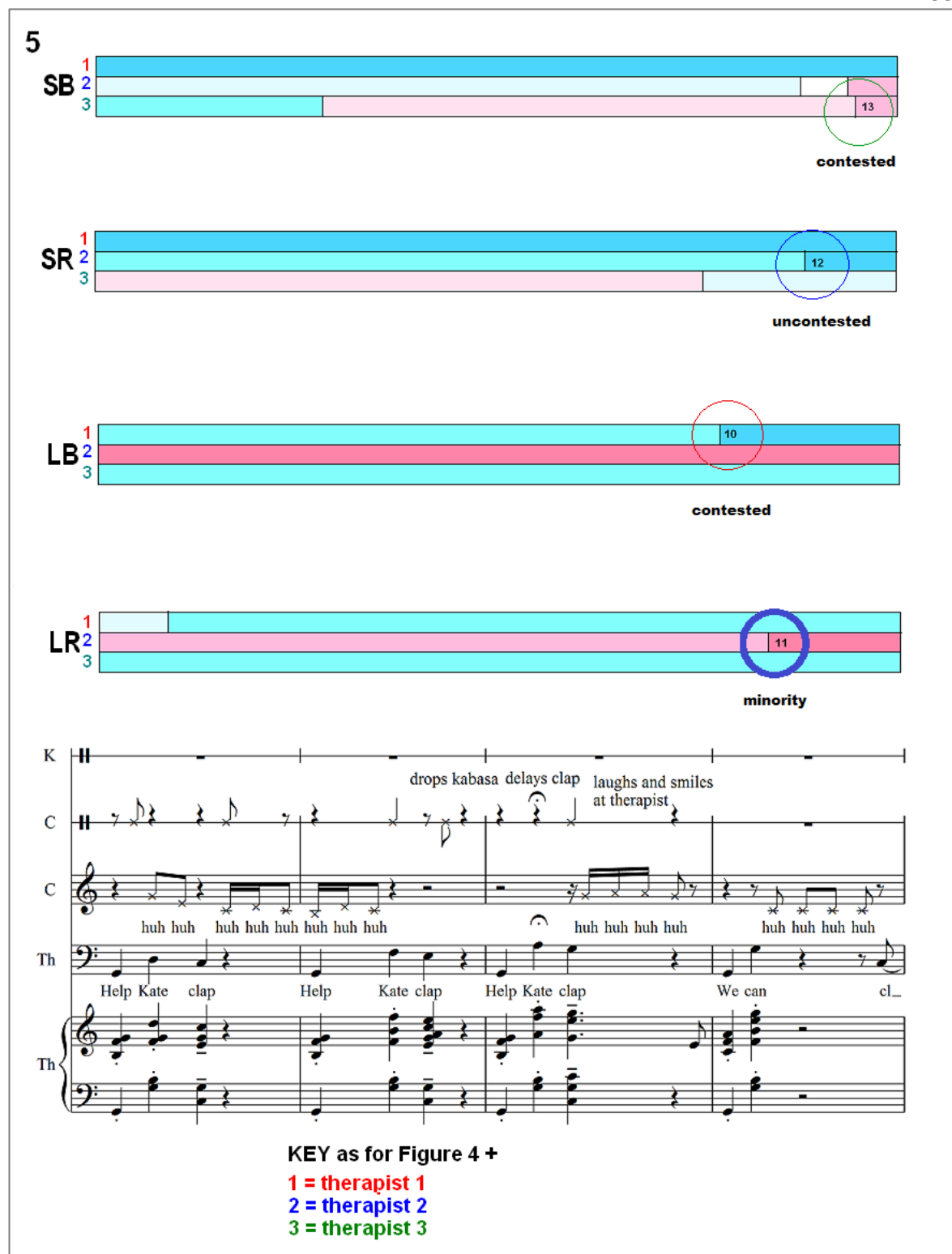


Figure 6: Composite response sheet (main study) showing all therapists' responses

9.1.10. Member-checking of transcripts (main study)

The complete transcripts of the music therapists' individual interviews were sent as email attachments to the participants who checked them for accuracy. This was not a detailed check against the audio-recording. Participants satisfied themselves that their words had not been materially misrepresented and no changes were requested. It was not considered

feasible for the therapists to check the accuracy of the pointer transcriptions, but the method for an independent check of a random sample is described at 9.3.4., 9.3.5. and Appendix 17.

The interview transcriptions were not subject to a full thematic analysis, but comments and questions about the theoretical model and the response method were highlighted (Appendix 13/1-3) and are reported in summary at 9.4.1.

9.2. Music therapist interviews: continuous responses analysis – Method

The therapists' continuous responses are qualitative data, but by being recorded using an ordinal scale they generate a quasi-quantitative record. Statistical analysis had not been included in the protocol submitted for NHS ethical approval, but by conducting it I did not subject any participant to any procedure for which consent had not been given, nor generate additional data of a personal nature. Neither new ethical approval nor new individual consent from the music therapists was therefore necessary.

9.2.1. Calculating inter-rater agreement

When several people evaluate or respond to the same stimulus, it is common practice to assess the extent to which their responses are in agreement. I reasoned that visual inspection of the combined response sheets might well over-emphasise the extent of disagreement between therapists' responses, suggesting, perhaps incorrectly, that agreement was so limited as to be of little interest, or even that the therapists' responses were largely random. It might be possible to reject this null hypothesis by analysing the data to reveal underlying patterns and trends which might not be evident from visual inspection. I therefore calculated the inter-rater agreement between the individual response sheets for clips 1 and 6 in several ways, before deciding which method of analysis to apply to the responses to the remaining clips.

9.2.2. Time-sampling of responses

Before the data recorded on the composite response sheets could be analysed, it had to be subjected to time-sampling. The dial with which therapists responded used a scale labelled Z Y X 0 A B C (Figure 3). These letters had been chosen to emphasise that this was not a ratio scale and that the influence of the music signified by pointer positions either side of the zero point differs in kind, being supportive on the right and challenging on the left. It was therefore not a straightforward ordinal scale, but rather two opposing scales with a common zero. However, the degrees of saturation of blue and pink on the dial, reproduced

on the composite response sheets, indicate degrees of perceived strength of supportive or challenging influence of the music, making it closer to an ordinal than to a nominal scale. To take account of this ordinal relationship between pointer positions the scale was converted to digits according to the key in Figure 7. Retaining zero to signify no influence, the degrees of support became 1, 2 and 3, and the degrees of challenge -1, -2 and -3.

strong support	=	C	=	+3
medium support	=	B	=	+2
light support	=	A	=	+1
neutral	=	0	=	0
light challenge	=	X	=	-1
medium challenge	=	Y	=	-2
strong challenge	=	Z	=	-3

Figure 7: Key for converting letters to digits

After the composite response sheets were marked at five second intervals, using the video counter, as in the example at Figure 8 from clip 1, the colours were converted to digits. This rather coarse time-sampling method sacrificed precise information about when the pointer was moved, but kept the volume of data to manageable proportions and allowed therapists' responses to be coded simultaneously at regular intervals. Some therapists had said they were unsure about the exact timing of their pointer movements, and some pointer movements had been rapidly reconsidered and reversed. The sampling method addresses both problems by "smoothing" the data. The pointer positions were then tabulated (table 13). Clip 1 yielded 32 five second sampling points. The values from the 25, 30, 35 and 40 second time samples shown on Figure 8 appear in the red box on Table 13.

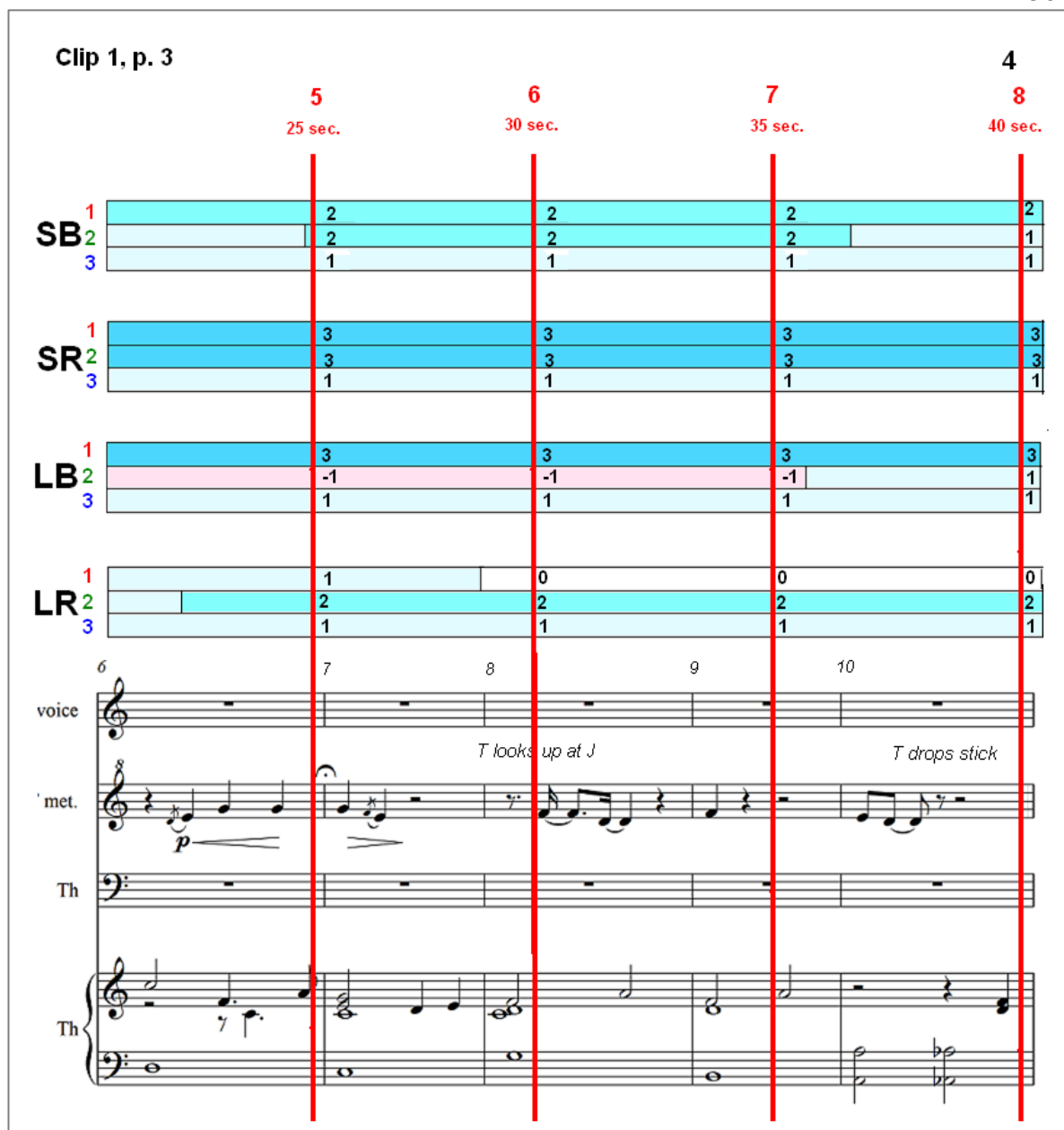


Figure 8: Response sheet sampled at 5 second intervals (Clip 1)

Scenario	1			2			3			4		
Therapist	1	2	3	1	2	3	1	2	3	1	2	3
1	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	3	0	0	-1	0	0	0	0
3	0	1	1	0	3	1	1	-1	0	1	1	1
4	1	1	1	3	3	1	1	-1	1	1	1	1
5	2	1	1	3	3	1	3	-1	1	1	2	1
6	2	2	1	3	3	1	3	-1	1	0	2	1
7	2	2	1	3	3	1	3	1	1	0	2	1
8	2	1	1	3	3	1	3	1	1	1	2	1
9	2	1	-1	3	3	-1	0	-1	1	0	2	2
10	2	1	-1	3	3	-1	0	2	1	0	2	0
11	0	1	-1	0	3	0	0	2	1	0	2	0
12	0	2	-1	0	3	0	0	2	1	0	2	0
13	2	2	-1	0	3	0	1	2	1	0	2	1
14	3	2	1	1	3	1	2	2	1	1	2	1
15	3	2	1	3	3	1	3	-1	1	1	2	2
16	3	2	1	3	3	1	3	-1	1	1	2	2
17	3	2	0	3	3	1	3	-1	1	1	2	1
18	3	2	-1	3	3	1	3	-1	0	1	2	1
19	3	3	-1	3	3	1	3	-1	0	1	2	1
20	3	3	-1	3	3	1	3	-1	0	1	2	1
21	3	3	1	3	3	0	3	-1	1	2	2	1
22	3	3	0	0	3	1	3	-1	1	1	2	1
23	3	2	2	-1	3	2	3	-1	1	1	2	1
24	3	2	2	-1	3	0	3	-1	1	1	2	1
25	3	1	2	2	3	1	0	-1	1	1	-1	1
26	3	1	2	2	3	1	0	-1	2	1	-1	1
27	3	1	2	2	3	1	0	-1	1	1	-1	1
28	3	1	2	2	3	2	0	-1	1	0	0	1
29	3	1	2	2	3	2	0	-1	2	0	0	1
30	3	1	2	3	3	2	3	-1	2	0	0	1
31	3	1	2	3	3	1	3	-1	1	0	0	1
32	3	1	2	3	3	1	3	-1	1	0	0	1

Table 13: Example of coding of pointer positions (Clip 1)

9.2.3. Frequency distribution of responses

Table 13 was then used to create histograms showing the frequency distribution of pointer positions at the sampling points for each therapist, as illustrated in Figure 9. The pointer positions are shown on the x-axis and the frequency with which the pointer was at each position is on the y-axis. In Figure 10 there are twelve similar histograms, one for each column of Table 13. They are grouped from left to right by scenario and from top to bottom by therapist. They show the proportions of time-sampling points at which the pointer was at each position, but not when the pointer was at each position. This sacrifice of information reveals general tendencies more clearly. Comparing rows of histograms gives an impression of the three therapists' scoring patterns. Comparing columns gives an impression of their different responses to the four scenarios.

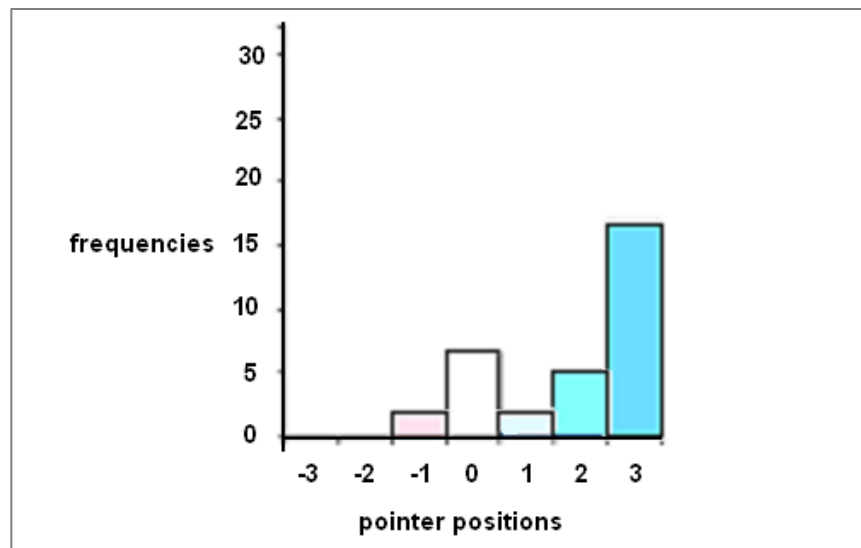


Figure 9: Example of frequency distribution of use of each pointer position

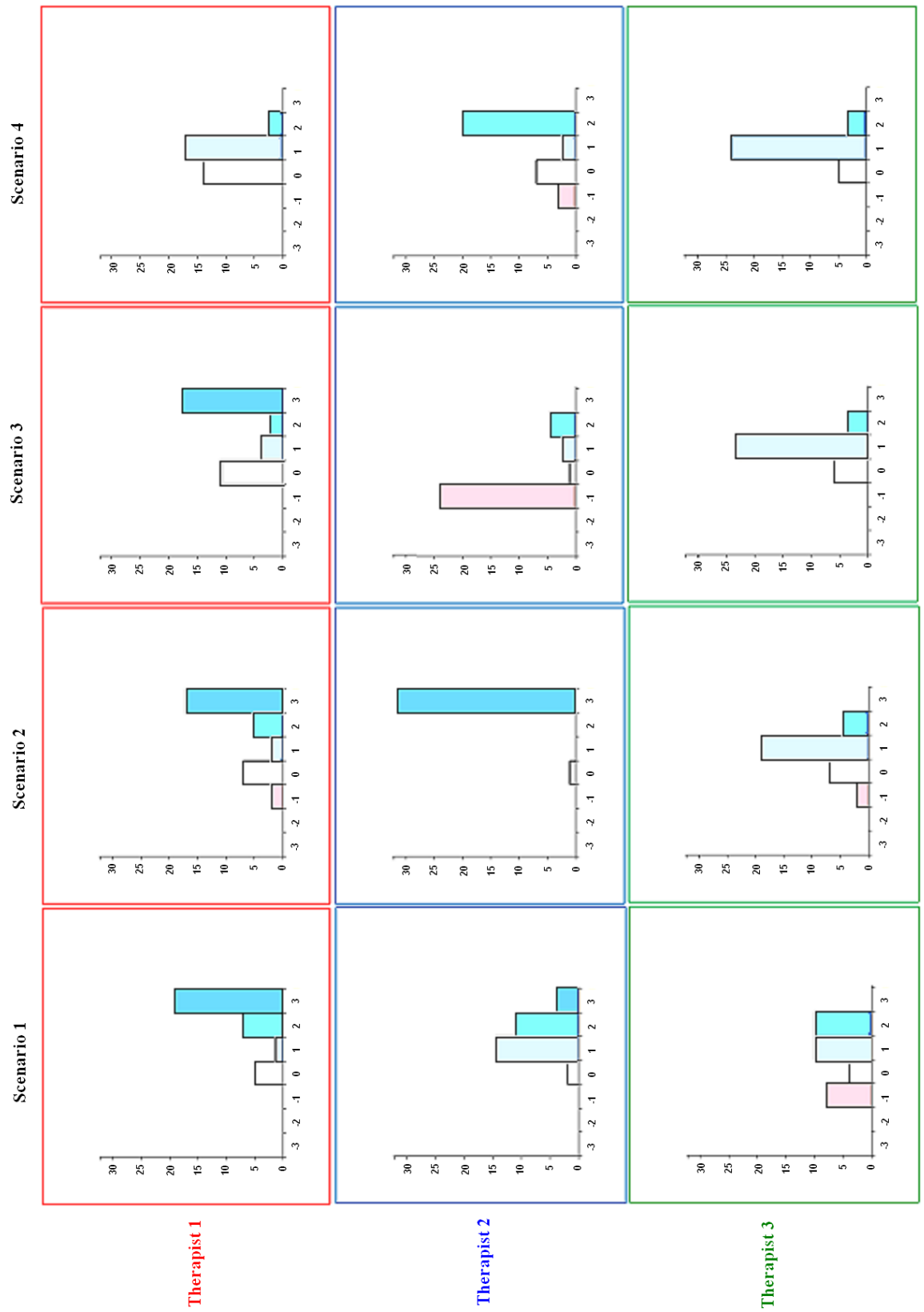


Figure 10: Frequency distribution of pointer positions for clip 1,
by therapist and by scenario

9.2.4. Inter-rater agreement

Inter-rater agreement cannot be assessed from frequency data but requires comparison of the three therapists' scores at each sampling point. The simplest measure of variability of three scores is the sum of the absolute difference between each pair of scores, which conveniently always equals twice the difference between the extreme scores. With this seven point scale variability can in theory take values from 0 (total agreement on any value) through 2, 4, 6, 8, 10 to 12 (the maximum variability, when there are scores of -3, +3 and any other.) Values for variability are shown in the black columns in table 14, calculated from the coloured columns in Table 13.

Scenario	1			2			3			4		
Therapist	1	2	3	1	2	3	1	2	3	1	2	3
1	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	3	0	6	-1	0	2	0	0
3	0	1	1	2	0	3	6	1	-1	0	4	1
4	1	1	1	0	3	3	4	1	-1	1	4	1
5	2	2	1	2	3	3	4	3	-1	1	8	1
6	2	2	1	2	3	3	4	3	-1	1	8	0
7	2	2	1	2	3	3	4	3	-1	1	8	0
8	2	1	1	2	3	3	4	3	1	1	4	0
9	2	1	-1	6	3	3	-1	8	0	-1	1	4
10	2	1	-1	6	3	3	-1	8	0	2	1	4
11	0	1	-1	4	0	3	0	6	0	2	1	4
12	0	2	-1	6	0	3	0	6	0	2	1	4
13	2	2	1	2	0	3	1	6	1	2	1	2
14	3	2	1	4	1	3	1	4	2	2	1	2
15	3	2	1	4	3	3	1	4	3	-1	1	8
16	3	2	1	4	3	3	1	4	3	-1	1	8
17	3	2	-1	8	3	3	1	4	3	-1	1	8
18	3	2	-1	8	3	3	1	4	3	-1	0	8
19	3	3	-1	8	3	3	1	4	3	-1	0	8
20	3	3	-1	8	3	3	0	6	3	-1	0	8
21	3	3	1	4	3	3	0	6	3	-1	1	8
22	3	3	1	4	0	3	0	6	3	-1	1	8
23	3	2	2	2	-1	3	2	8	3	-1	1	8
24	3	2	2	2	2	3	1	4	3	-1	1	8
25	3	1	2	4	2	3	1	4	3	-1	1	8
26	3	1	2	4	2	3	1	4	3	-1	2	8
27	3	1	2	4	2	3	1	4	3	-1	1	8
28	3	1	2	4	2	3	2	2	3	-1	1	8
29	3	1	2	4	2	3	2	2	3	-1	2	8
30	3	1	2	4	3	3	2	2	3	-1	2	8
31	3	1	2	4	3	3	0	6	3	-1	1	8
32	3	1	2	4	3	3	1	4	3	-1	1	8

Table 14: Inter-rater variability of pointer positions (black columns) clip 1

If individual therapists' scores had been unrelated and random, the probable frequencies of possible degrees of variability can be calculated. These would have been distributed as in Figure 11. However, because the therapists tended to keep the pointer nearer zero than the extremes, the distribution was likely to be skewed towards the left. Figure 12 shows the actual distribution of variability scores for each scenario, with Figure 11 superimposed for comparison.

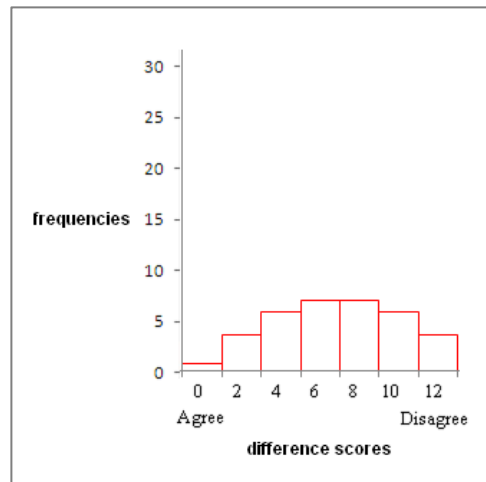


Figure 11: Theoretical distribution of unrelated, randomly distributed variability scores

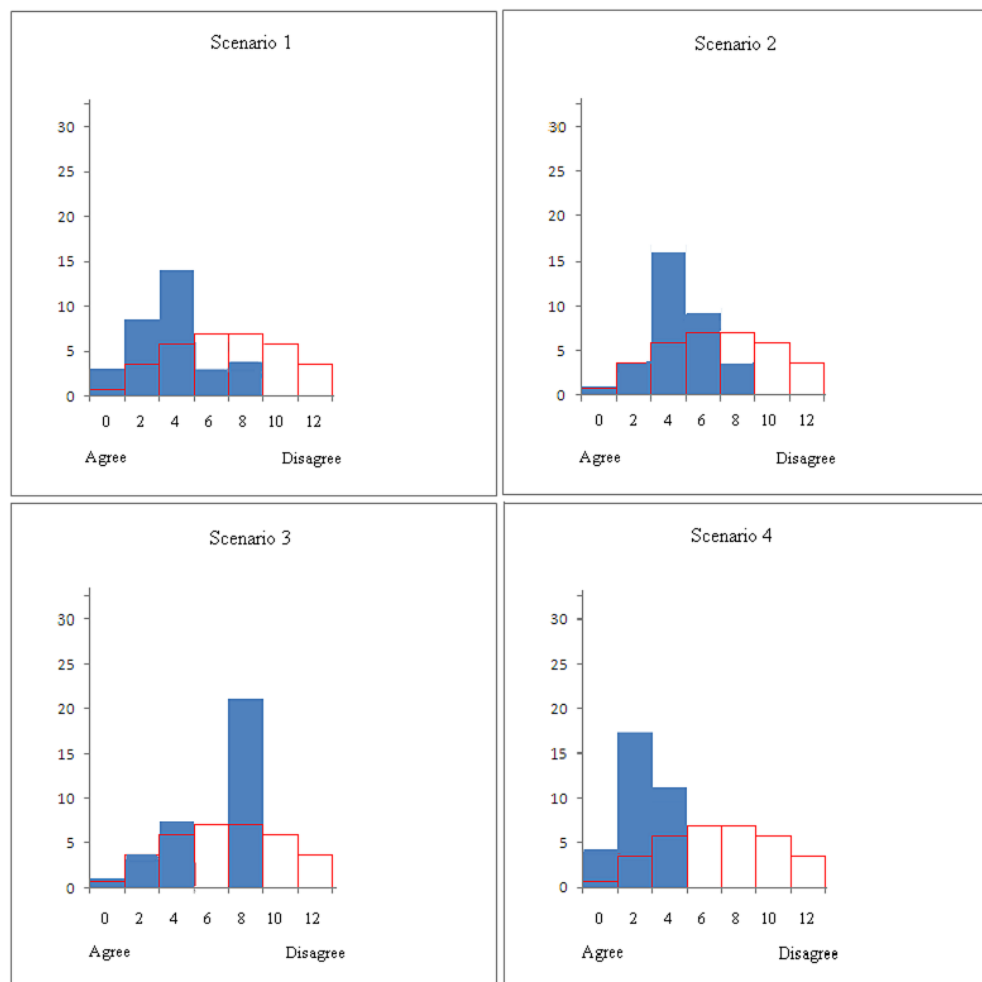


Figure 12: Actual distribution of variability scores for pointer positions in clip 1

In Figure 12, visual inspection suggests that for scenarios 1,2 and 4 there is greater than chance agreement. Scenario 3 has a bipolar distribution which is hard to interpret. These charts variability at each time-sampling point but what have been time-sampled are continuous judgments of an ongoing process, in which every moment is experienced in the

light of what has gone before, rather than judgments of de-contextualised moments.

Pointer movements may tell us more than pointer positions.

9.2.5. 'Differencing' to show changes of pointer position

I decided that a more realistic measure of inter-rater agreement might be obtained by considering the direction and size of *changes* of pointer position instead of absolute pointer positions, because this gives a sense of how the pointer was moved instead of merely where it was placed. The music therapists' continuous decisions about whether to leave the pointer in place or to move it, and if so in which direction and by how much, can be represented by the differences between each position and the previous one. These may be found by subtracting each value in Table 13 from its predecessor, producing Table 15.

Scenario	1			2			3			4		
Therapist	1	2	3	1	2	3	1	2	3	1	2	3
1												
2	0	0	0	0	3	0	0	-1	0	0	0	0
3	0	1	1	0	0	1	1	0	0	1	1	1
4	1	0	0	3	0	0	0	0	1	0	0	0
5	1	1	0	0	0	0	2	0	0	0	1	0
6	0	0	0	0	0	0	0	0	0	-1	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0
8	0	-1	0	0	0	0	0	2	0	0	0	0
9	0	0	-2	0	0	-2	-3	-2	0	0	0	1
10	0	0	0	0	0	0	0	3	0	0	0	-1
11	-2	0	0	-3	0	1	0	0	0	0	0	0
12	0	1	0	0	0	0	0	0	0	0	0	0
13	2	0	2	0	0	1	1	0	0	0	0	0
14	1	0	0	1	0	0	1	0	0	1	0	0
15	0	0	0	2	0	0	1	-3	0	0	0	1
16	0	0	0	0	0	0	0	0	0	0	0	0
17	0	0	-2	0	0	0	0	0	0	0	0	-1
18	0	0	0	0	0	0	0	0	-1	0	0	0
19	0	1	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	-1	0	0	0	0	0	0
21	0	0	2	0	0	0	0	0	1	1	0	0
22	0	0	0	-3	0	0	0	0	0	-1	0	0
23	0	-1	1	-1	0	2	0	0	0	0	0	0
24	0	0	0	3	0	-1	0	0	0	0	-3	0
25	0	-1	0	0	0	0	0	0	0	0	0	0
26	0	0	0	0	0	0	0	0	1	0	0	0
27	0	0	0	0	0	0	0	0	-1	0	1	0
28	0	0	0	0	0	1	0	0	0	-1	0	0
29	0	0	0	0	0	0	0	0	1	1	0	0
30	0	0	0	1	0	0	0	0	0	-1	0	0
31	0	0	0	0	0	-2	0	0	-1	0	0	0
32	0	0	0	0	0	1	0	0	0	0	0	0

Table 15: Changes of pointer positions at 5 second intervals in clip 1

There are now only 31 rows, as the first row of Table 13 has no predecessor. Table 15 is converted to histograms in Figure 13. Possible changes of pointer position range from -6 (moving from +3 to -3) to +6 (moving from -3 to +3) but the changes actually recorded for clip 1 all lay between only -3 and +3, with zero values for change (the central white

columns) recorded most frequently. This was to be expected, first because musical influences are unlikely to have fluctuated constantly, evoking a new response from the watching therapists at each time-sampling point, and secondly because the therapists operating the pointer would be likely to err on the side of caution, not moving the pointer unless they were fairly sure it was necessary, and not moving it far from the centre unless confident to do so – a sort of built in inertia. For every combination of therapist and scenario, no change should be the commonest outcome. This was found to be the case, suggesting that five seconds was a short enough time-sampling interval, since the rate of change in pointer positions was shown to be on average slower than every five seconds, at least in this clip.

9.2.6. Inter-rater agreement on changes

Figure 13 only shows totals for the entire clip, regardless of when each pointer change was made. To calculate inter-rater agreement on the direction and extent of pointer movements we must compare change scores of all therapists at each five second sampling point. There could be greater inter-rater agreement than there was between scores for pointer position (Table 14 and Figure 12) because the three therapists might register a similar direction and size of change in perceived musical influence even if their absolute scores differed. For example $0 \Rightarrow 1$, $2 \Rightarrow 3$ and $-2 \Rightarrow -1$ are all moves of one place up the scale, suggesting that the music has become more supportive or less challenging. The black columns in Table 16 show the variability of each time sample of three change scores calculated from the coloured columns of Table 15.

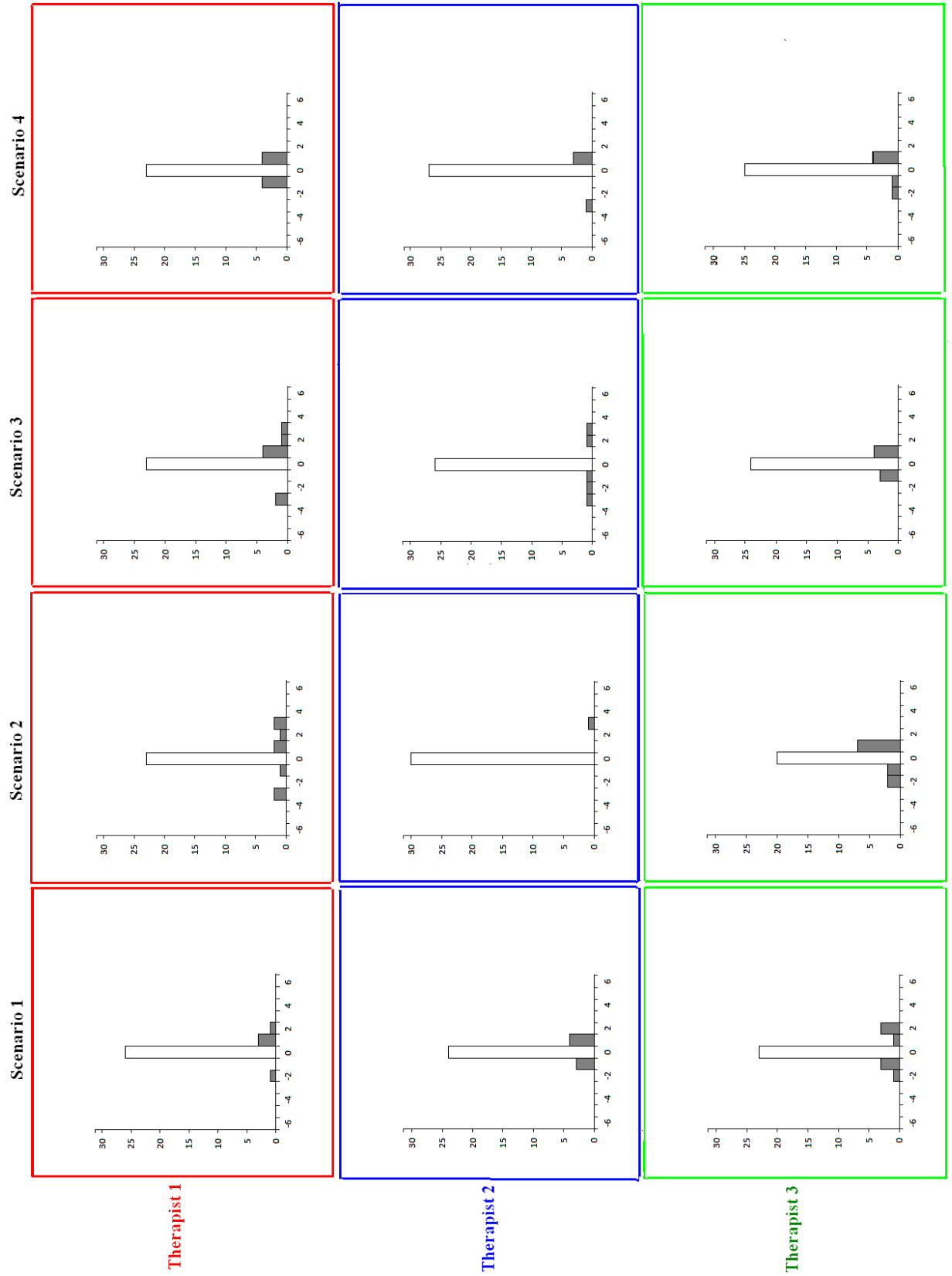


Figure 13: Frequency distribution of changes of pointer position

Scenario	1			2			3			4		
Therapist	1	2	3	1	2	3	1	2	3	1	2	3
2	0	0	0	0	0	3	0	-1	0	2	0	0
3	0	1	1	2	0	0	1	0	0	2	1	1
4	1	0	0	2	3	0	0	0	1	2	0	0
5	1	1	0	2	0	0	0	2	0	4	0	1
6	0	0	0	0	0	0	0	0	0	0	-1	0
7	0	0	0	0	0	0	0	0	0	0	0	0
8	0	-1	0	2	0	0	0	2	0	4	0	0
9	0	0	-2	4	0	0	-2	4	-3	6	0	0
10	0	0	0	0	0	0	0	0	3	6	0	-1
11	-2	0	0	4	-3	0	1	8	0	0	0	0
12	0	1	0	2	0	0	0	0	0	0	0	0
13	2	0	2	4	0	0	1	2	1	2	0	0
14	1	0	0	2	1	0	0	2	1	2	1	0
15	0	0	0	0	2	0	0	4	1	8	0	1
16	0	0	0	0	0	0	0	0	0	0	0	0
17	0	0	-2	4	0	0	0	0	0	0	0	-1
18	0	0	0	0	0	0	0	0	-1	2	0	0
19	0	1	0	2	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	-1	2	0	0	0	0
21	0	0	2	4	0	0	0	0	1	2	1	0
22	0	0	0	0	-3	0	0	6	0	0	-1	0
23	0	-1	1	4	-1	0	2	6	0	0	0	0
24	0	0	0	0	3	0	-1	8	0	0	0	-3
25	0	-1	0	2	0	0	0	0	0	0	0	0
26	0	0	0	0	0	0	0	0	1	2	0	0
27	0	0	0	0	0	0	0	0	-1	2	0	1
28	0	0	0	0	0	1	2	0	0	0	-1	0
29	0	0	0	0	0	0	0	0	1	2	1	0
30	0	0	0	0	1	0	0	2	0	0	-1	0
31	0	0	0	0	0	0	-2	4	0	-1	2	0
32	0	0	0	0	0	1	2	0	0	0	0	0

Table 16: Inter-rater variability of changes of pointer position

The variability (again calculated as twice the difference between extreme values) could in theory take all even numbered values from 0 to 24, since changes of +6 and -6 were possible. In fact the most extreme change scores were +3 and -3, which could yield a variability score of 12, although only if they should happen to coincide. Figure 14 shows the actual distribution of difference scores obtained, with the theoretical distribution for random and unrelated scores superimposed in red. Most of the zero scores for variability result from coinciding scores of no change. Removing all such instances would produce distributions almost identical to Figure 14 but with the tall zero columns removed. There was in fact only one instance of unanimity (zero variability) about a change as opposed to an absence of change, at the point in scenario 4 when all therapists moved their pointers from 0 to 1 near the start of the clip. Moreover, many of the variability scores of 2 occurred when two therapists made no change and a third made a change of magnitude 1. Therefore although the number of scores of 2 is well above chance, especially for scenarios 1 and 3, this does not provide compelling evidence of any tendency to agree on changes, as a preponderance of such low scores was to be expected (9.2.5.). It is of course possible that other clips with greater musical contrasts than of clip 1 might yield such evidence.

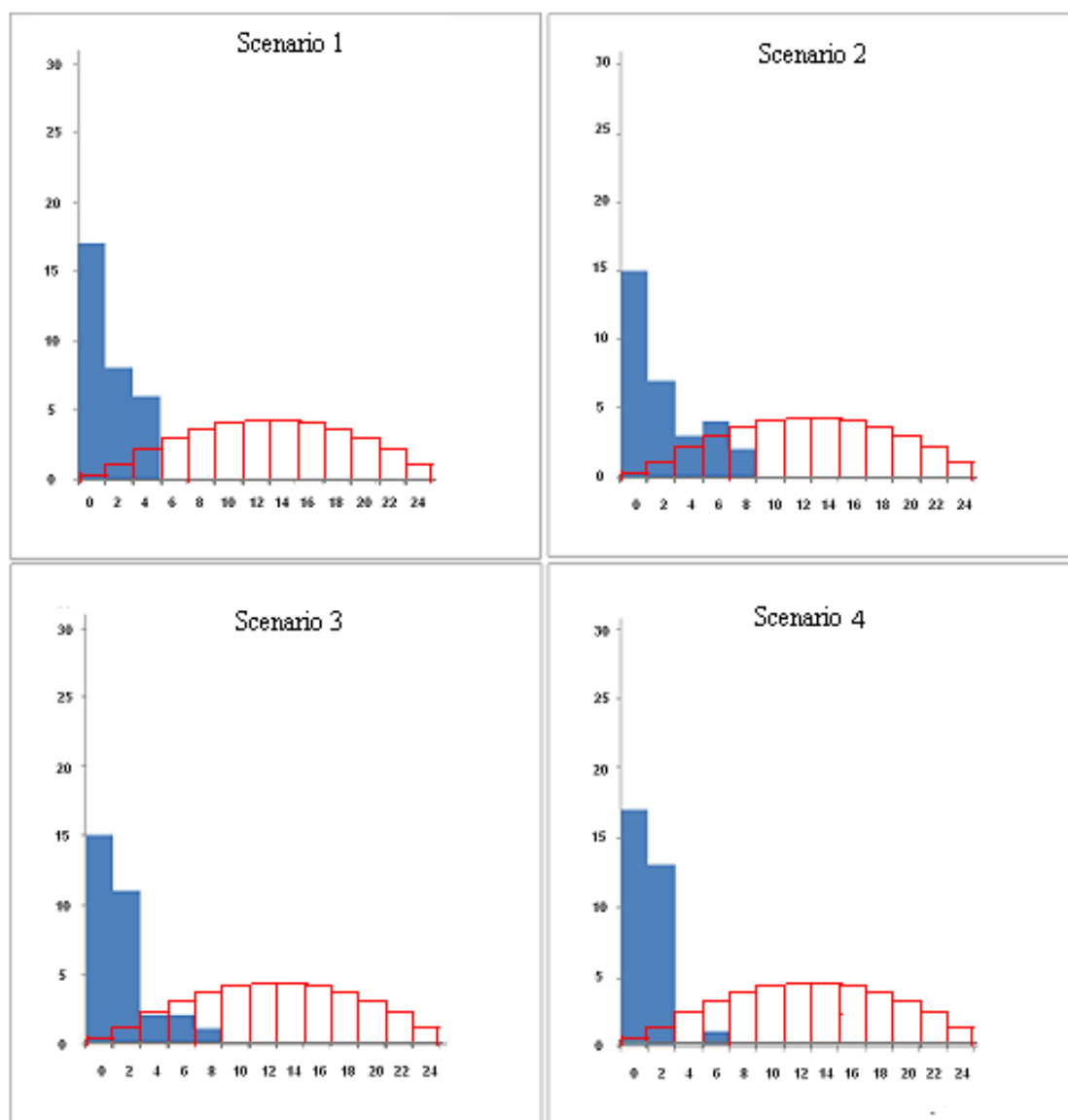


Figure 14: Actual distribution of variability scores for changes of pointer position

9.2.7. Absolute scores

None of the above reveals how much of the disagreement between therapists' judgments might have resulted from including the negative side of the response scale, representing music challenging the status quo. Several comments from therapists suggested that the distinction between support and challenge is ambiguous, and a matter of individual interpretation. Further calculations were therefore carried out using only absolute values, so as to show only the strength, but not the direction, of perceived influence. The difference scores were re-calculated, but inter-rater agreement on changes was again found to be only slightly greater than chance.

9.2.8. Testing a more eventful clip

Clip 1 is untypical because it contains very little variety over a period of nearly three minutes in either the music or what can be observed on screen. This is reflected in the slow rate of change in pointer positions made by the therapists. Visual inspection of response sheets for other clips suggests that they all display greater variety than responses to clip 1, with the therapists making more frequent and often more decisive changes in pointer position. However, when similar calculations were carried out on clip 6, one of the most heterogeneous, it was found that inter-rater agreement was no higher than in the more homogenous clip 1. The additional calculations mentioned in sections 9.2.7. and 9.2.8. may be seen in Appendix 17.

9.2.9. Abandoning the search for inter-rater agreement

Having trialled various analytical procedures on two clips (9.2.4 – 9.2.8. and Appendix 17) and found no significant level of inter-rater agreement, I decided that only histograms like Figure 10, summarising individual therapists' responses, should be presented in the discussion of individual clips in Chapter 10. These histograms sacrifice all temporal information about when judgments were made, but by showing at a glance the range of each therapist's judgments about each scenario they unexpectedly suggest the possibility that intra-rater agreement (within therapists) between scenarios might be present.

9.2.10. Intra-rater agreement between responses to different scenarios

Although inter-rater agreement on all scenarios was too low to reach a consensus view of any clip, there remained the possibility of *intra*-rater agreement between responses to some combinations of scenarios. This was investigated separately for each therapist. I assumed that any tendency to relate judgments on specific pairs of scenarios would be a fairly constant function of how a therapist interpreted the scenarios. I therefore amalgamated each therapist's results from all six clips before comparing her/his responses for all six possible pairings of scenarios. Agreement and disagreement were simply defined as placing the pointer on the same or opposite sides of the dial, ignoring the strength of perceived influences. By multiplying simultaneous values in the columns for a pair of scenarios, a positive product would result whenever the pointer was on the same side of the dial (blue or pink) for both scenarios ($+ \times + \Rightarrow +$; $- \times - \Rightarrow +$) and a negative product when the pointer was on opposite sides. ($+ \times - \Rightarrow -$; $- \times + \Rightarrow -$). A zero product resulted when the pointer registered zero in one or both columns. ($0 \times + \Rightarrow 0$; $0 \times - \Rightarrow 0$). Instances of agreement, disagreement and neither agreement nor disagreement were

totalled and compared with the theoretical values under the null hypothesis that judgments of different scenarios were unrelated. These theoretical ('expected') values were obtained by calculating the total numbers of all possible combinations of positive, negative and zero products by multiplying the frequencies of positive, negative and zero values for each scenario in a pairing, as shown in Figure 15, and dividing by the total number of values. Significant results were obtained using a chi-squared calculation of the difference between actual and expected values, and these will be presented in the results section at 9.4.2.

Value for Scenario X	Value for Scenario Y	Product of values	Grouping likes
Positive	Positive	Positive	Agree
Negative	Negative	Positive	
Zero	Positive	Zero	Neither
Zero	Negative	Zero	
Zero	Zero	Zero	
Positive	Zero	Zero	
Negative	Zero	Zero	
Positive	Negative	Negative	Disagree
Negative	Positive	Negative	

Figure 15: Calculating agreement between judgments on pairs of scenarios

9.3. Music therapist interviews: independent checking of data - Method

The various stages of analysis to be checked were the musical transcriptions, the transcriptions of continuous responses, and the digital conversions.

9.3.1. The accuracy of the musical transcriptions

Neither the pilot panel nor the main panel were specifically asked to comment on the accuracy of the musical transcriptions. However the pilot panel had used the transcriptions to record their judgments immediately after hearing the music, and the main panel were sent the individual and combined response sheets which included the musical transcriptions, with instructions to view the clips and choose decision points in the transcriptions to discuss with the panel. They also viewed the transcriptions again while the clips were replayed during the panel meeting. There was thus ample opportunity to

point out inaccuracies, but no therapist did so. This is however no guarantee of their accuracy, particularly as no therapist noticed the accidental reversal of the LSA's and student's staves for two short sections of clip 5. I therefore decided independent checking would be required (9.3.4.).

9.3.2. Potential sources of error in transcribing pointer movements

The method of transcribing response sheets (9.1.9.) was particularly vulnerable to human error. There might be mistakes in noting from the video recording the exact times of pointer movements, which were sometimes hesitant and never instantaneous, or the wrong colour might be transcribed. Accuracy was important because the response sheets provided the basis for the panel discussion. I therefore decided again that independent checking was required (9.3.5.).

9.3.3. Potential sources of error in creating digital data

There was further scope for error in the down-sampling process (9.2.2., 9.5.3.). Marking out the 5-second intervals using the video counter would probably have been subject to a typical error of up to half a second, but this could occasionally compound a previous error from the transcription of pointer positions, resulting in an error of up to one second. In addition to errors due to perceptual limitations and reaction time, I had discovered a small number of more significant errors apparently caused by inattention during a lengthy and monotonous process of digitising. Independent checking was again required (9.3.6.).

9.3.4. Independent verification of musical transcriptions

A fellow research student was asked by email to provide two sets of random numbers without knowledge of their purpose. For the first set, (s)he selected three numbers between 1 and 9 at random. These numbers determined which of the decision points discussed by the panel should be reviewed by an independent assessor, a highly trained and experienced improviser (not a music therapist). The assessor was given the musical transcriptions and the audio recordings of the music around the selected decision points (Appendix 20). (S)he certified that there were no detectable errors in the transcriptions.

9.3.5. Independent verification of transcription of pointer positions

A science graduate, accustomed to careful observation and reporting, watched the complete video-recordings of the therapists' pointer movements, calling out the numbers corresponding to the pointer positions (Figure 7) each time the pointer was moved, while I

followed a print-out of the musical transcriptions and noted any errors in my transcription of pointer positions. The small number of errors found was then corrected, first in the transcriptions and then in the digital database.

9.3.6. Independent verification of digitising of data

To create a random set of sampling points for independent verification, the same research student (9.3.4.) was given a list showing the total number of 5-second time-sampling points in each clip and asked to select one point per clip. The independent assessor (9.3.4.) then reviewed the points selected, following the instructions in Appendix 16, recording pointer positions on copies of the dial for every scenario and every therapist at the six randomly selected time-sampling points (72 points in all) and then converting the colours on the dial to digits. Finally I compared these digits with the relevant row in the digital database and noted any discrepancies. As well as checking the digitising of data, this served as a further check on the accuracy of my transcription of pointer positions. A small percentage of errors was found and noted, and their sources individually considered (Appendix 16). All resulted from minor errors of timing and not from errors in identifying pointer positions.

9.4. Music therapist interviews – Results

The main purpose of the individual meetings with the three therapists was for them to indicate, by means of the pointer and dial, how they perceived the influence of my improvised music upon the student-LSA interaction, considered in terms of four scenarios (6.6.2. and table 2). Their continuous responses were not discussed at these meetings, as this was to be the subject of the panel meeting. The complete transcriptions of the conversations at the individual meetings are found in Appendices 13a-c. The continuous responses made by the therapists using the pointer are shown in Appendices 14a-c, transcribed as described at 9.1.9. and illustrated in Figures 5 and 6. Composite response sheets showing all therapists' responses simultaneously are in the detachable supplement. Frequency distributions of pointer positions as in Figure 10 are presented with the discussions of individual clips in chapter 10. Here we shall only be concerned with therapists' comments and questions about the task, and with the findings on *intra-rater* agreement between scenarios.

9.4.1. Therapists' comments and questions

The following sections are drawn from the passages highlighted in the interview transcripts in Appendices 13/1-3.

9.4.1.1 Requests for clarification of the task

Improved instructions since the pilot study reduced but did not eliminate requests for clarification. Regarding the use of the pointer and dial, therapist 2 asked how frequently the pointer might be moved (13b:043-045). When judging scenario 3 (musical influence on LSA behaviour) (s)he asked whether all the LSA's behaviour should be considered, or only that which was directed at the featured student (13b:128-132). Therapist 3 asked whether to exclude LSA behaviour towards the student which appeared to be autonomous and independent of my improvised music (13c:105-106, 113) which suggests (s)he was concerned to focus on the effects of the music and not simply on observations of behaviour.

9.4.1.2. Comments about the difficulty of the task

The most frequent comment concerned difficulties associated with judging 'representation', which was viewed as 'looking deeper' (13b:067-068) and inferring a 'state of mind' (13c:016). Comments that it was difficult to distinguish representation from behaviour (13b:127) and to judge the effect of the music on representation (13b:82-84) may simply indicate a cautious reluctance to make inferences about mental processes, rather than uncertainty as to the validity of the concept of representation. It was suggested that the LSA's representation was harder to assess if she was facilitating rather than dialoguing with the student, although this might be easier if one were actually in the room (13a:163-171). A positive comment on the response method was that it was helpful to be able to view all six clips through while considering a single scenario (13a:120-123). For each scenario considered, therapists may have responded with greater confidence to clips viewed later but randomisation ensured that there was no systematic effect.

9.4.1.3. Comments on the difficulty of proving a causal relationship.

It was felt that behaviour is influenced by many factors other than the therapist's improvised music (13a:089-090) and that there might be a musical 'placebo effect' whereby the mere fact of any music being played, rather than none, could encourage a client to continue whatever (s)he was doing (13c:134). Both points remind us of the difficulty of demonstrating specific causal effects of musical characteristics, which may explain therapists' caution in proposing them.

9.4.1.4. Comments on the ambiguity of the support/change distinction

It was pointed out (13a:092-093, 13c:095) that the therapist continues to support even when working to bring about change (a point made forcefully in the pilot interviews) and that as soon as a desired change takes place the therapist is then likely to revert to simple support in order to maintain it. This ambiguity in the support/change distinction was to be raised again in the panel meeting.

9.4.2. Intra-rater agreement between responses to different scenarios

Table 17 shows the calculation of chi-squared to test for the significance of the results obtained. This was treated as a 2-tailed calculation, as any association could be positive or negative. All associations were positive, because observed figures for agreement exceeded expected figures. Figure 16 shows the results graphically. The strongest such effects were highly significant ($p < .001$) positive correlations between judgments. In Figure 16, numbered circles represent the four scenarios and correlations are represented by the lines linking them. The thicker the line, the stronger the correlation.

Therapists 2 and 3 made strongly correlated judgments ($p < .001$) of the influence of the music on scenarios 1 and 3, the student's and the LSA's behaviour, but therapist 1 made no such correlation. Therapist 3 also made judgements of the influence of music on student representation strongly correlated ($p < .001$) with those (s)he had made of its influence on student behaviour at the previous hearing. The other therapists found a weak, statistically insignificant correlation between scenarios 1 and 2. Therapist 3 also made strongly correlated ($p < .001$) judgments on LSA representation and student representation. The correlations at lower significance levels were those between scenarios 3 and 4, LSA behaviour and representation ($p < .01$), made by therapists 1 and 3 and those between scenarios 2 and 3, student representation and LSA behaviour ($p < .05$), made by therapists 1 and 3.

	Scenarios 1 & 2			Scenarios 1 & 3			Scenarios 1 & 4		
	Th 1	Th 2	Th 3	Th 1	Th 2	Th 3	Th 1	Th 2	Th 3
observed agree	61	82	75	50	53	79	42	42	68
observed neither	50	22	32	65	34	38	76	49	42
observed disagree	26	33	30	22	50	20	19	46	39
expected agree	49.85	71.64	52.86	45.93	28.36	49.14	39.32	38.41	57.42
expected neither	61.06	31.03	45.47	71.48	47.06	57.12	81.16	55.07	42.14
expected disagree	26.09	34.34	38.67	19.59	61.58	30.74	16.52	43.52	37.45
	11.15	10.36	22.14	4.07	24.64	29.86	2.68	3.59	10.58
differences	-11.06	-9.03	-13.47	-6.48	-13.06	-19.12	-5.16	-6.07	-0.14
	-0.09	-1.34	-8.67	2.41	-11.58	-10.74	2.48	2.48	1.55
	124.23	107.43	490.12	16.59	606.89	891.70	7.18	12.90	112.02
square of above	122.29	81.53	181.36	42.01	170.52	365.45	26.63	36.88	0.02
	0.01	1.78	75.20	5.80	134.02	115.44	6.16	6.16	2.42
	2.49	1.50	9.27	0.36	21.40	18.15	0.18	0.34	1.95
divided by expected	2.00	2.63	3.99	0.59	3.62	6.40	0.33	0.67	0.00
	0.00	0.05	1.94	0.30	2.18	3.75	0.37	0.14	0.06
sum of above = chi-sq.	4.50	4.18	15.21	1.25	27.20	28.30	0.88	1.15	2.02
	p < .001			p < .001 p < .001					

	Scenarios 2 & 3			Scenarios 2 & 4			Scenarios 3 & 4		
	Th 1	Th 2	Th 3	Th 1	Th 2	Th 3	Th 1	Th 2	Th 3
actual agree	69	28	66	59	45	83	63	41	76
actual neither	61	42	53	72	51	36	70	61	49
actual disagree	7	67	18	6	41	18	4	35	12
expected agree	54.91	26.55	52.34	47.09	37.29	60.74	45.34	36.28	59.36
expected neither	71.48	49.27	59.92	81.16	57.09	45.47	88.82	69.18	57.12
expected disagree	10.61	61.18	24.74	8.74	42.62	30.79	2.84	31.54	20.53
	14.09	1.45	13.66	11.91	7.71	22.26	17.66	4.72	16.64
differences	-10.48	-7.27	-6.92	-9.16	-6.09	-9.47	-18.82	-8.18	-8.12
	-3.61	5.82	-6.74	-2.74	-1.62	-12.79	1.16	3.46	-8.53
	198.67	2.11	186.71	141.73	59.41	495.31	312.03	22.23	276.97
square of above	109.87	52.85	47.88	83.92	37.06	89.63	354.37	66.83	65.88
	13.05	33.84	45.49	7.53	2.63	163.54	1.35	11.97	72.68
	3.62	0.08	3.57	3.01	1.59	8.15	6.88	0.61	4.67
divided by expected	1.54	1.07	0.80	1.03	0.65	1.97	3.99	0.97	1.15
	1.23	0.55	1.84	0.86	0.06	5.31	0.47	0.38	3.54
sum of above = chi-sq.	6.39	1.71	6.21	4.90	2.30	15.44	11.35	1.96	9.36
significance level	p < .05 p < .05			p < .001			p < .01 p < .01		

Table 17: Calculation of chi-square for associations between pairs of scenarios

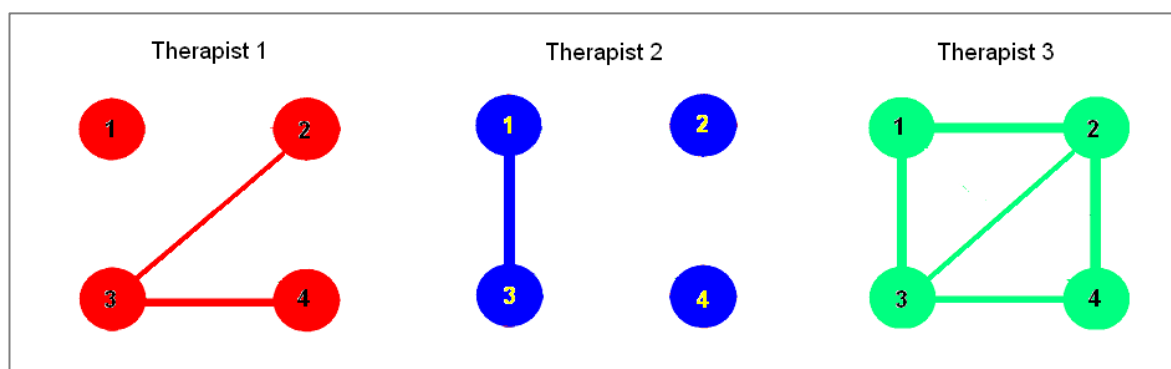


Figure 16: Relationships between scenarios in individual therapists' responses

9.5. Music therapist interviews – Discussion

9.5.1. The music therapists' continuous response method

The invention of the continuous response method using a mechanical dial and pointer enabled therapists to focus on the video clips while responding. If responses had been made by manipulating the display on a screen, this would almost certainly have diverted attention from the video screen showing the clinical material, a problem that does not arise during continuous responding to audio. The therapists who operated the mechanical pointer were able to maintain a focus on the clips, with just the occasional quick glance to check its position.

The main difference between the form of the data obtained with this 'low-tech', user-friendly device and what might have been obtained with a computer interface is not, however, the result of using a physical rather than a virtual device, but rather of the format in which data were transcribed and documented after they had been video-recorded. Documenting pointer movements on a genuinely continuous scale, capable of representing every smallest movement, whether considered or involuntary, was not attempted because of the impossibility of accurately discriminating the many very small pointer movements. The therapists were free to make such movements, but instructed that they should keep the pointer within a segment of the dial and not on the borderline between segments. This had the effect of encouraging the therapists to think about where they were positioning the pointer, rather than reacting entirely spontaneously, even reflexively, as they might have done if squeezing a device such as Nielsen used to measure the perception of musical 'tension' (Madsen and Fredrickson, 1993, p.50). In their measured and sometimes delayed

reactions using the pointer, the therapists may have come closer to reproducing the effect of the improvised music on the student and LSA, who had focused their attention not on the minutiae of the music but on their interaction with each other, and were likely to have responded, not to every detailed change in the improvised music, but to rather more decisive and enduring features.

9.5.2. Using an ordinal response scale for an analogue psychological response

Schubert (2010) points out that the term “continuous” may be applied to rating scales themselves as well as to the fact that judgments are made continuously over time. The perceived strength of musical influence, represented by colour saturation on the dial and response sheets in the present study, is potentially a continuum, as was evident from the therapists’ frequent small movements of the pointer within segments. These small movements probably occurred when changes in the music were not perceived to be strong enough to warrant a change of segment. Such changes may have been made with less conscious deliberation, and perhaps less response latency, because they did not entail a change of segment and the consequent need for care in positioning the pointer. Only the changes of segment were transcribed from the video-recordings of pointer movements, using colours corresponding to segments of the dial, which were then digitised as discrete scores on an ordinal scale.

9.5.3. Advantages of coarse time-sampling

In experiments using continuous responding it is common, after an initial full sampling with a short time interval, to “down sample” by retaining only a proportion of data points at fixed intervals (Schubert, 2010, p. 226). Although modern computer capabilities mean it is no longer necessary to down-sample for the purpose of reducing data to manageable proportions, the procedure is still used. Luck et al (2008), for example, down-sampled extremely finely registered data to intervals of 6 seconds for analysis. Down-sampling may be used to reduce background “noise” in the data. In the present study the down-sampling of the therapists’ continuous responses to 5 second intervals when digitising them probably smoothed out random variability more often than it missed significant detail.

Down-sampling also takes account of the relatively slow reactions humans are able to make to music. Schubert (ibid.) reports that with the exception of “startle” type responses to sudden increases in volume, one second has been found to be the approximate minimum response latency, making a sampling rate of twice per second adequate. In the present study, there was no initial sampling at a set frequency. Instead therapists’ pointer

movements were recorded as changes in the colours of the strips above the musical score with an accuracy limited only by my ability to synchronise the sight of the moving pointer with the soundtrack of the video clips and its transcription in the musical score. I believe errors in the composite response sheets (see detachable supplement) upon which later analysis depended would seldom have exceeded one second (9.3.3.).

Therapists 2 and 3 both suggested that some of their judgments might have been made somewhat after the events that triggered them, that is to say, they might result from musical events which appear earlier in the score than where the changed judgment is registered. These therapists probably had in mind the delay required for emotional and cognitive processing of what they had heard or seen, rather than the much shorter reaction time delay in making a motor response with the pointer. There is therefore a need for caution in interpreting apparent synchrony, according to the composite response sheets, between pointer movements and features of the improvised music, and also between judgments by different therapists or judgments of different scenarios by the same therapist. Time-sampling expressly ignores exact synchronisation and thus reduces the risk of a spurious precision in the data.

9.5.4. The inter-dependence of behaviour and representation

Although a clear conceptual distinction may be drawn between behaviour and internal processes, the difference between observing the former and inferring the latter may be mainly a difference in how one's opinion is formed rather than a radical difference in the data themselves. It could be argued that two such interdependent processes should not be considered in isolation. Indeed the therapists frequently referred to this inter-dependence and, whilst being willing to consider behaviour and representations separately, said little about behaviour without an actual or implied reference to representation, and vice versa. Considering one scenario at a time did not lead to a reductivist or atomized view of the therapy seen in the clips because the therapists felt free to stray outside their brief and were not discouraged from doing so.

9.5.5. Intra-rater agreement between judgments of different scenarios

The findings on intra-rater agreement between scenarios (9.4.2., Table 17 and Figure 16) are interesting because the correlations which are found are almost certainly not the result of therapists consciously recalling earlier judgments when making later ones. It appears, rather, that music deemed to be supportive or challenging of one scenario was fairly consistently felt to have a similar effect on certain other scenarios. This was most

noticeable in the judgments of therapist 3. The strongest correlations are striking, considering that they occur in data aggregated between six contrasting clips, but in every case what are correlated are judgments of the *effect of the music* in respect of a pair of scenarios, which does not necessarily imply that the scenarios themselves are related. It is nevertheless interesting to speculate on why particular correlations were found.

In therapist 3's conceptualisation, student representation appears to hold a pivotal position. It is not surprising that it should be related to student behaviour because of the inter-dependency of representations and the behaviours in which they are enacted. The close relationship in respect of student representation and LSA representation could perhaps be explained by recalling that it is judgments of the influence of the music on these which were correlated. Could the music perhaps have been seen by therapist 3 as a kind of representation of the relationship itself?

The correlations between scenarios 3 and 4 (LSA behaviour and representation) in the responses of both therapist 1 and therapist 3 were unsurprising because of the inter-dependency of behaviours and the representations they enact. That between scenarios 2 and 3, relating the music's influence on student representation to its influence on LSA behaviour, can be understood by considering a hypothetical example: if the therapist was happy with the student's representation he would support it musically and at the same time support the LSA's behaviour as a likely contributory factor in that representation.

9.6. Music therapist interviews – Limitations

9.6.1. The effect of introducing the support/challenge distinction

The requirement to distinguish support and challenge, that is, music maintaining the status quo and music challenging it, was introduced part-way through the pilot study at the strong suggestion of one therapist. Implementing this suggestion, which was no part of my original conception, created an ambiguity which both confused the main panel as they responded and caused complications when analysing the data quantitatively. Therapists' remarks on the support-challenge distinction clearly show that they understood the two functions not as opposed but as complementary, and thus found it restricting to be forced to choose between them. Many continuous response experiments by exponents of the dimensional theory of emotion (Schubert, *ibid.* pp. 228-229) have used a two dimensional response interface, and some such arrangement here would have allowed therapists to have registered degrees of support and challenge *simultaneously* on independent axes, thus reflecting the fact that they are not mutually exclusive but work in tandem.

The most serious drawback of the support-challenge distinction was that it could lump together very diverse interventions and yet separate very similar ones. This was because no opportunity was given until the panel discussion to identify and describe the ‘status quo’ which the music would be judged as supporting or challenging. Calm music might be felt to be supporting a student if (s)he was perceived to be calm, but challenging her/him if (s)he appeared agitated. Two therapists who differed in their judgment of whether the student was calm or agitated would therefore differ in their judgment of the direction of influence of the music even if they both recognised it as calming in effect.

In the panel discussion the therapists were able and keen to justify their judgments by explaining how they perceived the behaviour and mental states of the participants which the music was addressing, but this information had not been represented in the quantitative data. Consequently it is no surprise that instances detected of a particular influence, such as challenging a representation, do not correspond in a systematic way to musical features. Returning to the case of calming music, this could yield a positive score (support) in the time-sampled data if the student was perceived as calm but a negative score (challenge) if the student was perceived as agitated. Characteristic calming features in the music would thus be linked with both positive and negative scores, and a clear pattern from which to draw general conclusions on musical characteristics and their influence would be unlikely to emerge. A way to correct this design flaw is proposed at 12.8.2.

9.6.2. Implications of low inter-rater agreement

Statistical analysis (see 9.2.1 to 9.2.4 and Appendix 17) has revealed a low level of agreement between the therapists’ continuous responses. As the previous section suggests, this need not imply that they were either unreliable or random. It points rather to the ambiguous nature of what they were asked to assess and the diversity of theoretical positions that may be taken when considering the therapeutic process.

The low inter-rater agreement need not imply any inadequacy in either the continuous response method or the method of analysing responses, beyond the problems already discussed in respect of the support/challenge distinction. Schubert (*ibid.* p. 231) cautions that too small a sample may obscure relationships which are actually present, by burying them under random “noise” in the data. If I had recruited a much larger cohort of respondents, the conflicting continuous responses, rather than multiplying further, might instead have clustered into subgroups, each agreeing amongst themselves over one of several conflicting interpretations.

9.7. Music therapist interviews - Summary of findings

Three randomly selected music therapists viewed six of the seven clips and used a continuous response method to make judgments of the influence of the therapist's improvised music upon the students and the LSAs featured. They considered this influence in terms of four scenarios, as follows:

- 1) the influence of music on the student's observable behaviour
- 2) the influence of music on the student's representation of the relationship with the LSA
- 3) the influence of the music on the LSA's observable behaviour
- 4) the influence of music on the LSA's representation of the relationship with the student.

The therapists responded using a pointer on a 7-point scale with a positive side for supporting and a negative side for challenging the status quo. Their responses were video-recorded and then represented graphically, both separately and synoptically (9.1.9., Figures 5 and 6 and detachable Supplement) to show the relationship of their responses to the musical score.

From a time-sampling of responses (9.2.2., Figures 8 and 10 and Table 13) and a range of statistical analyses (9.2.3. – 9.2.8., associated figures and tables and Appendix 17) it was found that inter-rater agreement was generally only slightly greater than chance, both as regards simultaneous judgments and simultaneous changes in judgments. It was clear that this response method had not delivered a single agreed view of the influence of the music.

Each therapist's aggregated responses to all clips were compared for the six possible pairing of scenarios. It was found (9.4.2., Table 17 and Figure 16) that one therapist's judgments were positively correlated for several pairings of scenarios, one for two pairings and one only for one pairing. There were no negative correlations between scenarios.

The next chapter demonstrates how the graphic presentation of therapists' continuous responses, unsupported by statistical analysis, proved to be a potent stimulus to a lively clinical discussion in the music therapists' panel meeting.

Chapter 10: Stage IIIb – The panel meeting

This chapter reports on the two hour panel meeting at which the three music therapists discussed the individual responses to the video clips which they had made as described in Chapter 9 in relation to the musical transcriptions. The opening sections 10.1.1.-10.1.3. report on the pilot panel meeting with different music therapists, and describe the changes in the method made for the main panel meeting.

For each clip, the panel's discussion of the musical influences on student-LSA interaction at decision points chosen by each therapist is reported in some detail, and supplemented by general information on the content of the clip, a summary of the LSA's interview and a graphic presentation of the frequency distribution of therapists' pointer positions.

This chapter should be read in conjunction with the relevant pages in the detachable supplement.

10.1. Music therapists' panel meeting – Method

10.1.1. Preparing for the pilot panel meeting

To prepare the panel members for their meeting they were sent copies of the response sheets they had completed in their individual meetings (Appendix 13) and also response sheets combining the responses of all three therapists (Appendix 14). On the latter the responses of different therapists were represented by different colours, and light or dark shades of these colours distinguished judgments that the music had supported from judgments that it had challenged a particular scenario. Therapists were asked to prepare to discuss their responses at the pilot panel meeting.

10.1.2. The pilot panel meeting

For each video clip the panel watched it once and I then pointed out a few places where visual inspection of the response sheets showed agreement between therapists' responses, and others where it showed disagreement, with one therapist judging music supportive of the student's or the LSA's behaviour or representation whilst another judged it challenging, that is, aiming to a change behaviour or representation. The therapists themselves then located similar instances of agreement and disagreement, and a free and spontaneous general discussion ensued, with little prompting from me and no attempt to reach a final consensus about any clip. The meeting was recorded, transcribed and returned to each therapist for checking. The transcript of the meeting appears at Appendix 10. The right hand column suggests changes needed before the main panel meeting.

The main change made for the main panel meeting was to restrict the provision of background information, both about the students featured and about what the LSAs had said in their interviews, in case it should interfere with the expression of the therapists' spontaneous responses to the clips. I also omitted the original clip 6, because the pilot panel had found the keyboard part barely audible and difficult to assess. The original clip 7 was renumbered 6 for the main study.

10.1.3. A tighter structure for the main panel meeting

Free-ranging discussion in the pilot study panel meeting had produced an unbalanced coverage of the clips. For the main study panel meeting I needed to ensure a more comprehensive coverage. Therapists would be asked to prepare in advance what they wished to discuss. Some selection would be necessary from the considerable volume of potential data. I visited the three therapists individually, giving them copies of both their

own response sheets (Figure 5) and the combined response sheets (Figure 6). I made copies of the clips on the therapists' personal computers, encrypted as explained at 8.1.3., and provided instructions for their decryption.

Inspection of the combined response sheets supplied to the therapists showed that in their individual interviews they had differed not only as to the *degree* of influence of the music on the four scenarios (strong or weak, shown by dark or light blue or pink) but also quite often as to the *direction* of influence (support or challenge, shown by pink *with* blue). I considered that this disagreement could be a stimulus to discussion, but I realised that it might be difficult for therapists to account for some of the judgments they had made in 'real time' with no opportunity for second thoughts. Some judgments would however probably be easier than others to recall, explain and justify in relation to the musical transcriptions. These would probably be those where strong judgments (moving the pointer to dark blue or dark pink) had been made. For therapists 1 and 2 these decision points were where they had moved the pointer to Z or C on the dial. For therapist 3, who never used Z or C they were where (s)he had moved the pointer to Y or B. All such decision points where strong judgments were made were numbered in order of their occurrence within each clip and then listed as in Table 18. In this table, decision points for therapists 1, 2 and 3 are listed in red, blue and green respectively.

Comparison with the contemporaneous judgments of the other two therapists could yield three distinct situations. Where the other two therapists had used the same colour (disregarding shades) a decision could be described as 'uncontested'. Where one of the other therapists had used the opposite colour the decision could be described as 'contested' and where both used the opposite colour the decision could be considered a 'minority' one. In Table 18, all minority decisions and a few contested decisions were underlined.

On the combined response sheets, the decision points were highlighted by circling them in the three therapists' colours, using heavy circles for decision points underlined in Table 18. Figure 6 shows a sample page, containing one minority decision marked with a heavy circle, and three decision points marked with light circles, two of which are contested and one uncontested. The therapists' instructions were to look through the list of their own decision points and the corresponding red, blue or green circles on the composite response sheets, view the clip and select four decision points which they felt most confident of explaining. I suggested giving priority to those marked with heavy circles. The therapists conveyed their choices to me by email prior to the panel meeting. When I listed these I found some imbalance in the coverage of clips and of scenarios, which I partially corrected

by making a selection of three decision points from the four offered by each therapist to produce Table 19. Tables 18 and 19 use aliases for clients' real names.

	Tiffany	Anastasia	Cameron	Shaun	Zeb	Aprille	TOTALS
SB	3 6 10 13	2	<u>4</u> <u>9</u> 5	<u>11</u> 8	2 6	4 5	<u>2</u> <u>1</u> 5 3 3
SR	1 2 7 12 15	4 16	12	2 10	1 8 9	<u>6</u> <u>14</u> 3 10 17 19	<u>1</u> <u>1</u> 5 3 9
LB	<u>14</u> 4 8 11 16	5 9 14 17	<u>3</u> 6 10	<u>12+13</u>	<u>10</u> 5		<u>1</u> <u>2</u> 7 4
LR	5 9	<u>3</u> <u>10</u> 13 15	<u>14</u> 2 7	<u>1</u> 3	<u>12</u> 3 4	<u>9</u> <u>18</u> 1 8 13	<u>4</u> <u>1</u> <u>2</u> 2 10
SB		<u>12</u>	13 15	4		12	<u>1</u> 1 3
SR			1	6 14		<u>2</u>	<u>1</u> 2
LB		<u>6</u>	<u>8</u>	<u>9</u> 7	<u>7</u>	<u>11</u>	<u>5</u> 1
LR		<u>1</u> <u>2</u> <u>7</u> 8 11	<u>11</u>	<u>5</u>	<u>11</u>	<u>15</u> 7 16	<u>3</u> <u>4</u> 4
TOT	7 2 <u>1</u> 6	<u>2</u> <u>3</u> <u>2</u> 4 7	<u>2</u> <u>2</u> <u>2</u> 3 3 3	<u>1</u> <u>2</u> <u>2</u> 1 1 6	<u>2</u> <u>1</u> <u>1</u> 4 4	<u>2</u> <u>2</u> <u>2</u> 1 2 9	<u>9</u> <u>10</u> <u>10</u> 20 8 35

KEY

SB = supporting student behaviour SB = *challenging student behaviour*
 SR = supporting student representation SR = *challenging student representation*
 LB = supporting LSA behaviour LB = *challenging LSA behaviour*
 LR = supporting LSA representation LR = *challenging LSA representation*

1, 2 = decision points by therapist 1 1, 2 = minority and contested decisions
1, 2 = decision points by therapist 2 1, 2 = uncontested decisions
1, 2 = decision points by therapist 3

Table 18: Long list of 'decision points' from which therapists made a selection

10.1.4. The panel meeting

The music therapists were seated facing the screen of the computer which played back the video clips. A video camera also faced the screen, so positioned that its inbuilt microphone could pick up the voices of the therapists and me. I introduced the decision points from Table 19 one at a time. For each decision point I played the relevant clip once before asking the therapist whose decision it was to comment. I then invited the other therapists to add their thoughts. Therapists could request further viewings as required.

	Tiffany	Anastasia	Cameron	Shaun	Zeb	Aprille	TOTALS
SB				<u>11</u>		4	<u>1</u> 1
SR							
LB			<u>3</u>				<u>1</u>
LR						<u>2</u>	<u>1</u>
SB		<u>12</u>					<u>1</u>
SR						<u>2</u>	<u>1</u>
LB		<u>6</u>		<u>9</u>			<u>2</u>
LR					<u>11</u>		<u>4</u>
TOT		<u>1</u> 1	<u>1</u>	<u>1</u> 1	<u>1</u>	<u>1</u> 1 1	<u>3</u> <u>2</u> <u>3</u> 1

Table 19: Final list of ‘decision points’ discussed in the panel meeting

10.1.5. Checking of transcripts and analysis

The complete transcript of the panel discussion, with therapists’ words colour coded, was emailed to therapists for checking. They did not have access to the audio-recording, but all replied that they were satisfied their words had not been materially misrepresented. I then summarised their comments to the right of the main text (Appendix 14) and analysed my own contribution separately (Appendix 15).

10.2. Music therapists’ panel meeting – Results I: Individual clips

The emphasis in Table 19 on points where continuous responses had diverged led to a lively discussion which illustrated differences in interpretation of the clinical material. Therapists also occasionally commented on places where the response sheets showed they had agreed in their judgements, but these were not discussed in detail. Data will be presented in the following sequence for each clip:

- 1) a description of what can be seen on the video
- 2) a summary of the LSA’s interview
- 3) a set of histograms showing the music therapists’ continuous responses, colour coded as in figure 7, each histogram modeled on figure 9 and the whole set laid out as in figure 10, as explained at 9.2.3.
- 4) a short comment on the music therapists’ continuous responses
- 5) a summary of the music therapist panel’s discussion(s) of one or more decision point(s)

(For clips 1 and 6a, which were not discussed, section 5 above is omitted, and for clip 6a, which was not viewed in the individual meetings, sections 3 and 4 are also omitted.)

To locate the musical transcription for each discussion topic, readers should turn to the detachable supplement and find the specified page. Page numbers are located first within the clip and then within the complete supplement, e.g. “pp. 1-6/12-17”. The second set of numbers is the more useful. Then find the circle corresponding in colour to the therapist initiating the discussion (red = 1, blue = 2, green =3). Discussion topics are numbered in the order in which they were actually discussed, but presented here in the original order of clip numbers. Transcripts of the full discussion are in Appendix 16. Aliases are used in place of clients’ and assistants’ real names throughout the remainder of chapter 10 and chapter 11.

10.2.1. Clip 1: Client: “Tiffany” and assistant: “Jean” (pp. 1-10/2-11)

10.2.1.1. General description

No other group members or LSAs were present. This was one of several occasions when they had been absent. Tiffany and Jean were seated side by side in front of a metallophone. Tiffany’s degenerative neurological condition had been progressively destroying her ability to control the timing, direction and strength of upper limb movements. Jean’s physical support consisted of repeatedly placing a beater in her hand, gently supporting her grip whilst also allowing her to let go at intervals, and guiding her stick so that it was likely at least sometimes to land on the metallophone. Tiffany appeared unable to control either the choice or the timing of notes, which were therefore erratic and would have sounded incoherent without accompaniment. She did not seem distressed and Jean showed neither frustration nor any other emotion in relation to the student or the task.

10.2.1.2. Jean’s comments

To summarise Jean’s interview (Appendices 7a/1 and 7b/1) she explained that whilst Tiffany needed support she also had a right to self-determination. Her willing participation was a sign of enjoyment. Jean found it pleasing that Tiffany noticed the keyboard music and responded to the therapist’s voice. However, she considered that in this clip, though not in other group therapy activities, the therapist’s music functioned essentially as background.

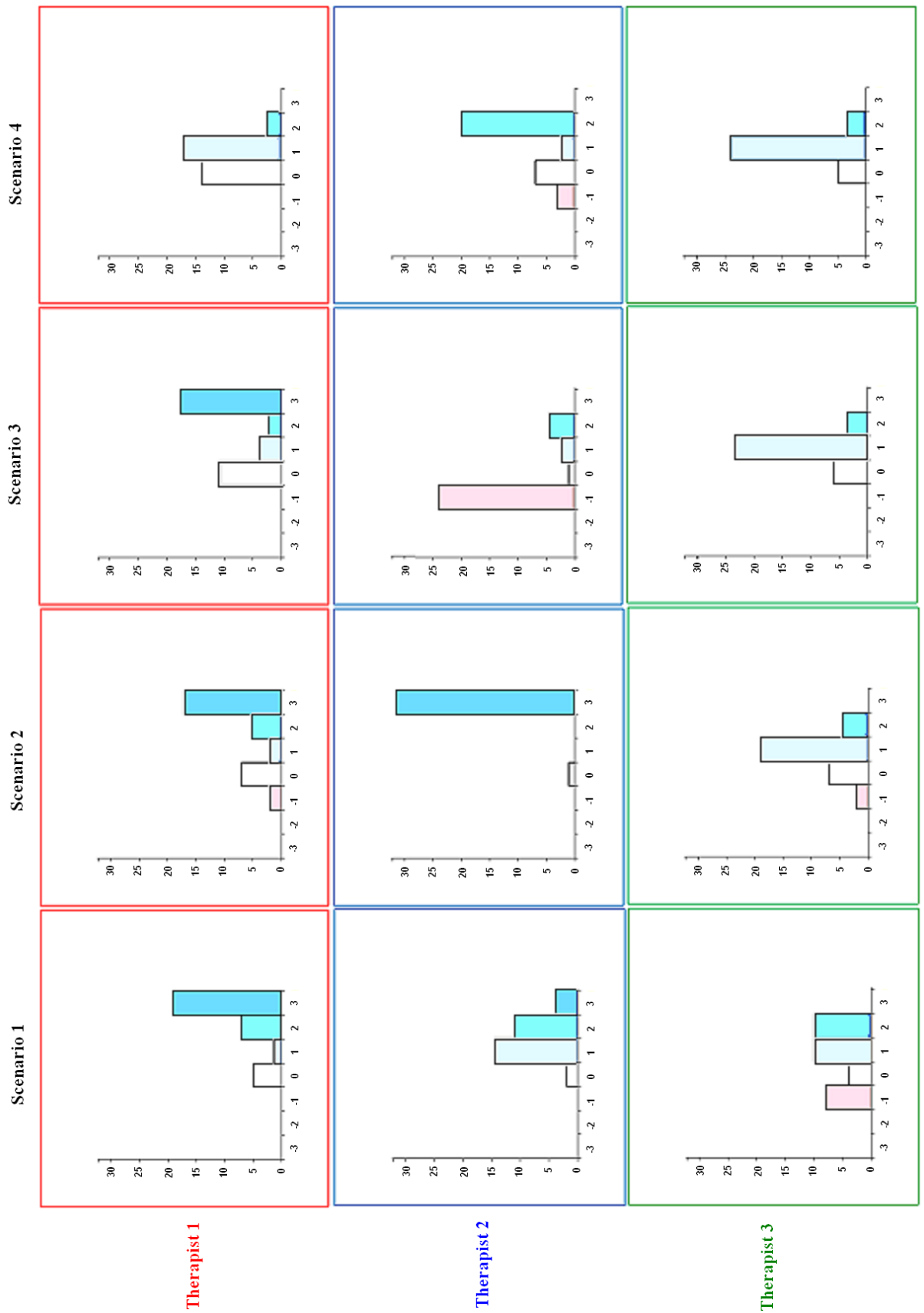


Figure 17: Frequency distribution of therapists' pointer positions, clip 1

10.2.1.3. The music therapists' continuous responses

Therapists' responses using the pointer (pp. 1-10/2-11), summarised in Figure 17, indicated that my music was mostly felt to be supportive, especially of Tiffany's representation. Support tended to be more often registered when Tiffany played more, rather than in response to changes in my music. Support of Jean's representation was seen as weakest, especially towards the end, and therapist 2 felt my music was gently challenging Jean's behaviour for much of the clip. No therapist had chosen to discuss any of the suggested decision points. This could be because therapists found my improvisation rather uneventful, making it particularly hard to either remember, or deduce from the score, why they had made particular judgments.

10.2.2. Clip 2: Client: "Anastasia" and assistant: "Jenny" (pp. 1-6/12-17)

10.2.2.1. General description

Anastasia played a cabassa on her lap in her characteristic perseverative manner. Her playing changed from tentative and unformed to more regular and stronger. She turned frequently towards Jenny, touching her arm when she briefly attended to another student. She clapped to gain Jenny's attention, and twice offered her the cabassa, which was also a characteristic behaviour. The first time, Jenny declined it. The second time, Anastasia was about to withdraw it herself as the clip ended. Jenny frequently watched Anastasia and leaned towards her, nodding and smiling, as though encouraging her to continue playing.

10.2.2.2. Jenny's comments

To summarise Jenny's interview (Appendices 7a/2 and 7b/2) she said Anastasia interacted using body language and her characteristic teasing. She had focused well on her playing despite a distraction and was helped to do so by the quietness of the other students. Jenny only talked of Anastasia's behaviour and interaction with herself and not of the keyboard music. She admired Anastasia's cabassa playing, although she described it as habitual.

10.2.2.3. Music therapists' continuous responses

Therapists' responses using the pointer (pp. 1-6/12-17) summarised in Figure 18 were more wide-ranging and more at variance with each other than for clip 1. Therapist 2 differed from the others in hearing the music as challenging both Jenny's behaviour and her representation later in the clip.

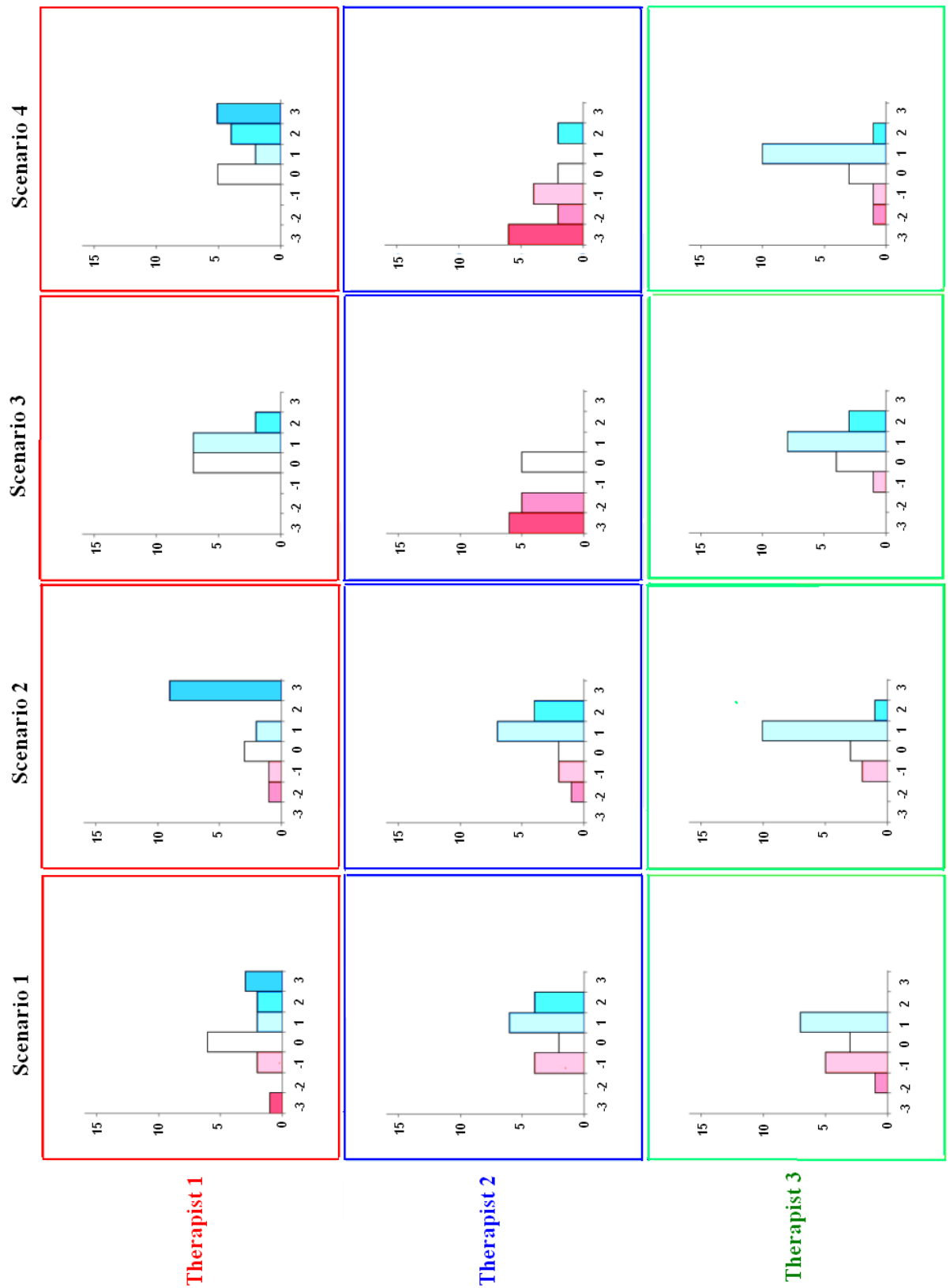


Figure 18: Frequency distribution of therapists' pointer positions, clip 2

10.2.2.4. Discussion topic 5 – challenging student behaviour (scenario 1)

Therapist 1 chose a point (p.4/15) where (s)he had indicated that the improvised music was intended to challenge Anastasia's behaviour (score: -3). I had been repeatedly singing that "Jenny's listening to Anastasia" and therapist 1 said that at this point Anastasia looked intently at Jenny in response to an intensification of Jenny's focus on her. However, she said nothing about the accompanying music. Jenny's intense focus on Anastasia became a discussion topic involving all three therapists. Therapist 2 said (s)he had not previously noticed any change in eye contact, having been pre-occupied with watching Anastasia's hands as she played. Therapist 3 likewise had not noticed the change in eye-contact, and said her/his indication of gentle support for Anastasia at that point (score +1) was probably based on my steady accompaniment of Anastasia's playing on her cabassa. This was the only comment related to music, as opposed to lyrics.

The therapists' main interest was in the student-LSA interaction and in how my sung words related to that interaction and may have influenced it. The whole discussion may be found at Appendix 16, lines 0274-0308, and exemplifies how easily the panel's interest in details of the LSA-student interaction overshadowed the stated purpose of judging the effect of the music. It is possible, however, that my improvised music could have played a part in stimulating this interest.

10.2.2.5. Discussion topic 7 – challenging LSA behaviour (scenario 3)

Therapist 2 chose another point in clip 2 (p. 3/14) where (s)he had felt the improvised music was intended to challenge Jenny's behaviour (score: -3). (S)he interpreted my words "are you listening to me?" as being sung on Jenny's behalf, and felt that Jenny was anxious to demonstrate that she was doing as I had asked, because some assistants often displayed over-anxiety to please . Therapist 1 agreed that Jenny had certainly seemed keen to "get it right". Therapist 3 noted that a little later in the score (s)he had judged the music strongly supportive of Jenny's behaviour, because (s)he felt the words "are you listening" were not a criticism of Jenny but an acknowledgment of her listening. The whole discussion may be found at Appendix 14, lines 0428-0491. Once again, all the therapists' remarks revolved around the words I had sung, rather than any purely musical feature.

10.2.3. Clip 3: Client: “Cameron” and assistant: “Kate” (pp. 1-9/19-27)

10.2.3.1. General description

Cameron was examining a cabassa on his lap with little evident interest and little awareness of Kate, who was calmly watching him and smiling. Several flourishes on the keyboard had little observable effect, but when I held a long trill Cameron looked towards Kate, then after a pause took her hand and started to clap with it on his other hand. His delighted laughter synchronized with the tempo established by the keyboard. Later he took Kate’s other hand also, thus appearing to control her clapping. The timing of the erratically spaced claps may have been negotiated between Kate and Cameron in the sense that Kate would have aimed to regularise it, but would not always have imposed her wishes on Cameron, who increasingly held her hands apart and twice enforced a long delay before an expected clap, while Kate and my keyboard music waited for him. At one point he tried to use Kate’s hands to rub his head, but she persuaded him to return to clapping. He ignored the unexpected entry of a teacher to fetch something from a cupboard.

10.2.3.2. Kate’s comments

To summarise Kate’s interview (Appendices 7a/3 and 7b/3) she said Cameron normally resisted anything he suspected might involve ‘work’, and at the start of the clip simply wanted to be left alone. (Kate’s references to Cameron’s more usual persona look negative, even dismissive, on paper, but were spoken in quite an affectionate tone, which may owe much to having recalled with delight from this clip that he could be very different.)

On this occasion, Cameron actively sought to interact with Kate and enjoyed a fantasy, which she allowed him to develop, of making her work. He came out of himself and became a different person, independent and focused on the activity, even when a teacher entered. He initiated the interaction as a response to the therapist’s music, spotted the link between that music and his actions and urged the therapist to continue playing. It was hard to tell who was following whom. Cameron interacted with the keyboard music rather than with Kate. Kate believed music therapy helps LSAs to understand their students, but gave no indication that the music had influenced her actions or enhanced her delight at Cameron’s responsiveness.

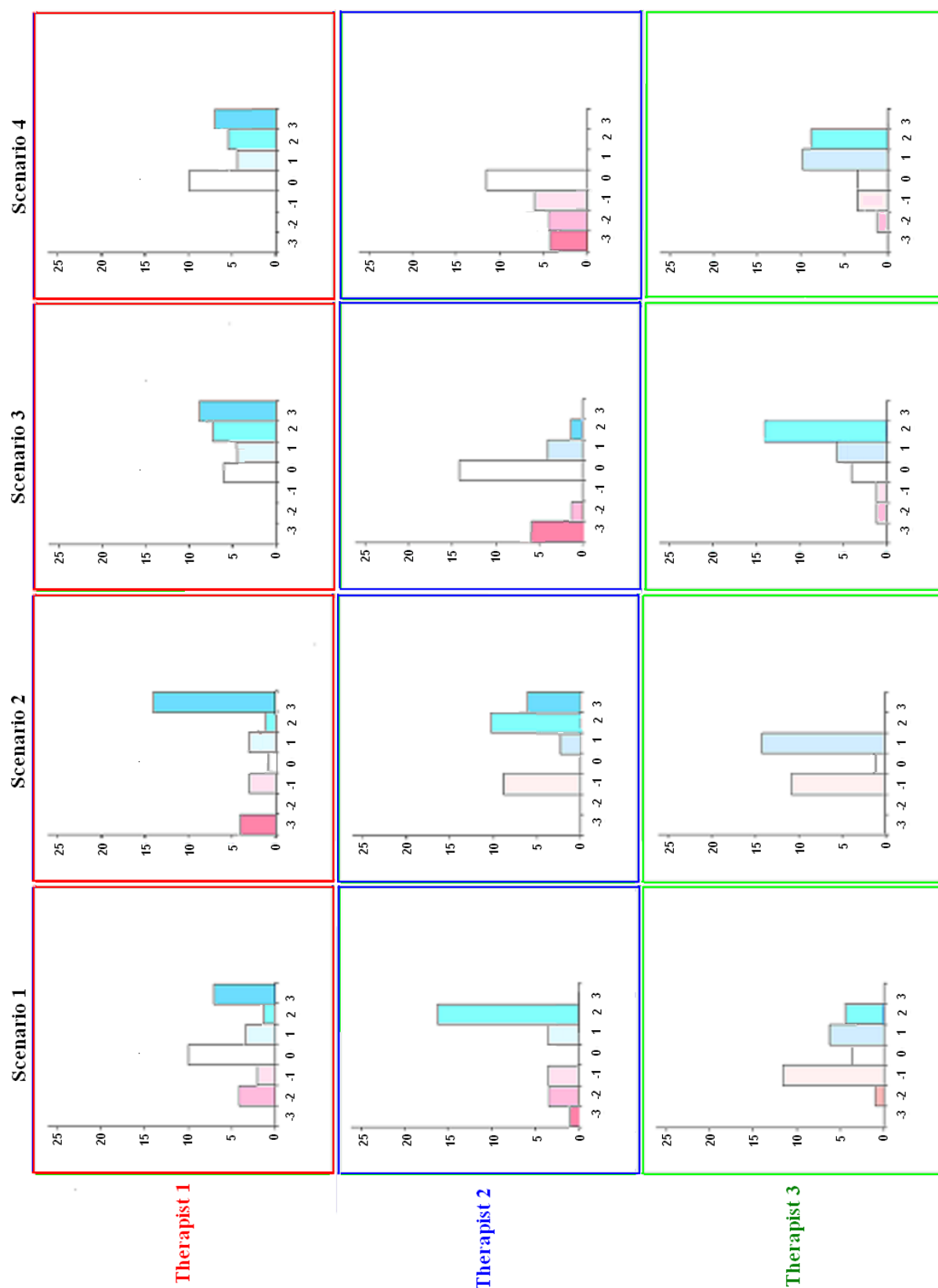


Figure 19: Frequency distribution of therapists' pointer positions, clip 3

10.2.3.3. Music therapists' continuous responses

Therapists' continuous responses (pp. 1-9/19-27) are summarised in Figure 19 and broadly indicate that my opening music, before Cameron became engaged, was intended to challenge his behaviour and representation. Once the shared clapping had started, for the remainder of the clip they generally found the music supportive across all scenarios, although therapist 2 judged that it challenged Kate's behaviour and representation for a while.

10.2.3.4. Discussion topic 3 – support of LSA behaviour (scenario 3)

Therapist 3 chose the moment just before the start of the lively interaction between Cameron and Kate (p. 3/20) where (s)he had judged the improvised music supportive of Kate's behaviour (score: +2). (S)he focused on aspects of timing and texture as the music responded to developments in the interaction between Cameron and Kate: "I just think your arpeggiation and sort of held chords here seemed to give just the right amount of space for that physical interaction." Therapist 1 added that the same musical features created a sense of anticipation and therapist 3 described the music as affectionate and warm. Both these comments linked musical features to motivational and expressive effects, focusing more on Cameron's behaviour (scenario 1) than Kate's although the discussion had started with a discussion of scenario 3.

I pointed out that a moment later in the clip (p. 4/22) therapist 2 had indicated that the music was challenging Kate's behaviour (score: -2). (S)he said (s)he felt I was trying to ensure that Kate did not "stop that", in other words interfere in any way with the new clapping interaction. Therapist 1 suggested that when this previously lackadaisical student became involved with my music and showed a burst of activity this acted as a signal to Kate to give less support. Therapist 3 pointed out that whilst Kate had initiated the lively interaction by taking Cameron's hand, I had also initiated it by singing "Oh we can clap". Therapist 1 thought the words "we can clap" had referred to Cameron and me. This apparent reluctance to see Kate as a target of an intervention resembles the views of several LSAs (Chapter 8) that the music is intended for the student alone. The whole discussion may be found at Appendix 14, lines 0158-0203.

10.2.4. Clip 4: Client: “Shaun” and assistant: “Gina” (pp. 1-10/27-36)

10.2.4.1. General description

Shaun sat, somewhat reclining, in his wheelchair with his left arm hanging limply. His right forearm was supported by Gina so that his fingers could tap the bongos she held above his lap. A second LSA brought a stick so that Shaun could get a clearer sound from the bongos than his hand, which was very floppy, was able to produce. Shaun smiled as he received it, straightened and stiffened his arm and managed to grip the stick. Gina supported his elbow and he beat the bongos. He only played briefly and intermittently because Gina only supported a few beats at a time, periodically stopping to give him a chance to make the movement independently. Although this did not happen, his changing muscle tone may have influenced whether Gina prompted or just supported and waited.

The other two students present were very quiet until Zeb started to beat a cymbal loudly (p. 5/32, bar 2) while Shaun watched him. Zeb soon stopped playing as I slowed down my supporting music. After a slow and steady section, during most of which Shaun did not beat at all, both Zeb and Tony started to play more quickly (p. 6/33, bar 5). As I picked up their new tempo and sang, “They’re telling you it’s faster now”, Gina supported Shaun to play continuously in the new tempo and he opened his mouth wide with pleasure. When the original tempo returned, he played for a few bars then stopped soon after the start of some loud accents played by Tony. After an interval during which Gina allowed Shaun to listen without prompting him to play, I slowed down and then resumed the steady tempo (p. 9/36, bars 5-7) at which point she supported him to play steadily again. When she stopped, Shaun did not play spontaneously. All three LSAs in the room agreed that he had been really excited.

10.2.4.2. Gina’s comments

To summarise Gina’s interview (Appendices 7a/4 and 7b/4) she said Shaun clearly enjoyed himself as he liked loud, fast music, change and variety, feeling vibrations through his hands and participating with friends. She tentatively suggested he would have responded more if I had done more of the fast, loud playing, with more contrast. He required support that was both physically and psychologically sensitive. It was difficult but necessary to hold back to give him the opportunity to play spontaneously. Music therapy is not the same as education, but does have a value in training skills of perceptual discrimination. The keyboard music can initiate interactions and provide a rhythmic framework.

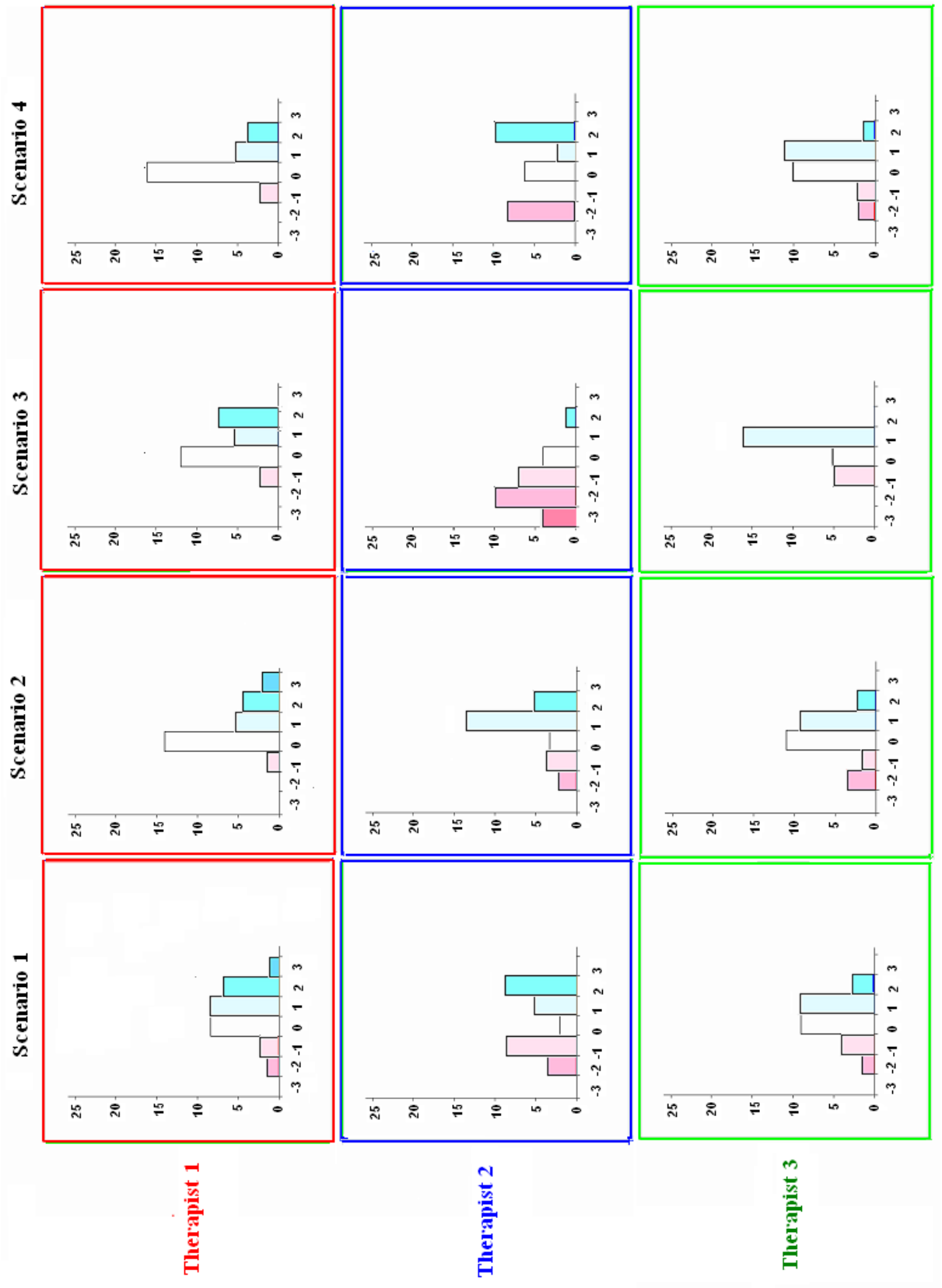


Figure 20: Frequency distribution of therapists' pointer positions, clip 4

10.2.4.3. Music therapists' continuous responses

Therapists' responses using the pointer (pp. 1-10/27-36), summarised in Figure 20, show agreement that the music was supportive of all scenarios, except that therapist 2 felt it challenged the LSA's behaviour almost throughout, and at times her representation also.

10.2.4.4. Discussion topic 1 – supporting student behaviour (scenario 1)

Therapist 1 chose a point (p.10/36) where she felt Shaun's behaviour was strongly supported (score: +3) by the improvised music. When I pointed out that there was no marked change in my improvised music at that point (s)he explained that it was at that point that it had become clear that Shaun was moving independently and not simply having his arm controlled by Gina. Therapist 2, who had scored –1 at that point, said (s)he had thought Gina was controlling Shaun but on viewing the clip again was no longer sure, and therapist 3, who had scored +1, felt Shaun was moving independently but agreed that the music had not changed significantly. All three therapists were thus basing their judgments on observation of the student-LSA interaction rather than on any feature of the music, whilst apparently accepting that the music had some unspecified influence. In effect they took their perception that Shaun was sometimes moving independently as sufficient evidence that the improvised music was supporting him. However, therapist 3 requested a second viewing, after which (s)he observed that just before therapist 1's decision point the *a tempo* was actually faster than the preceding phrase. (S)he did not elaborate on the possible effect of this. After therapist 1 reiterated his/her verdict on Shaun's autonomy, therapist 3 suggested that perhaps I and Gina, separately and independently, had supported Shaun, by first accepting a pause in his playing and then going with him when he resumed. The complete discussion is at Appendix 14, lines 0007-0074.

10.2.4.5. Discussion topic 8 – challenging LSA behaviour (scenario 3)

Therapist 2 chose another point from clip 4 (also on p.10/36) where (s)he felt the improvised music was intended to challenge Gina's behaviour (score: –3). Though uncertain of exactly what (s)he had felt during the continuous responding task, after viewing the clip twice more (s)he suggested that by finishing one keyboard phrase and immediately starting a new one I had encouraged Gina to resume assisting Shaun when she seemed to flag. Therapist 1 agreed that Gina had followed my "musical cues". The discussion focused on the effect of my playing on the interacting partners and may be found at Appendix 14, lines 0496-0525.

10.2.5. Clip 5: Client: “Zeb” and assistant: “Dana” (pp. 1-5/37-41)

10.2.5.1. General description

At first, Zeb was playing a djembe drum with a stick held in his left hand, watching a male LSA who was gesturing at him to play. When Dana, sitting opposite him, started to play her hand-held tambour, also with a stick and at a similar volume, Zeb immediately turned and watched her, and his stick movements became rather erratic, sometimes missing the drumhead. He transferred the stick to his right hand but seemed to find it harder to play quick notes and so returned it to his left hand. It was evident that Zeb and Dana were aware of being engaged in a dialogue and were attempting to enmesh their quick-fire rhythmic responses, but it was less clear whether either of them was trying to imitate the other. After a while Zeb stopped playing and rocked with excitement. Dana gave a clear single beat and the other LSA prompted Zeb to resume by briefly tapping his drum. Zeb’s playing became fragmentary, although he still appeared to be trying to imitate Dana, who had greatly simplified her playing in response to the keyboard music.

10.2.5.2. Dana’s comments

To summarise Dana’s interview (Appendices 7a/5 and 7b/5) she said her playing had caught Zeb’s attention and she had tried to create a feeling of anticipation. Zeb was very excited and his pleasure at seeing Dana enjoying the interaction was characteristic. Dana had tried to discover whether Zeb would imitate her, but was unsure if he would, or even if he could. Zeb had noticed the keyboard imitating the dialogue. He loved all physical activity, especially but not exclusively if it involved interacting with others, and was hard to involve in anything else.

10.2.5.3. Music therapists’ continuous responses

Therapists’ continuous responses (pp. 1-5/37-41) are summarised in Figure 21. Therapist 1 felt that Zeb’s behaviour, i.e. his drumming, was challenged almost throughout by the keyboard. Therapist 2 felt it was Dana’s behaviour that was challenged. With these exceptions the music was judged to be more often supporting than challenging.

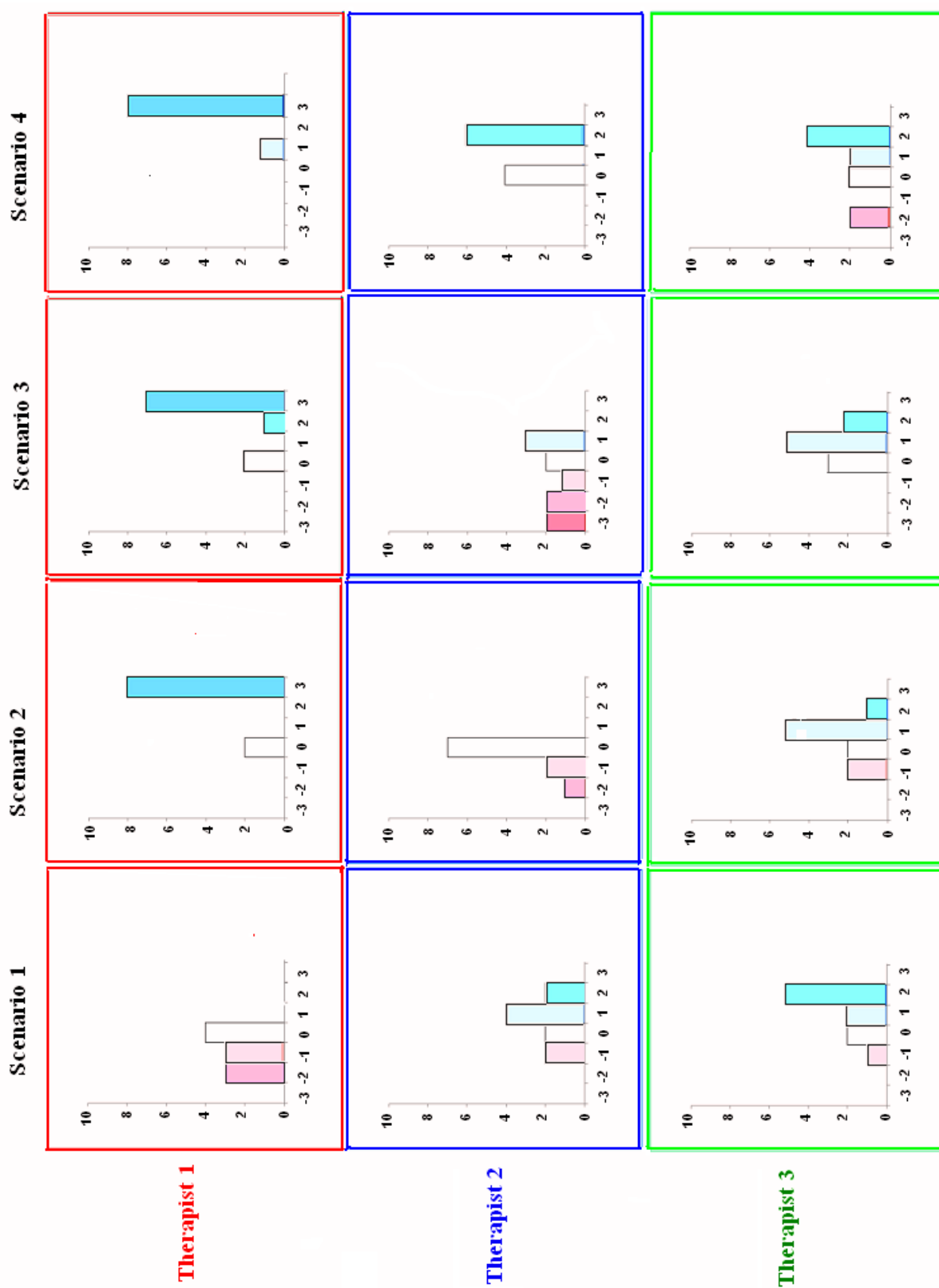


Figure 21: Frequency distribution of therapists' pointer positions, clip 5

10.2.5.4. Discussion topic 9 – challenging LSA representation (scenario 4)

Therapist 3 chose a point (p. 4/40, bar 21) where (s)he had indicated that my improvisation was intended to challenge Dana's representation (score: -2). (S)he suggested that by strongly supporting Zeb's playing I had encouraged Dana to follow him rather than dialogue with him. The discussion then became rather confused when I realised that Dana's and Zeb's staves had been labelled the wrong way round on page 4/40. (This has been corrected in the Supplement). I apologised for the mistake and therapist 3 agreed that (s)he had been misled by the error in the score when discussing the point, although (s)he had of course not seen the score when making the original judgment. After therapists 2 and 1 pointed out the keyboard's strong accent at the point under discussion, and also two bars earlier, therapist 3 re-formulated her/his explanation in terms of my inducing Dana to synchronise her music with mine for Zeb's benefit – "you and I are playing together *for* Zeb" – rather than simply with him. This changed Dana's representation, and therapist 3 noted the paradox that the same music first effects and then supports a change. Therapist 1 pointed out Dana's body language of leaning towards the student to get his attention. The whole discussion may be found at Appendix 14, lines 0538-0638.

10.2.6a. Clip 6a: Client: "Hamid" and assistant: "Terry" (pp. 1-6/51-56)

This was the original clip 6. It was not viewed by the music therapy panel because the pilot panel felt the sound quality was too poor. It has therefore been re-numbered 6a, and the musical transcription, not in the detachable supplement, may be found in Appendix 7d, in the file entitled LSA6a.pdf.

10.2.6a.1. General description

Hamid was seated with a glockenspiel on a table over his lap, attached to his wheelchair. Terry repeatedly modelled playing a *glissando* because this seemed to please Hamid. She put the beater into his right hand and he immediately played a series of notes which were evenly spaced but with no obvious attention to pitch, which varied randomly within a small range. He looked at Terry for approval, giggled and returned the stick. Terry played again then offered him the stick. This time he seemed to resist, and Terry said "your turn". Another LSA said "Hamid's turn". Eventually he accepted the stick but only played a few notes before offering it back to Terry. She played another loud glissando, handed back the stick and waited. Hamid played a long phrase similar to his first, then experimented rather hesitantly with single notes at different pitches. Terry's next turn was a slow downward scale which Hamid tracked with interest, before hitting the keys with his hand. He played

another phrase similar to his first, then looked at Terry, vocalised gently and seemed to be attempting a *glissando*, although the beater appeared to stick between the chromatic keys. Terry helped him hand-over-hand to play a *glissando* but he then returned to his original style of playing. From time to time throughout the clip, Hamid gave eye-contact, mainly to Terry but also to another student and the LSA on his other side.

10.2.6a.2. Terry's comments

To summarise Terry's interview (Appendix 7a/6a and 7b/6a) she found watching the clip emotionally moving and admitted to having feelings for Hamid. His interaction with her and with another student was communicative, as his use of eye-contact showed. She and Hamid had got to know each other really well, and he had made great progress since the time he had resisted entering the room and been distressed by loud noises. She had varied her music to see what Hamid would like, and could imitate. She felt the keyboard music had a similar exploratory function, as well as supporting Hamid and encouraging him to play.

10.2.6. Clip 6: Client: "Aprille" and assistant: "Lucy" (pp. 1-9/42-50)

10.2.6.1. General description

Aprille was holding an ocean drum flat on her lap. She hit it vigorously in short bursts with her left hand. She stopped and looked at Lucy and then at the LSA on her other side. When I sang her name she picked up the drum and tipped it from side to side and backwards and forwards, watching the beads moving. She appeared to have high muscle tone (not amounting to spasticity) and the movement involved her whole body. She turned towards the other LSA while continuing to play, and then looked dreamily into space, in the direction of the therapist. (It is hard to tell whether Aprille actually gave me eye-contact.) She started to tip the drum more vigorously from side to side but then stopped and listened while the other LSA played a cabassa to the other student. She shook the drum briefly, stopped and looked at Lucy, swayed and, seeing Lucy mirror this, resumed playing. She then held the drum upright on her lap and tapped it with her fingers. She reached out for Lucy's arm, and when Lucy declined to take the drum she stood up and held the drum near her face. Lucy gently turned her round and she deliberately dropped the drum as she was eased, somewhat unwillingly, back onto her chair.

10.2.6.2. Lucy's comments

To summarise Lucy's interview (Appendix 7a/6 and 7b/6) she said this clip showed a day when Aprille responded particularly well, watching and listening to others, maintaining her concentration on her playing, responding to changes in the keyboard music and looking at the therapist when he sang her name. Aprille had wanted her playing to be noticed and Lucy had felt really proud of her. Her role as LSA was to encourage the student to act independently, by subtly nodding, smiling, swaying with her music and giving the occasional drum beat, and to avoid stealing the limelight. She no longer needed to use "motherese" with Aprille as she had done in the past. She (Lucy) had responded partly unconsciously to the keyboard music, for example by swaying. LSAs needed to get on the therapist's wavelength, and with time they generally did so. Watching video brought back memories and was a rare opportunity to think about the work. The LSAs had strongly advocated for a continuation of music therapy groups when a new therapist took over.

10.2.6.3. Music therapists' continuous responses

Therapists' continuous responses (pp. 1-9/42-50), summarised in Figure 22, show they generally found my improvised music supportive of Aprille's representation, and to a lesser extent of her behaviour. Responses for scenarios 3 and 4 were more divided, with therapist 1 detecting no moments of challenge, but therapist 2 detecting challenge to the LSA's behaviour and representation almost throughout.

10.2.6.4. Discussion topic 6 – challenging student representation (scenario 2)

Therapist 3 chose a point (p. 2/43) where (s)he had felt the improvised music was intended to challenge Aprille's representation (score -2). Therapists 1 and 2 had judged the music to be purely supportive (scores +1 and +2). Therapist 3 pointed out that (s)he had moved the pointer to light pink when the keyboard music had changed to *legato*, and the sung melody had gone into long notes. (S)he had then moved to dark pink a little later at the chosen discussion point as (s)he became more conscious of the effect of the music.

Although the music supportively matched Aprille's body movements, by making her aware of them it also changed her self- awareness, an aspect of her representation. This, as therapist 2 agreed, was another instance where supporting and challenging are hard to separate or distinguish, as also are behaviour and representation.

Therapist 2 found it hard to pinpoint musical features, but strongly identified with my (presumed) feeling of wishing Aprille to continue her movements. Therapist 1 cited the

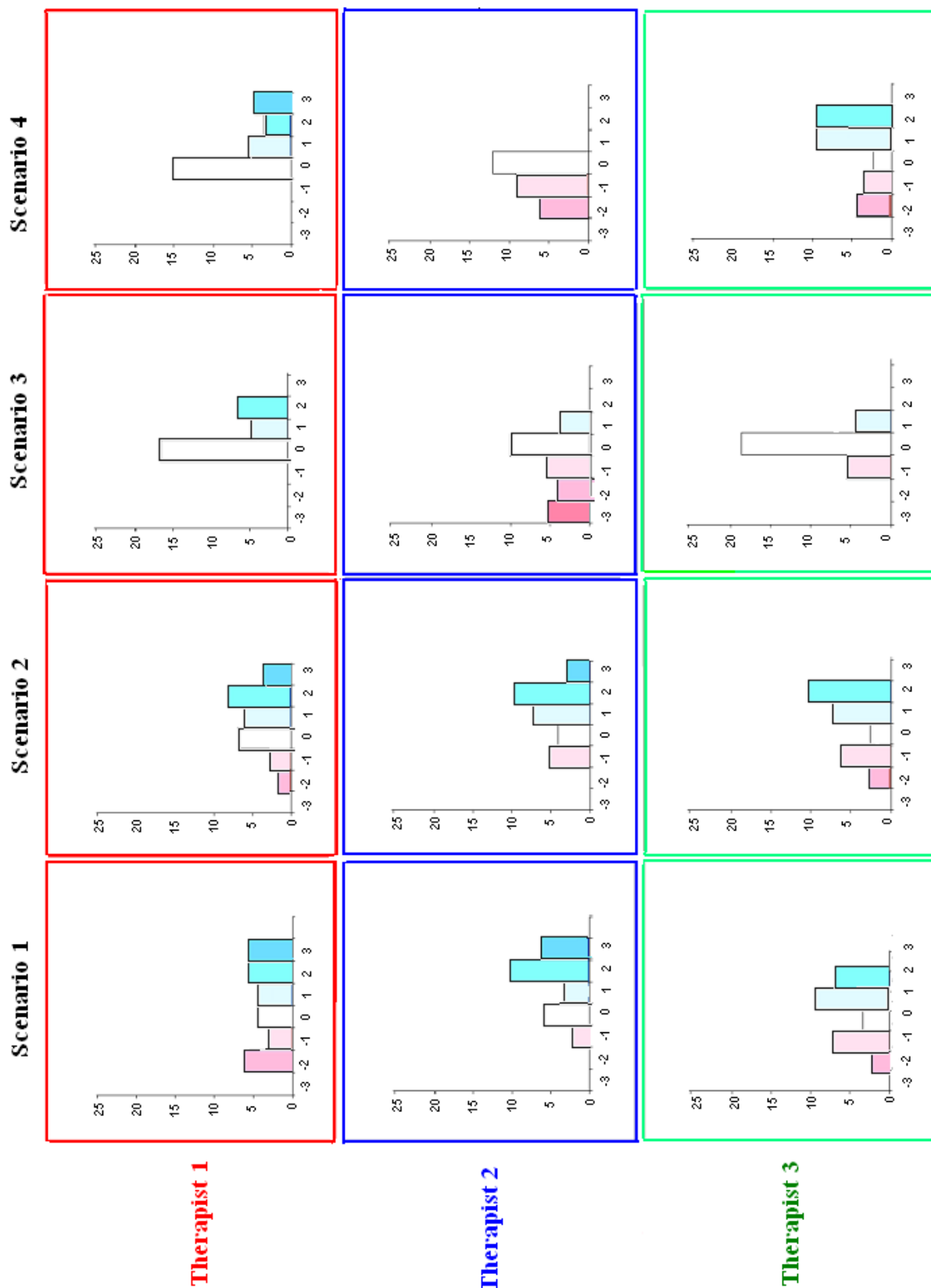


Figure 22: Frequency distribution of therapists' pointer positions, clip 6

allargando, and therapist 3 re-emphasised the importance of the long notes on the first syllable of “*mu-sic*” and a little later spoke of the music as becoming “smooth”, “warm”, “gentle” and “flowing”, thus offering Aprille an experience which contrasted with her

physical gaucheness. Therapist 1 said this created a kind of “emotional support” and therapist 2 commented that the words I sang acknowledged that Aprille, who did not “have many opportunities to be autonomous”, was controlling the music, which was “quite a big thing”. The whole discussion may be found at Appendix 14, lines 0319-0405.

10.2.6.5. Discussion topic 2 – supporting student behaviour (scenario 1)

Therapist 2 chose another point in clip 6 (p. 3/44) where (s)he had felt the improvised music supported the student’s behaviour (score: +3). Whilst repeatedly expressing uncertainty about why (s)he had made this judgment at the time, (s)he referred to the way my music, rather than accepting a pause in the student’s playing as the moment for a break, pressed ahead in such a way that the student was induced to continue playing: “your music kind of leaned slightly on”. (S)he seemed to be inferring my intention at that point by imagining what her/his own would have been in the situation. Therapist 3 noted that when the student paused before starting to play the ocean drum she looked at me (off camera to the left) and then back at the LSA as she started to play. Therapist 1 commented that the student started to move her whole body with the music, and agreed with therapist 3 that this indicated a new level of awareness as the student realized I was accompanying her. This was an interesting reference to the student’s representation (albeit of her relationship with me rather than with the LSA as partner). This discussion moved from impressionistic references to the music and inferences about the therapist’s thinking to observations about the student’s behaviour and underlying representation and her relation to the music. Therapist 1 felt the student was following the therapist (and thus being influenced) rather than vice versa. The whole discussion may be found at Appendix 14, lines 0086-0137.

10.2.6.6. Discussion topic 4 – supporting LSA representation (scenario 4)

Therapist 1 chose a point in clip 6 (p. 5/46) where (s)he had felt the improvised music had supported the LSA’s representation (score: +3). (S)he referred to my *piu mosso* following a *ritenuto* and to the LSA going with the music, mirroring the student’s movements and adding a drum beat. This was supportive to the student, who turned at that point to face the LSA and play to her. What therapist 1 actually described was a series of *behaviours* by the LSA, without spelling out that they were supportive because they sprang from a changed *representation* of the relationship. (S)he described the LSA tapping the conga as “quite subconscious”, “going with the music” but not conscious of being influenced by it.

Therapist 2 commented that “it can go from red to blue within a split second”, presumably referring to that very change in therapist 3’s response at this point (from score: +2 to –2),

because as soon as a change has been achieved the therapist supports it (9.4.1.4. and Appendix 13c: 090-093). The whole discussion is in Appendix 14, lines 0214-0244.

10.3. Music therapists' panel meeting - Results II: Overview

The purpose of the panel meeting was for therapists to compare, discuss, develop and justify their own selection from the responses they had made with the pointer in their individual meetings.

10.3.1. References to features of the improvised music

In what follows, “the improvised music” and “the music” should both, without distinction, be taken to refer to the music I improvised, and not to any musical responses of either student or LSA, unless stated otherwise. This is because in a consideration of the influence of the therapist’s music on their interaction, the student’s and the LSA’s music and other behaviours may be considered as responses rather than influences. In terms of the whole therapeutic process, this is of course a partial view (6.2.4.).

There were many comments in the panel meeting relating with greater or lesser precision to the music (including references to the words I sang, only one of which mentions musical features). Table 20 shows the musical elements cited in the comments (including those on sung words) made about each clip. Red, blue and green signify therapists 1, 2 and 3 respectively. Hollow circles represent references where one can deduce a musical reference although it was not specific. Table 21 shows the same data, but in the order of the discussion topics.

The categories in the leftmost column of Tables 20 and 21 were chosen last to classify the data obtained. Harmony was included although it was only once referred to by implication. Neither melody nor tonality is featured, since no therapist referred to either. It is interesting that therapist 2, who most often identified with me as therapist and spoke of what (s)he would have felt in my position, made no music-related points after her vague reference in 10.2.6.5. (discussion topic 2) until her/his more precise comments in 10.2.4.5. (discussion topic 8) and 10.2.5.4. (discussion topic 9) .

Although the music therapists, especially therapist 3, made more musical references than the LSAs, these were still fewer than might be expected, given that they knew the influence of the music was my main concern. There is no reason to think the panel unrepresentative of the profession. As it is unlikely that they considered the nature of the music therapist’s musical intervention unimportant, one might suppose that they simply

found describing music difficult. However, another explanation could be that, by force of habit, these clinicians' first concerns were the client and the assistant rather than the music.

Clip number / Musical element	2	3	4	5	6
Tempo	●		●		● ●
Rhythm	●				●
Timing		●		○	
Phrasing			● ●		●
Articulation				● ●	●
Texture		○ ●			
Harmony		○			○
Volume					○
Words	● ●	●			●

Key: ● = therapist 1, ● = therapist 2, ● = therapist 3. ● = explicit, ○ = implicit musical reference

Table 20: References to musical elements in the panel meeting, by clip number

Discussion topic / Musical element	1	2	3	4	5	6	7	8	9
Tempo	●	●		●	●	●			
Rhythm					●	●			
Timing			●						●
Phrasing	●	●						●	
Articulation						●			● ●
Texture			○ ●						
Harmony			○			○			
Volume						○			
Words			● ●			●	● ●		

Table 21: References to musical elements in the panel meeting, by discussion topic

10.3.2. Observed or inferred responses attributed to the influence of the music

Approaching the issue of musical influences from the opposite side by looking at evidence that an influence was exerted or intended, we see that a number of comments in the panel meeting suggest the therapists had made their continuous responses entirely on the basis of their perception of the student-LSA interaction. Tables 22 and 23 show that they mentioned instances of both support and challenge for scenarios 1,3 and 4, but only of challenge for scenario 2 (the student's representation). Obtaining a balanced coverage had been the object of my selection of nine points from the twelve the therapists offered.

Clip number Musical element	2	3	4	5	6
1: SB support			●		●
1: SB challenge	●				
2: SR support					
2: SR challenge					●
3: LB support		●			
3: LB challenge	●		●		
4: LR support					●
4: LR challenge				●	

Table 22: References to influences detected by the panel, by clip number

Discussion topic Scenario	1	2	3	4	5	6	7	8	9
1: SB support	●	●							
1: SB challenge					●				
2: SR support									
2: SR challenge						●			
3: LB support			●						
3: LB challenge							●	●	
4: LR support				●					
4: LR challenge									●

Table 23: References to influences detected by the panel, by discussion topic

10.3.3. Associations between music and effects

Table 24 illustrates some of the ways the panel associated aspects of the improvised music with influences on the students and LSAs. Because I had not defined the task so as to remove its ambiguity (6.3.7.) it is not always clear from the complete panel transcript (Appendix 14) whether they were referring to the observed or the intended effect of the music. It is also very likely that therapists have sometimes credited my music with influences I had not intended.

	1: SB support	1: SB challenge	2: SR challenge	3: LB support	3: LB challenge	4: LR support	4: LR challenge
Tempo						Rit and piu mosso follow student and so does LSA	
Rhythm		.	Long notes				
Timing		Music accepts student's pause and resumption		Held chords gave space for LSA's action			Timing to support LSA makes her feel she is playing <u>with me</u> for student
Phrasing	Music "leaned ... on" to encourage student's playing				End of one phrase and start of another to encourage LSA to restart helping		
Articulation			Legato is smooth, warm, flowing This gives her emotional support				Accents match those of LSA
Texture				Arpeggiation gave space for LSA's action			
Words		Student looked at LSA because words said LSA looked at her	Words point out that student has autonomy		LSA looked at student because words suggested it was expected		

Table 24: Some associations made between influences and musical features

10.3.4. Summary musical influences mentioned in the panel discussion

- the musical features most often cited to support their judgments (Tables 20 and 21) concerned tempo, timing, phrasing, rhythm and articulation, as well as words sung by the therapist
- little was said about texture, with only one implied reference to harmony and none to melodic line, modulation or absolute dynamic level
- therapists chose for discussion, from the list of decision points suggested, judgments regarding all four scenarios (Tables 22 and 23). They found instances of support and challenge for each scenario except scenario 2, where only a judgment of challenge was mentioned. A tabulation of associations made between musical features and the effects attributed to them (Table 24) did not point to the existence of relationships systematic enough to have predictive value

10.4. Music therapists' panel meeting – Discussion

10.4.1. The panel's emphasis on temporally based musical elements

The bias in the panel's comments towards what might be called the temporal features of the music, noted at 10.3.1. and illustrated in Tables 20 and 21, may be explained in terms of Stern's (2010) concept of 'Forms of Vitality' – an ubiquitous dimension of experience which would suggest a universal human responsiveness to the dynamic, temporally based, aspects of experience, including musical experience. An earlier, less universal concept of 'vitality affects' (Stern, 1987) became the basis of Pavlicevic's (1997) concept of "dynamic form", and the related concept of 'affect attunement' (Stern, 1987), by which empathy is communicated, has been found useful by many music therapists, e.g. Trondalen and Skårderud (2007). Affect attunement using dynamic form is an instinctive process of the production and detection of temporal contours, and music therapists may be likely to focus on temporally based musical elements which they believe their clients are more likely to perceive in the same way as they themselves, rather than on elements such as harmony which may be assumed to require a sophisticated musical training and attentive, more analytical listening, for their full appreciation. Developmental disability accentuates the need to offer comprehensible musical stimuli (Dunachie, 1995, pp. 288-295) and the panel may therefore have hesitated to cite aspects of the music they believed the students less likely to perceive, despite being aware of them themselves.

In considering the effects of music in therapy, the typical vocabulary of 'Forms of Vitality' 'dynamic form' and 'affect attunement' provides a ready source of metaphor with which to bridge the conceptual gap between talking about features of the music and about the

feelings and actions of the participants, precisely because the amodal nature of these concepts already bridges this gap in practice. This enables temporally based features of music to be discussed metaphorically without recourse to specifically musical terminology. Speaking about harmony, counterpoint, modulation or even melody, by contrast, is barely possible without using technical musical language.

10.4.2. Inferring representations by using concordant countertransference

In asking therapists to consider representations, which can only be inferred, I did not expect them simply to apply psychodynamic theories to make inferences from what could be observed. I hoped, rather, they still might experience, as therapist-observers, a ‘concordant’ (Bruscia, 1998b, p. 59) or ‘empathic’ (Priestley, 1994, pp. 87-92) countertransference, which they could use as a window on the students’ and LSAs’ representations, despite not having been present in the sessions.

I also wonder if my music, if it expressed my countertransference as the therapist in the triadic relationship, might influence the therapist-observers’ countertransference feelings. However, this may be a circular argument. It is being suggested that the music both induces the therapists to attribute certain representations to the students and LSAs and also has played a part in inducing those same representations in the students and LSAs. This means that the therapist-observers are induced to intuit the students’ and LSAs’ representations in the same way as I had intuited them while improvising and thus to conclude that my improvisation was appropriate.

The above comments do not assume that I must have brought my countertransference into conscious awareness at the time. Streeter (1999) shows how countertransference may sometimes only be detected by the therapist after the event, when analysing the music she has improvised. Pedersen’s (2007) phenomenological study of the countertransference reactions of four experienced music therapists in mental health found that there was often a “moment” when countertransference feelings which had developed unconsciously over an extended period became conscious and could be identified as embodied in the therapist’s improvisation.

In my clinical work with the learning-disabled students, the analysis and use of countertransference feelings was by no means central to my practice. Whilst I had countertransference reactions I seldom became fully aware of them during the sessions. Like Streeter (ibid) I can find evidence of these feelings that were not evident to me at the time when reviewing my improvised music. I detect both empathic and complementary

countertransference (Priestley, 1994, pp. 87-92) – empathic when my music resonates with how the student or the LSA might be feeling, and complementary when I accept a role (e.g. carer, playmate) that I feel I am being assigned. Whether or not I recognised my countertransference at the time, my expectation was that the therapists might be able, as I am, to detect it when listening to the music I had played, which they were hearing for the third time when judging the student’s representation, and for the fifth time when judging the LSA’s representation.

It may seem unreasonable to expect the therapists to infer the students’ and LSA’s mental processes in this circuitous manner from my music. Indeed, the students’ and LSAs’ music would be the more direct and reliable indicator, were there not generally so much less of it. My music, though not without the occasional expectant silence, is virtually continuous, functioning (from my point of view) sometimes as a stimulus, sometimes as a framework, sometimes as a commentary, and also (according to some LSAs’ comments) as a background. It is also more emotionally explicit, and requires less decoding by the listener than the usually more fragmentary music of the students and LSAs. I anticipated that this would make it easy for therapists to attend to my music. Although they were free, in the panel meeting, to speak of the students’ and LSAs’ music, they tended to focus more on other aspects of their behaviour as being more expressive of their relationship.

There is occasionally evidence to suggest that, by thus focusing on my music, the therapists might have allowed countertransference-type feelings to inform their judgments of the students’ and LSAs’ psychic processes, for example in therapist 3’s description of the music in discussion topic 6 (10.2.6.4) which echoed my own feelings about this passage. Although these comments refer to what therapist 3 said the music *expressed*, it is possible that the feelings mentioned were actually *evoked* (Sloboda and Juslin, 2010, pp. 82-84) and experienced by therapist 3. (S)he certainly spoke of the music’s warmth and flowing nature as qualities the student would have experienced.

10.5. Music therapists’ panel meeting – Limitations

10.5.1. Therapists’ preparation for the panel meeting

In addition to further comments on the ambiguity in the support-change distinction, there were several references in the panel meeting to the difficulty, when confronted with the response sheets, of recalling why some of the continuous response judgments with the pointer had been made. Anticipating this, I had given therapists ample time to review the clips alongside their individual response sheets in order to select only those decision points

they felt most able to explain. This opportunity to prepare for the panel meeting does not seem to have been utilised as fully as it might, since all three therapists expressed confusion at times as to why they had made certain judgments, despite having been asked not to select judgments they did not feel confident of accounting for.

Therapist 2 felt that what (s)he heard was not conveyed by the score. Although the musical transcriptions had been checked for accuracy (9.3.4.) they probably contain detail which cannot be detected without the multiple hearings needed to make the transcriptions. Such detail is arguably redundant if the object of transcription is to represent what the student, the LSA and even the music therapists viewing the clip are likely to have *heard*. Modifying one's original judgments on seeing the musical score, which Therapist 3 suggested could happen, may therefore be a mistake, if it implies attaching more weight to the printed page than to the aural trace, as though the student or LSA might have heard detail which the qualified music therapist somehow missed. However, as it is possible that the student or LSA might have responded behaviourally or emotionally to detail they did not consciously hear, such detail should be retained in the transcription.

It must be conceded that more thorough preparation prior to the panel meeting would have taken far more than the half hour I suggested the therapists should spend on it. Also, if they had felt compelled to formulate and feel confident in explaining their response at every decision point selected, they might then have approached the discussion with fully formed views and supporting arguments, which could have led to more of a confrontation, instead of the free and open exploration that actually occurred.

There were some interesting observations on the difficulty of establishing causality, such as that if the therapist's music and the LSA responded independently to an aspect of student behaviour, it might appear, incorrectly, that the music had influenced the LSA when in fact the student had done so. It was also noted that sometimes there is a change in behaviour when there is no obvious change in the music. It was important to acknowledge such difficulties that the therapists had faced in making their judgments.

10.5.2. The focus on specific moments in clips

How a musical moment is perceived depends strongly on context. Music therapists had made their continuous responses in the broader context of the whole clips. The requirement to select, in preparation for the panel meeting, decision points to become discussion topics (10.1.3.) might have struck them as a request to take a microanalytical stance (Wigram and Wosch, 2007). If so, their difficulty in accounting for their judgments

at specific points might have reflected doubts as to whether they could make precise enough comments on musical events thus divorced from their essential context. However, I did not instruct them to limit their discussion to the moments immediately around their chosen decision points, and sometimes therapists talked about the wider context of a clip.

10.5.3. Considering influences on participants separately, as four scenarios

(The following remarks apply to the continuous response process of individual therapists as well as to the panel discussion.) My research question concerned student-LSA interaction, but interaction is somewhat of an abstraction, depending as it does on the individual contributions of those interacting, and having no existence independently of these. These individual contributions are interpersonal processes, in that each is addressing and responding to the other, thus co-creating a shared experience. However the two participants undergo and enact two distinct interpersonal processes. Only by changes and developments in the enactments of these processes in behaviour can the interaction change and develop (6.5.2.). This is recognized by Stern (1998) when he speaks of the “port of entry” for an intervention, from whence changes spread through the whole system because of the mutual interconnectedness of its elements, but only through the perception of enactments, not some telepathic sharing of representations.

It is possible that if the music therapy panel had been asked simply to consider effects on LSA-student interactions they could have found the task more familiar and natural, and thus easier to perform. They could still have commented on the music’s effects on either partner as these affected the development of their interaction. It might then have been possible to analyse their comments retrospectively in terms of the four scenarios. The main difference would have been that they would have been free to focus only on the most significant influence(s) of the music at any one point instead of having to assess the contribution of each scenario throughout each clip. This would have come much closer to my initial quest to find the most salient scenario, before the more complex methodology was developed. Therapists might even have commented on simultaneous influences of the same music on separate scenarios, which they were perhaps discouraged from doing by the requirement to consider scenarios separately. This could have thrown light on the correlations discovered between pairs of scenarios (9.2.10.).

10.5.4. Possible order effects

The clips were presented in random order so that each time a clip was viewed it was preceded by a clip other than the clip which had preceded it on the previous viewing. In

addition, different random orders of presentation were used for each therapist. There was thus no likelihood of a systematic order effect as between clips. An order effect on the judgment of successive scenarios was however unavoidable because the order in which the scenarios were considered was the same for all therapists and all clips. As therapists moved from considering student behaviour, through student representation and LSA behaviour to LSA representation, they grew more familiar with the clips and could therefore have felt more confident with the pointer. This could have improved the accuracy with which they represented their felt responses, but they might also have been hindered by accumulating 'baggage' as they remembered or tried to remember their previous response to a clip. They were told it was not necessary to relate their judgment of a later scenario to that of an earlier one, but therapist 3 did comment that (s)he could not remember her/his previous response, implying that perhaps there ought in theory to be a correlation between judgments on different scenarios. This was in fact the therapist whose responses to separate scenarios over the clips as a whole were most closely related (Figure 16).

10.5.5. My contribution to the panel meeting discussion

From an analysis (Appendix 15) of my verbal interventions, including casual remarks by which I might have influenced the panel members, it appears I may occasionally have tried to steer the panel to a particular conclusion or shown pleasure when a comment coincided with my own views. I occasionally challenged panel members' perceptions of the order of musical or behavioural events, or inadvertently quoted remarks by the LSAs which could have influenced the panel's judgments. Given that I had deliberately gathered data independently from LSAs and therapists, the latter should never have been made aware of the former's views. Even if therapists' felt perceptions were based on factually inaccurate observations or assumptions, I should not have challenged such misperceptions, which might have thrown light on their thought processes on a broader scale. It also happened that sometimes my attempts to reflect, check and summarise therapists' views resulted in my inadvertently elaborating them or even anticipating conclusions they might or might not have reached independently. The complete analysis of my interventions and their possible effects is given in Appendix 15, in which line numbers refer back to those in Appendix 14. From this I conclude that the cumulative effect of all the above imperfections was not significant.

10.5.6. Personal involvement of the therapist-researcher

Aigen (1995c, p.294) recommends including in qualitative research a full examination of the researcher's personal relationship to the material and his motives for researching it,

especially when researching his own work, where findings have implications for professional status and self-esteem and for the moral imperative to do the best for the client. Shortcomings in one's clinical work of which one has been aware, and which one has taken steps to eliminate, are not the problem. Where clients may be let down is by shortcomings of which one is unaware. If research reveals these, there could be a temptation to suppress publication of such findings or even deny them to oneself. Readers may judge how faithfully I have preserved the sense of the material analysed, as I have included the full transcripts of all interviews, checked for accuracy by the interviewees, in Appendices 13/1-3 and Appendix 14. I have also had my musical transcription, my transcription of therapists' pointer movements and my time-sampling independently verified (9.3.4., 9.3.5.; 9.3.6.).

10.6. The status of the evidence

The panel discussion provides rich qualitative evidence strongly suggesting that this group of therapists with professional experience and expertise saw TSII as clinically effective, despite encountering it as a distinct concept (if not as a phenomenon) for the first time, and despite witnessing only a small purposive sample. They were not given any account of the students' diagnoses, histories or clinical outcomes. They have validated the concept of TSII as a procedure relevant to the therapeutic process with this client group, and given a positive assessment of its effectiveness in the case of the selection of clips considered.

Such purely qualitative assessment has good precedents. Well established bodies of clinical theory, such as those of Creative Music Therapy or Analytical Music Therapy, are still after half a century based predominantly on clinical experience and opinion, albeit derived very broadly from many thousands of hours of carefully documented clinical work. There is only a much smaller and more circumscribed body of experimental work, for good reasons (5.7.1., 5.7.2.) What the music therapists have said about musical influences is necessarily ideographic, but the fact that it is sometimes ambiguous or even contradictory is part of its richness.

As TSII as a concept has not previously been discussed in the literature, a larger volume of accumulated clinical opinion will be needed to support its acceptance, and in this era of evidence based practice it should preferably be backed by extensive surveys and a battery of double-blind randomised controlled trials. Among these, as I suggest in Chapter 12, a comparison with 'standard treatment' will be required to establish it as an approved procedure.

Chapter 11: A first person view of the music of TSII

This chapter contains first person research, and was written after completing the four stages detailed in chapters 7-10 and with knowledge of the findings. These more personal reflections arise from my own professional understanding of musical and therapeutic processes, which do not necessarily depend on the findings and which occasionally include views and interpretations which conflict with those of my collaborators.

There are detailed discussions of each video clip, which include musical analyses and discussion of clinical thinking and sometimes of countertransference experiences. I deal with complete clips, considering episodes of high inter-rater agreement identified by visual inspection, the panel's discussion topics and finally the musical influences on the four scenarios in each clip, including clips 1 and 6a which the panel did not discuss.

11.1. First person research – Method

11.1.1. Plan of the discussion of each clip

I start by looking at each clip as a whole. I outline what can be seen on the video (which cannot for reasons of confidentiality be included in the thesis) and comment on features and characteristics of my music which I believe were therapeutically relevant. I summarise my clinical intentions, as far as I am able to recall and/or deduce them, and sometimes mention possible countertransference effects. Next (except for clip 6a) I focus on a moment where the composite response sheets indicate high inter-rater agreement between the music therapists, and I suggest musical features which may have led to this agreement. In doing this I sometimes pinpoint musical detail which may not have had a significant therapeutic influence but which may nevertheless have influenced therapists' continuous responses. Next (except for clip 6a, and also clip 1 which the panel did not discuss) I revisit the panel's discussion topics (Chapter 10) to add my own observations. Finally I suggest, with the aid of tables, which are the main musical features relevant to each of the four scenarios.

11.1.2. The effect of my privileged viewpoint

Having transcribed the clips from ear, I have gained a detailed musicological knowledge of my improvised music. This means I can analyse the 'neutral level' (Nattiez, 1990, p. 17) of the musical trace more easily than could be expected of the panel of music therapists. More importantly, as the person with first-hand knowledge, I can also write about the 'poietic level' – my intentions and the creative process. Because of the passage of time since the clips were recorded, this account has had to be reconstructed on the basis of familiarity with my own musical and therapeutic thought processes, whereas the panel could only make an educated guess. I cannot claim, however, to be any better placed than my collaborators to make a judgment on the 'esthetic level' of the students' and LSAs' perception of the music.

An additional function of my descriptive writing about the music is to supplement what my collaborators have said about its expressive qualities. I feel this is necessary because the sound recordings, which for ethical reasons could not be included in this thesis, embody expressive qualities which the transcriptions can only hint at. My remarks should however be read with caution. What music evokes or is perceived to express depends on the personality of the listener at least as much as on the objective characteristics of the music (Rentfrow and Macdonald, 2010), which means that in describing the recording of the

music with its accompanying video images I am only able to write of feelings and moods which I personally perceive the music as expressing, and in some cases what it evokes in me (Sloboda and Juslin, 2010, p. 82).

My situation, after more than three years have lapsed since the most recent clip was recorded, is quite unlike that of a music therapist routinely reviewing and reflecting on very recent work while it is still fresh in the memory. I am only occasionally able to recall what feelings I experienced at the time, although I can sometimes deduce them. However, with repeated viewings of the clips new feelings now grow and come into focus. These relate to the total event of student-LSA interaction and improvised music. If similar feelings were present when the work took place, they could be highly relevant to the therapy, like the countertransference as studied by Pedersen (2007). It is likely, however, that my feelings now differ from those I had at the time because they arise when viewing rather than when participating and are thus not constrained by the need to make and act upon clinical decisions in real time, and also because they arise when viewing the clips as part of a research study.

My remarks on the music cover more material because they take in whole clips, including moments the panel did not discuss because of the narrow focus imposed by the nine discussion topics. When examining the points the panel did discuss, some of the musical features I mention may have been noticed by the panel yet not commented upon, because they saw from the composite response sheets that they had not originally responded to them with the pointer. There is thus no implication that panel members failed to hear or to realise the significance of musical features which I mention but they did not.

11.1.3. Retrospective consideration of influences on the four scenarios

Before concluding the discussion of each clip, I analyse the music's contribution to the four scenarios, sometimes offering more than one interpretation. Rather than attempting to guess the continuous responses I would have made with the pointer if I were not already familiar with the clips, I present judgments made after a prolonged opportunity for reflection. Clearly the music therapists might have made different judgments from those they made with the pointer if they had had this same opportunity to reflect at leisure. In particular, I suspect they would have made far fewer changes in pointer position during the course of a clip. When continuously responding it is difficult to commit to a stable long term view of the music's deeper function, as this would necessitate often keeping the pointer stationary when the music clearly changes. My views and theirs are thus the product of different cognitive processes.

11.1.4. Selection of episodes of highest inter-rater agreement

In preparation for the panel meeting, I had directed the therapists' attention to points where their individual continuous responses had diverged. When writing my own commentary, I hoped to gain different insights by studying passages where their responses had diverged least – that is, points of maximum inter-rater agreement. Ideally such points should be determined mathematically. Schubert (*ibid.*, p. 234) describes a procedure to calculate the 'second order standard deviation threshold' whereby 'vertical' standard deviations between responses at each time-sampling point are compared 'horizontally'. Variability between raters at each point in the time series is compared to the standard deviation of all such measures of variability and the points ranked to decide where variability is lowest, thus indicating the strongest consensus. Unfortunately the calculations involved in this method require a much larger number of respondents than the three used in this study. Simple visual inspection to identify passages with the greatest homogeneity of colour coding was the easiest alternative. Several such passages were identified where inter-rater agreement between therapists' judgments appears to have been high.

11.2. First person view – Characteristics of individual clips

In selecting the video clips (8.1.1., 8.4.1.) I looked for instances of TSII that were strongly contrasted in character, and reflected the differing disabilities and clinical needs of the clients. Tiffany (clip 1) and Shaun (clip 4) are both keen to play instruments but unable to do so without hand-over-hand support from their LSAs. Their assisted playing may nevertheless be viewed as an interaction with the LSA, since in both cases the LSA's assistance is regulated by fluctuations in the students' muscle tone and attempts to move. Cameron (clip 3) is physically able to play instruments but seldom does so and his interaction with the LSA consists of joint clapping, in which again the LSA's contribution is responsive to that of the student. Hamid (clip 6a) plays independently but requires modelling and verbal and physical prompting from the LSA. Zeb (clip 5) is able and keen to play regardless of anyone else, but is drawn into a lively dialogue by the playing responses of the LSA. Anastasia (clip 2) and Aprille (clip 6) play entirely independently, and the interaction occurs between their playing and their LSAs' signs of appreciation and encouragement, rather like when a toddler makes forays of exploration from the secure base of the mother. The music I provide on the keyboard, and occasionally by singing, varies according to the needs of the students and LSAs, and is thus equally diverse.

11.2.1. Clip 1

11.2.1.1. The clip as a whole

I did not discover Tiffany's exact diagnosis. Her ill-co-ordinated and seemingly random movements resembled those of Rett syndrome and to some extent Huntingdon's disease in their pervasiveness, rather than those of athetoid cerebral palsy, but she was clearly keenly focused on trying to play the metallophone. Jean was trying to contain and direct Tiffany's movements in such a way that Tiffany might be able to feel responsible for the sounds which were sometimes produced from the instrument. (The score has a single metallophone stave for Tiffany and Jean because neither ever played alone.)

In a situation which could have been frustrating and sad for both of them, Tiffany and Jean seemed to have very healthy representations of their relationship, which I aimed to support. I therefore made my music as calm as possible, often to the point of blandness, rather than matching the chaotic character of Tiffany's movements. I tried to provide the sense, or perhaps the illusion, of coherence and containment by means of an accompaniment which, blended with Tiffany's part, would create a satisfying whole. I avoided music which might be perceived as cueing Tiffany to play at a certain moment or in a certain tempo, which she would have been unable to do. I tried to avoid drawing attention to myself and away from Jean with whom Tiffany was working so closely, although at one point it seemed appropriate to respond with a sung phrase to her vocalisation as she turned towards me and smiled.

If we accept that, as in film music (Cohen, 2010), music can affect people's moods without their focusing on or even being aware of it, then my improvised music may not merely have avoided hindering the LSA-student interaction, but may have facilitated it by evoking a calm and reassuring mood. This mood was created by playing almost exclusively on the "white" notes, matching the diatonic metallophone shared by Tiffany and Jean and using a similar tone colour and volume. I maintained a steady slow and unobtrusive underlying pulse and a consistent *legato*. I could not predict what notes Tiffany and Jean would play next, so my attempts to harmonise with them were entirely retrospective. I used occasional transient modulations which were quickly revoked (e.g. p. 7/8 bar 30; p. 8/9 bars 34 and 37) to create a slight forward impulse to the otherwise very static diatonic harmony. Apparent syncopations seen in the score (e.g. p. 6/7 bars 23, 24 and 26) result from transcribing in precise tempo music that had been played with a relaxed adherence to the pulse. The syncopations are not accented and create vagueness rather than excitement.

There may also have been an element of defensiveness in my chosen approach. Playing as though Tiffany's movements were gentle and measured, rather than chaotic, might have helped to protect me from feelings of helplessness and frustration. Her happy facial expressions, however, suggest that this approach helped her also. I was aware that her erratic movements had neurological origins, and were not a sign of conflict or anxiety. Nevertheless, if I had done anything to make her anxious, her movements might have become more chaotic.

11.2.1.2. A moment of high inter-rater agreement

In Figure 23, the red box shows a phase of high inter-rater agreement on the influence of the improvised music on scenario 2 (student representation). In the previous bar my chromatically rising bass creates a slight feeling of urging forward and gathering towards a mini-climax. At the start of the new bar Tiffany succeeds in sounding a strong G on the metallophone (circled in the score) after the two previous stick movements have strayed onto the wooden frame of the instrument. Jean's guidance of Tiffany is consistently gentle, and probably succeeded at this moment because Tiffany relaxed. Co-operation between LSA and student was facilitated by the student's feeling of security in her relationship with the LSA. This might be why therapist 2 judged the music as supporting Tiffany's representation rather than her behaviour.

11.2.1.3. Analysis in terms of the four scenarios

If I were completing a continuous response sheet after reflecting on the music, my responses for scenarios 2 and 4 would have been varying shades of blue, as I was entirely supportive of how I perceived Tiffany's and Jean's representations of their relationship as relaxed. For scenario 1 (student behaviour) I might have considered the red side of the dial, as my music contrasted with Tiffany's jerky movements, although sometimes sharing their randomness. Jean's movements had to be swift in order to contain Tiffany, so whilst I was satisfied she was doing the right things my music also contrasted in its calmness with her actual movements. Taking a literalist view one could regard this as challenging scenario 3 (LSA behaviour) but I think its ultimate effect was to support Jean's behaviour. These judgments are summarised in Table 25.

Clip 1, pp. 8-9.
Tiffany (student) + Jean (LSA)

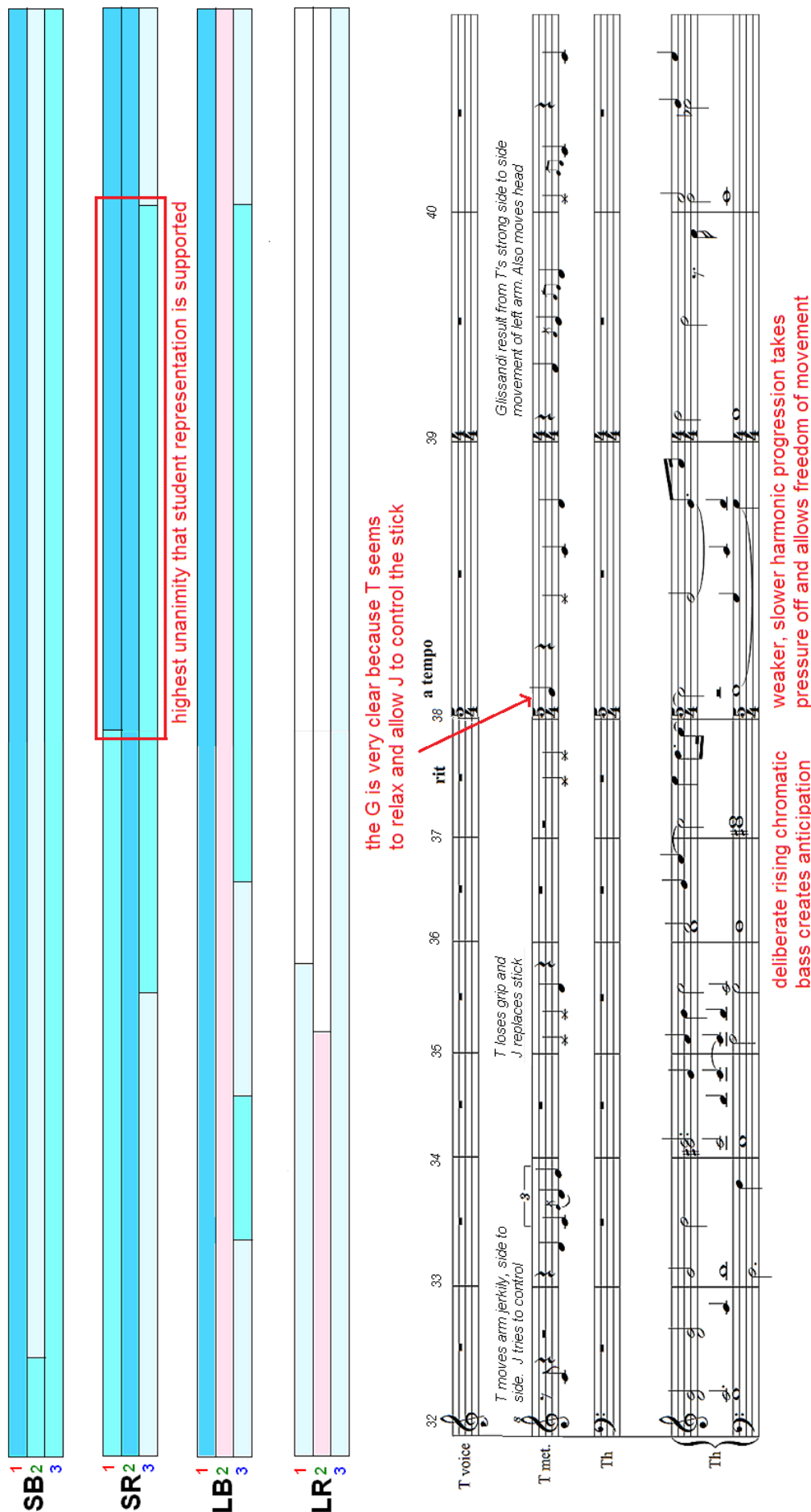


Figure 23: A moment of high inter-rater agreement between therapists, clip 1

CLIP 1	1: SB support	1: SB challenge	2: SR support	2: SR challenge	3: LB support	3: LB challenge	4: LR support	4: LR challenge
Tempo		Slow and measured	Slow and measured		Slow and measured			
Rhythm		Smooth and featureless	Smooth and featureless					
Timing	Synchronising where possible		Synchronising where possible		Synchronising where possible		Synchronising where possible	
Phrasing		Continuous	Continuous		Continuous		Continuous	
Articulation		Legato	Legato		Legato		Legato	
Texture	Blend in with Tiffany		Blend in with Tiffany		Blend in with Tiffany		Blend in with Tiffany	
Words			Reassuring					
Melody		Simple					Simple	
Harmony		95% diatonic					95% diatonic	
Tonality		Chromatics do not modulate					Chromatics do not modulate	

Table 25: Associations between influences and musical features, clip 1

11.2.2. Clip 2

12.2.2.1. The clip as a whole

Anastasia's cabassa tapping, although a familiar stereotypical behaviour, was an appropriate way to play this particular instrument, and she seemed pleased with what she was doing and anxious for Jenny to see it. At the time I was not confident that Jenny would see Anastasia's continuing to play in this way as positively as she later described it in her interview. I therefore tried to reflect the delicacy and subtle variations of her movements and to suggest, without imposing, some structure which might encourage variety and creativity. Despite wanting to help Jenny see Anastasia's playing in a positive light, my broken phrases and brief dissonances seem now to reflect a fear that Anastasia was uncertain of being heard. I then tried to reinforce her more vigorous style when she resumed playing.

The clip starts with the close of a chorus familiar to the group from regular use: "Let's all play together", ending with the words "listen to Anastasia". I move to the supertonic minor (not my usual key switch when introducing a solo) and briefly pause for Anastasia to respond. As she starts to tap the cabassa I lighten the texture to a *staccato* melody line of short phrases in a high register, supported by detached mostly inverted chords (p.2/13, bar 8). I insert the occasional sharpened 4th to add piquancy. I sing, "Are you listening? Are you listening to me?" largely independently of the keyboard line, and later, "Jenny's listening to Anastasia". Irregular phrases echo each other with some melodic variation but little development (pp. 3-4/14-15), eventually pausing with Anastasia on an 'Italian sixth' (p. 5/16, bar 33). When she resumes more vigorously and a little quicker, I move into a more regular common time, ending with a marked *ritardando* and finally a fuller and stronger 'German sixth') as I sing, on her behalf, "Please have a go!" During this final *ritardando* (p. 6/17, bar 42) the dissonant sharpened 4th sounding against the 5th increases the tension and may reflect a perception of Anastasia's possible frustration that her offer of the instrument had previously been rejected and her determination to offer it again. Actually after offering it she quickly withdrew it.

My musical invention flowed naturally, which, like my singing on her behalf, suggests I identified with Anastasia. My session notes record that she had waited until last for a turn to play solo. The slightly plaintive tone suggests I may have been aware of having made her wait a long time and concerned she could be feeling somewhat fragile, as I seem to have played with great respect for her delicate playing, avoiding modulation or any other

distraction and assiduously following her *rubato*. This suggests I was trying to protect her individuality and not take control.

11.2.2.2. A moment of high inter-rater agreement

In Figure 24 the red box shows a period of high inter-rater agreement on the influence of the improvised music, again on the student's representation (scenario 2). The music at this point has recently moved from C major to d minor, from 4/4 time to a somewhat slower 3/4 – 2/4, and from strong chordal playing and singing to a delicate keyboard texture. The therapists seem all to have viewed these strong contrasts as a challenge to Anastasia, but therapists 1 and 2 then acknowledge Anastasia's response, as her playing conforms to the new mood, by soon changing to judgments of neutral and mild support respectively. Significantly, these judgments refer to scenario 2, the student's representation, and therapist 3 also sees the LSA's representation as being challenged. Only therapist 2 feels the music mildly challenges the student's behaviour. Her/his view that it more strongly challenged the LSA's behaviour at this point might indicate that (s)he felt that it was inviting her to participate actively, by playing, rather than simply listening in what could appear a rather passive manner.

11.2.2.3. Panel discussions (10.2.2.4., 10.2.2.5.)

At bar 31 (p.4/15) where therapist 1 indicated that the improvised music strongly challenged Anastasia's behaviour (scenario 1) my improvised music does not change markedly, having remained in the same tonality, the same tempo apart from mild *rubato* and the same texture since bar 8. I had been singing about Jenny listening since bar 20, and the only small changes are the more stable tempo since bar 29 and the first mention of Anastasia's name since the introduction to her solo spot. There is however, a more noticeable change in Anastasia's playing just before therapist 1's judgment of challenge: she resumes, half way through bar 30, the regular tapping of her instrument, which had lapsed into occasional less rhythmic fragments since bar 23. This change in her playing, together with her intensified eye contact with Jenny, rather than any change in my music, may have influenced therapist 1's judgment.

Clip 2, pp. 1-2.
Anastasia (student) + Jenny(LSA)

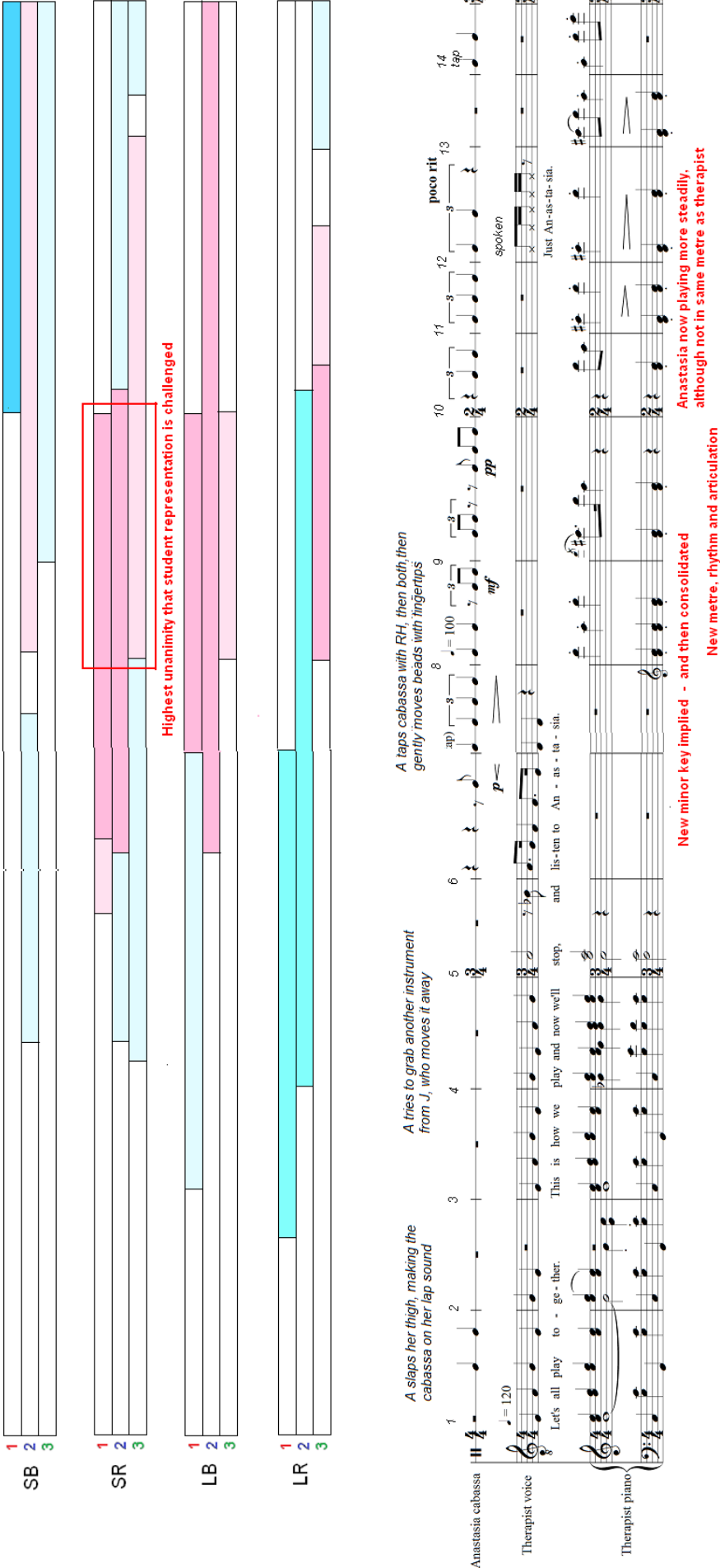


Figure 24: A moment of high inter-rater agreement between therapists, clip 2

At bar 22 (p. 3/14) therapist 2 indicated that the improvised music strongly challenged Jenny's behaviour (scenario 3). This is the point where I first sing, in a questioning tone, with a *ritardando* and a downward octave leap for emphasis. These musical features are indeed rather striking and could sound like a challenge to the LSA. However, I believe I gave the words this forceful expression on behalf of Anastasia, who seemed anxious to hold Jenny's attention, with no intention of suggesting that Jenny was not listening.

11.2.2.4. Analysis in terms of the four scenarios

If I were completing a continuous response sheet, the first significant event in the music is the switch from the familiar ensemble song supporting group playing to an improvised, and therefore unfamiliar, accompaniment supporting Anastasia's playing. As a signal of the changed situation which would require changes in behaviour, I might therefore briefly record the music as challenging all four scenarios. In the improvised accompaniment starting at bar 8, I aimed to reflect both the formal and the expressive features of Anastasia's playing. For scenario 2, I would have judged the music unambiguously supportive of Anastasia's representation. For scenario 1, because my prime aim was to sustain and encourage her playing, I wonder whether my short balancing phrases, which constituted an attempt to organise and regularise her playing, should be recorded as a challenge.

Jenny was slightly distracted at first by another student, but I ignored this and therefore would probably have judged my influence on scenario 3 to be neutral. By reflecting Anastasia's playing I hoped to draw it to Jenny's attention, and was inviting her to perceive and appreciate its delicate quality. This could be considered a mild challenge under scenario 4, but only if I actually believed Jenny was not listening. Later, when I started to sing, I may have been uncertain how far Jenny was listening, and also how far Anastasia was aware she was listening. The singing might therefore be viewed as mildly challenging scenarios 2 and 4, as I tried to make both parties more aware of each other and of their communicative relationship as player and listener. When Jenny showed that she was indeed intently listening, I sang "Jenny's listening to Anastasia", intending to support both her behaviour (body language) and her representation – scenarios 3 and 4, and also to reassure Anastasia that Jenny really was listening. This could be seen as challenging her representation (scenario 2) if she was not aware of being listened to, but as supporting it if she was. In either case the same sung words would be clinically appropriate. This ambiguity highlights the difficulty of making these judgments without first analysing the clinical need and deciding the intervention required, as explained at 12.8.1.

My *ritardando* in bar 32 and silence in bars 33-34 acknowledged the intense shared eye-contact and could be seen as supporting Anastasia's and Jenny's representations (scenarios 2 and 4). My accompaniment in Anastasia's new livelier tempo supports her behaviour (scenario 1) as do subsequent pauses and *rubati*. My spoken comment at bar 37 and my sung comment at bar 43, both on Anastasia's behalf, are also supportive of her communicative behaviour. These judgments are summarised in Table 26.

CLIP 2	1: SB support	1: SB challenge	2: SR support	2: SR challenge	3: LB support	3: LB challenge	4: LR support	4: LR challenge
Tempo and metre	Picking up her change (bar 35)	Into 3/4 (bar 6)		Into 3/4 (bar 6)		Into 3/4 (bar 6)		Into 3/4 (bar 6)
Rhythm	Picks up A's rate of finger movement						Picks up A's rate of finger movement	
Timing	Rubato when needed to synchronise							
Phrasing		Short phrases to organise						
Articulation	Detached						Detached	
Texture	Thin, light						Thin, light	
Words	Reflecting her question		Reassuring		Confirming J is listening			
Melody			Repetition and G# clash reflect A's impatience for J to take kabasa					
Harmony			Italian 6th for questioning, German for challenge					
Tonality		Supertonic minor switch (bar 6)		Supertonic minor switch (bar 6)		Supertonic minor switch (bar 6)		Supertonic minor switch (bar 6)

Table 26: Associations between influences and musical features, clip 2

11.2.3. Clip 3

11.2.3.1. The clip as a whole

Cameron had a history, not confined to music therapy, of examining objects but not using them constructively, and of meeting many adult advances with laughter. The dreamy quality of the opening music, with short, quiet keyboard phrases over an implied dominant pedal was intended to mirror Cameron's relaxed attitude, whilst I waited for an opportunity to prod him into activity. "Pick it up" was sung in a gentle, questioning manner. When he continued to finger the cabassa in an absent-minded way, I introduced some chromaticism and two flamboyant arpeggio flourishes (p. 2/19 - 3/20, bars 4-6) without straying far from the tonality. At this point it is clear I had little idea how to proceed, but when I played a trill to increase the tension Cameron seemed to come to life and turned towards Kate. The long drawn out II-V⁷ progression (p.3/21, bars 7-9) allowed time for him to take Kate's hands.

I established a regular tempo and sang repeatedly "We can clap" and later "Help Kate clap", expanding the upward leap on each repetition and accompanying in rather square chords based on the chord sequence V-I. I echoed Cameron's laughs, which were exactly in quavers, vocally and on the keyboard. After a pause I resumed with a similar melodic outline, shifted forward relative to the metre, converting a *bourrée* (p. 4/22) to a *polka* (p. 5/23) and slightly expanding the chord sequence to I-V-V-I. Apart from *rubato* and two long pauses to keep time with Cameron, this music was square, conventional and jolly.

"We can clap" was sung on behalf of both student and LSA to emphasise their joint action, and "help Kate clap" suggested that Cameron was leading, thus partly colluding with his fantasy of being in control but expressing this as help rather than compulsion. I chose not to acknowledge verbally that he was also sometimes resisting and delaying claps, disguising this fact by pausing to wait for him but then emphasising the feeling of suspense by extending the voiced consonant "l" in "clap" (p.5/22 – 6/23, bars 20-21). My musical echoes of Cameron's laughter signalled that I shared his delight and the four-square chords and simple progressions helped regularise the shared clapping and reflect the participants' jolly mood. This unusually successful session followed many in which Cameron had been extremely difficult to involve in any musical activity. (It may not have been coincidence that a series of different LSAs had been sent with him.)

Thinking of possible countertransference reactions, the extravagance and incongruity of my arpeggiated flourishes and briefly chromatic harmony may indicate that I was feeling

frustrated and trying to sustain my own interest with little expectation of a response from Cameron. The jolly ‘sing-along’ atmosphere of the music for the clapping, especially the polka variant, seem to reflect in their untypically flippant style my relief together with a sense of euphoria approaching disbelief that something so constructive was at last happening, but this does not detract from their positive effect of confirming to Cameron that we were enjoying what he was doing.

The clapping music, despite *rubato* to accommodate Cameron’s delays, provided a stable metrical framework to help Cameron and Kate co-ordinate their movements, mainly by way of its effect on Kate’s behaviour. Paradoxically, because the occasional marked *rubato* is required, there must be a stable and regular underlying framework in the form of symmetrical and predictable balancing phrases, both to ensure that order survives despite disturbances and also to exploit the tension the *rubato* creates as the framework is stretched but not broken. This tension when *rubato* includes tempo bending is more noticeable to the listener than the melodic *rubato* against a steady accompaniment found in jazz ballad singing and reportedly in Chopin’s playing.

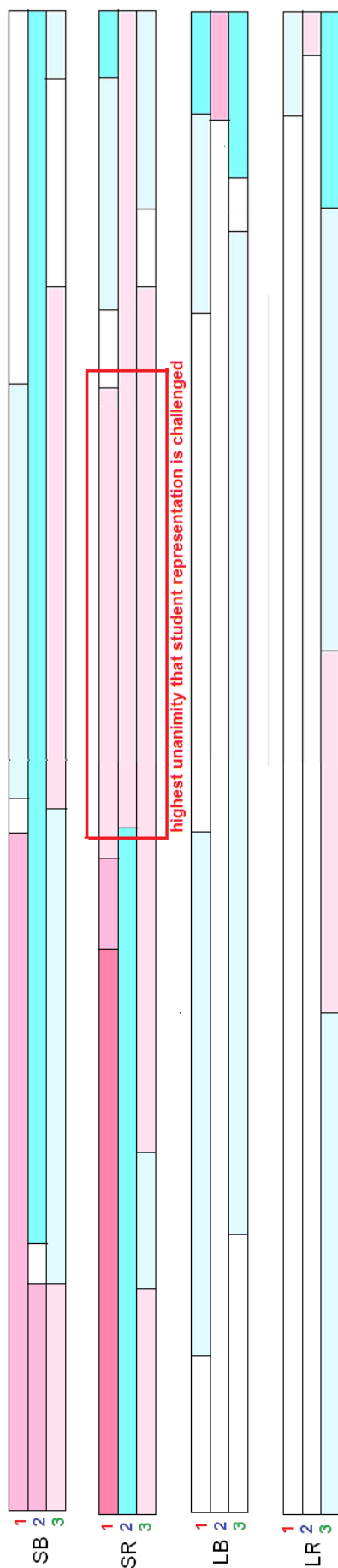
11.2.3.2. A moment of high inter-rater agreement

In Figure 25 the red box shows a period of high inter-rater agreement on the influence of the improvised music, again on the student’s representation (scenario 2). All three therapists see the music as mildly challenging, and I tend to agree with them. Whilst the impressionistic harmony and slackening tempo reflect Cameron’s apparently half-hearted interest in his instrument, the flamboyant flourish (though perhaps self-indulgent) suggests I am trying to ignite his latent energy, as shortly afterwards happens. I do not know whether I sensed what was to come, or whether my music triggered Cameron’s behaviour.

11.2.3.3. Panel discussion (10.2.3.4.)

At bar 8 (p. 3/20) therapist 3 indicated that the improvised music strongly supported Kate’s behaviour (scenario 3). I entirely agree with the therapists’ views (10.2.3.4.) and would merely add that what may sound now like a generous provision of space probably felt to me at the time quite a tense moment as I struggled to keep in contact with Cameron, using a *ritardando*, an extended trill and a delayed and very slow *arpeggio*, which revived the fading sound of the supertonic chord to delay further its progression to the dominant 7th. I was attempting to make the unpredictable sound inevitable, and from therapist 3’s remarks it seems I succeeded.

Clip 3, pp. 2-3
Cameron (student) + Kate (LSA)



Adagio a tempo rit Adagio

co-operates and raises her right hand to clap

looks up to his right towards K

takes K's left hand with his right

claps K's hands

Oh we can

hesitant, fragmentary phrases, rather contradicted by the arpeggio flourish

pause, then previous phrase repeated in sequence but now with chromaticism and ritardando, ending in trill

Figure 25: A moment of high inter-rater agreement between therapists, clip 3

11.2.3.4. Analysis in terms of the four scenarios

If I were completing a continuous response sheet I would consider the whole section before the clapping as supportive of the LSA (scenarios 3 and 4) and mildly challenging of the student. I knew Cameron could be put off by a more direct and forceful approach. Despite the incongruity of the flourishes in bars 5 and 6, they may have been the first step to his subsequent transformation. They would therefore be seen as mildly challenging his behaviour (scenario 1) and having no effect either way on the LSA.

The timing of the joint clapping is not really so much under Cameron's control as he imagines, but it is clear that between them they co-operate with me in developing a structured musical experience, full of anticipation, tension and resolution. I supplied a framework which I frequently paused and stretched to accommodate Cameron's delays, and I see my role as supportive of all four scenarios. This was a creative moment, which I did all I could to sustain. The clip has two contrasting sections, divided at the point the clapping starts, so I have summed up my judgments in two separate tables (27 and 28).

CLIP 3 bars 1 - 9	1: SB support	1: SB challenge	2: SR support	2: SR challenge	3: LB support	3: LB challenge	4: LR support	4: LR challenge
Tempo							Slow, flexible, relaxed	
Rhythm								
Timing					Waits for C to make contact			
Phrasing							Fragmented	
Articulation							Legato at first	
Texture		Flamboyant arpeggio and trill bars 5, 6		Flamboyant arpeggio and trill bars 5, 6			Very spare at first	
Words		Gently directive		Gently directive				
Melody								
Harmony			Warm, bars 3, 4, 7 - 9				Warm, bars 3, 4, 7 - 9	
Tonality			Leisurely modulations				Leisurely modulations	

Table 27: Associations between influences and musical features, clip 3, bars 1-9

CLIP 3 bar 10 - end	1: SB support	1: SB challenge	2: SR support	2: SR challenge	3: LB support	3: LB challenge	4: LR support	4: LR challenge
Tempo	Steady but rubato colla parte		Steady but rubato colla parte		Steady but rubato colla parte		Steady but rubato colla parte	
Rhythm	Simple, clear, repetitive				Simple, clear, repetitive			
Timing	Waits for C's responses				Waits for C to make contact			
Phrasing	Symmetrical, predictable							
Articulation	Mixture of staccato and tenuto accents				Mixture of staccato and tenuto accents			
Texture	Chordal							
Words	Confirming, encouraging		Confirming, encouraging		Confirming, encouraging		Confirming, encouraging	
Melody	Sequentially rising bars 10 - 12, 16 - 18		Sequentially rising bars 10 - 12, 16 - 18					
Harmony			Simple diatonic					
Tonality			Confined to I, V, V7, V9					

Table 28: Associations between influences and musical features, clip 3, bars 10-38

11.2.4. Clip 4

11.2.4.1. The clip as a whole

Shaun had extremely feeble and slow motor responses. I shared Gina's wish that he should be enabled to play spontaneously, whilst knowing this was physically very difficult for him and therefore rarely achieved. I therefore combined regular, predictable, balancing phrases and stable harmony to give confidence, variety in other musical elements to sustain interest and stimulate a response, and extreme flexibility to synchronise with whatever Gina and Shaun did. The music was directed at student and LSA equally and also occasionally took account of some of the musical contributions of other students, at first calming with a *ritardando* an enthusiastic response from Zeb (p. 5/31, bars 20 – 24) so that it did not overwhelm Shaun's music, then later accepting and celebrating Tony and Zeb's concerted attempt to spur the music on (p. 6/32, bar 32 – 8/34, bar 40), much to Shaun's delight.

The frequent tempo variations were intended to accommodate Shaun's varying responses without introducing a feeling of insecurity, and the music had a consistently sunny disposition reflecting Shaun's positive mood, achieved by staying firmly in D major and only using basic chord sequences, initially I II⁷b V⁷ I and then simply V⁷ I, many times over. Variety was obtained through changes of volume, tempo, register, chord voicing, rhythm, articulation and melodic line. Gina nevertheless suggested that Shaun would have liked more frequent tempo and dynamic changes like those between bars 32 and 40.

Shaun was highly dependent upon Gina in his playing. Because Gina was showing great sensitivity to the smallest signals from Shaun, rather as in Music and Attuned Movement (4.6), I felt confident the tempo changes in his playing, apart from the one extreme *accelerando*, were of his own making, and merely facilitated by Gina. It was therefore not appropriate for me to exert much influence on Gina to control the tempo. I merely provided a flexible framework to hold the music so that it would not seem to break up whenever Shaun stopped playing.

11.2.4.2. A moment of high inter-rater agreement

In the red box in Figure 26, all three therapists see the music as challenging Shaun. This is the climax of a long *accelerando* and *crescendo*, and most of the therapists' judgements of scenarios 2, 3 and 4 at this point are that the music was challenging. The greatest agreement actually starts as I stop singing when the sequentially rising melody becomes too high to follow. This creates a sensation of 'taking off' which may have added to the

perceived challenge. As the music returns to its original tempo, a more moderate volume and lower pitch, therapists' judgments of challenge for scenario 1 quickly subside.

Therapists' contrasting views of scenario 4 at this point are interesting. Whereas therapists 2 and 3 see the vigorous music as challenging Gina, who had previously supported Shaun very gently and responsively, therapist 1 recognises that Gina has wholeheartedly embraced the musical excitement and therefore sees the music as supporting her representation.

11.2.4.3. Panel discussions (10.2.4.4. and 10.2.4.5.)

At bar 56 (p. 10/36) therapist 1 indicated that the improvised music strongly supported Shaun's behaviour (scenario 1). After agreeing (10.2.4.4.) that they had been mainly influenced by their interpretation of Shaun's behaviour, therapists eventually cited the tempo changes by which the music had remained in synchrony with Shaun's movements. However, this *rubato colla parte* had actually been a feature of the whole clip apart from the long *accelerando* when I had taken the lead.

Later the panel discussed bar 55 (also p.10/36) where therapist 2 had indicated that the music strongly challenged Gina's behaviour. His/her explanation was that by ending one phrase and starting another I had induced Gina to resume supporting Shaun. This is my own perception, although what therapist 2 describes happened in bar 53 rather than bar 55.

11.2.4.4. Analysis in terms of the four scenarios

If I were completing a continuous response sheet I would rate the keyboard music as supportive of the LSA's behaviour throughout apart from bars 30 – 33, where my singing and playing was urging her to support Shaun to join in the faster music initiated by his peers. As soon as she did so, I would revert to a judgment of support. Although Shaun's playing was dependent on Gina's support, I believe he did exert an influence by signals such as changes of muscle tone and incipient movements Gina could sense and amplify, as in Music and Attuned Movement (4.6.). These behaviours were supported by the fact that the keyboard music provided a continuous framework but also accommodated his tempo changes. I would therefore judge the music supportive also of scenarios 1 and 2, with the exception of bars 30 – 33, where the *accelerando* which I reinforce with music and words originates from the playing of other students, and challenges the previously steady tempo. Shaun can only keep up with them with strong control from Gina, which he accepts with delight. I entirely agree with therapist 2's view (10.2.4.5.) of the effect of closing one phrase and starting another, but I would regard this as part of the musical support, and not

as a challenge, as I can see no indication that Gina wished to stop supporting Shaun's playing and needed to be persuaded to continue.

These judgments are summarised in Table 29, which shows some similarities to Table 28 because the use of simple, regular but flexible forward-leaning phrases was appropriate for both Cameron and Shaun. The main difference was the emphasis on seamless continuity in Shaun's accompaniment. Although this could be seen as challenging both Shaun and Gina, since their playing was only intermittent, I felt that continuity of accompaniment was a way of supporting the playing which did occur.

Clip 4, pp. 7-8
Shaun (student) + Gina (LSA)

The figure displays four horizontal bars representing student behavior across four categories: SB, SR, LB, and LR. Each bar is divided into three segments, numbered 1, 2, and 3. The segments are color-coded: pink for the first segment, light blue for the second, and light green for the third. A red box highlights the first segment of the SB bar, with the text "highest unanimity student behaviour is challenged" written below it.

Below the bars is a musical score for Shaun and Gina. The score is written for two staves, with the key signature of one sharp (F#) and the time signature of 4/4. The score includes various musical notations, including notes, rests, and dynamic markings. The score is divided into two systems, with the first system ending at measure 35 and the second system starting at measure 36. The score includes the following annotations:

- Tony controls LSA's hand to hit drum
- Zeb hits cymbal with stick
- clicks sticks
- pushes LSA's hand away
- Shaun and Gina overshoot accelerando, then manage to stay with it, stopping after climax
- telling you it's fast-er now, they're tell-ing you it's fast-er now
- rit
- tempo primo
- mp
- climax of volume, tempo, pitch
- rapid calming
- singing stops as if left behind in the rush

Figure 26: A moment of high inter-rater agreement between therapists, clip 4

CLIP 4	1: SB support	1: SB challenge	2: SR support	2: SR challenge	3: LB support	3: LB challenge	4: LR support	4: LR challenge
Tempo	Steady but rubato colla parte		Steady but rubato colla parte		Steady but rubato colla parte		Steady but rubato colla parte	
Rhythm	Simple, clear, usually flowing							
Timing	Waits for S's responses				Synchronising with movement made with S			
Phrasing	Symmetrical, predictable, following on		Symmetrical, predictable,					
Articulation	Usually smooth, occasionally detached				Mixture of staccato and tenuto accents			
Texture	Chords or melody and accompaniment							
Words		Challenging, stimulating				Challenging, stimulating		
Melody			Varying register to maintain interest				Varying register to maintain interest	
Harmony			Simple diatonic					
Tonality			Confined to I, IV and VI					

Table 29: Associations between influences and musical features, clip 4

11.2.5. Clip 5

11.2.5.1. The clip as a whole

This is very short clip in which the partners engage in an active musical dialogue. This playing needed no prompting or stimulation, but did seem to require a structural framework to help the creative but chaotic dialogue to run more smoothly. I therefore abandoned mirroring Zeb and Dana's individual responses at bar 17 in favour of a clear framework of balancing phrases, with strong accents to try and establish the metre.

11.2.5.2. A moment of high inter-rater agreement

In the red box in Figure 27, all therapists saw my improvised music as strongly supporting the LSA's representation. This passage is the most forceful part of the clip, starting where the volume increases to *forte* and ending where the quaver 'rat-tat-tat' rhythm disappears and the music prepares for the final perfect cadence. It is interesting that on the previous hearing therapist 2 judged that Dana's behaviour was being strongly challenged in the self-same passage.

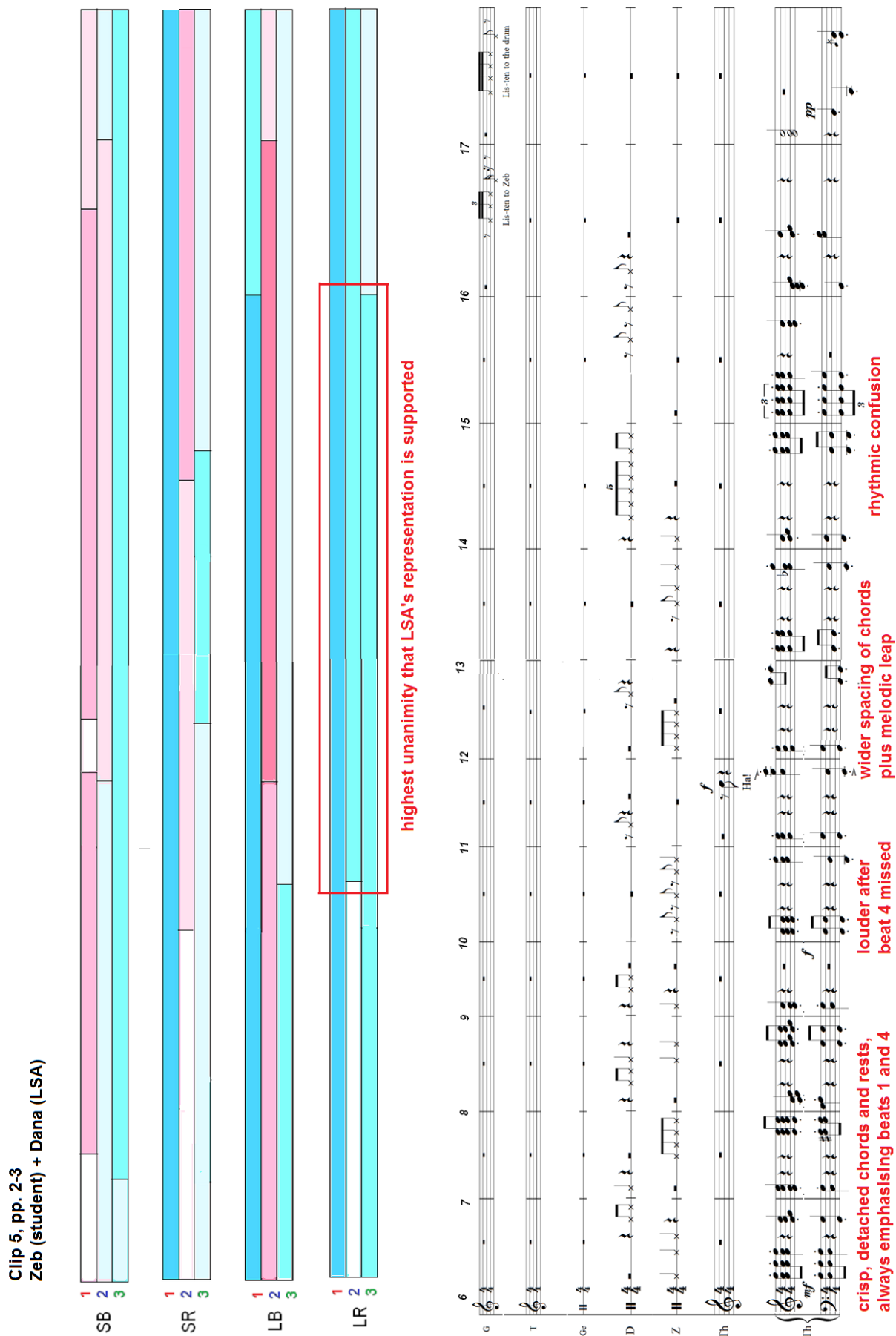


Figure 27: A moment of high inter-rater agreement between therapists, clip 5

11.2.5.3. Panel discussion (10.2.5.4.)

At bar 21 (p. 4/40) therapist 3 indicated that the improvised music challenged Dana's representation (scenario 4) and, on learning of the accidental reversal of staves, persisted in this verdict, finding a new explanation of exactly how the influence operated. I imagine that I wanted to move the rather hectic exchange, in which both players seemed to be trying to establish a competitive dialogue, towards a more co-operative interaction. The regular phrases with strong accents were primarily directed at Gina, whom I assumed more capable than Zeb of attending to the keyboard music as well as to her partner, but I feel I was targeting her behaviour more than her representation.

11.2.5.4. Analysis in terms of the four scenarios

If I were completing a continuous response sheet I would rate the keyboard music as supportive of both Zeb's and Dana's representation (scenarios 2 and 4) throughout. They were clearly interested and committed to their lively musical interaction, dialoguing and perhaps teasing and challenging, but not trying to dominate. From bar 17, I introduced a regular metric framework, with accents confined to strong beats, a sequential melody and a tonic pedal, in an attempt to regularise and co-ordinate both players' parts, so at that point scenarios 1 and 3 change from support to challenge. Although I believed Dana more likely than Zeb to be influenced by my music, I assumed Dana would be motivated in the same way as Zeb by the character and development of the music. I was therefore surprised to find that her remarks (10.2.5.2. and Appendix 7b/5) revealed a more detached, cognitive approach of experimenting to see what Zeb was able and willing to copy.

My judgments are summarised in Table 30.

CLIP 5	1: SB support	1: SB challenge	2: SR support	2: SR challenge	3: LB support	3: LB challenge	4: LR support	4: LR challenge
Tempo	Steady				Steady			
Rhythm	Crisp and decisive		Crisp and decisive		Crisp and decisive		Crisp and decisive	
Timing	Interlocking with Z and D (1st section)		Interlocking with Z and D (1st section)		Interlocking with Z and D (1st section)		Interlocking with Z and D (1st section)	
Phrasing	Fragmentary (1st section)	Regular and symmetrical (2nd section)			Fragmentary (1st section)	Regular and symmetrical (2nd section)		
Articulation	Detached and forceful	Accents only on beat 1 in 2nd section			Detached and forceful	Accents only on beat 1 in 2nd section		
Texture	Chords then melody and accompaniment				Chords then melody and accompaniment			
Words								
Melody		Sequential (2nd section)				Sequential (2nd section)		
Harmony		Tonic pedal 2nd section				Tonic pedal 2nd section		
Tonality								

Table 30: Associations between influences and musical features, clip 5

11.2.6a. Clip 6a

11.2.6a.1. The clip as a whole

This clip is not included in the detachable supplement because it was not shown to the main music therapy panel. The musical transcription may be found within Appendix 7d, in the file entitled LSA6a.pdf. Throughout this clip Terry was totally focused on Hamid. His instrument was a very quiet one, which obliged me to accompany equally quietly. The pilot panel felt unable to hear the keyboard clearly so I decided not to show the clip to the main panel. My music, though probably more audible to Hamid and Terry than it is on the video-recording, was so unobtrusive that they gave little visible sign of noticing it. Thus particular features of the music may be largely irrelevant and I suspect that similar interactions might have occurred with any suitably restrained keyboard support. A total absence of accompaniment, however, might have left the partners feeling too exposed.

My part contains many silences to enable Hamid's playing to be better heard and some longer ones when Terry is talking to encourage him. I play rather disjointed fragments of melody or accompaniment figure, but seldom both. I gradually introduce more formed phrases which have an air of 'whistling in the dark' and bear little relation to anything Hamid has played. By contrast, when he accidentally hits chromatic notes I quickly incorporate these in my part (bars 29-30, 32-33, 43-44) as though anxious to make them sound logical. This has the opposite effect of magnifying what would have been a negligible disturbance to the tonality. The steady tempo, derived from the tempo of Hamid's first group of beats, which I maintain in an attempt to give the music a sense of coherence, also reveals my concern that the music might disintegrate. I may have remembered how in his early weeks in the group Hamid could suddenly become intensely distressed and start to self-injure, although by this time the problem was behind him.

11.2.6a.2. Analysis in terms of the four scenarios

This clip was originally included to illustrate the strong bonding between this formerly anxious student and the LSA. The keyboard improvisation is probably the least effective example of TSII of the seven clips. In terms of the four scenarios little can be said with any confidence about the actual influence of the music. I shall instead mention what I believe was the clinical intention (often unrealised) of certain musical features. My keyboard part first imitates, in inversion, Terry's glissandi, to acknowledge them rather than to build a dialogue, thus supporting LSA behaviour (scenario 3). When Hamid plays independently I pick up the tempo of his quavers in bar 6 and use them in an intermittent

vamping accompaniment which re-iterates a dominant 7th chord as a way of building expectation. This could be seen as supporting Hamid's behaviour (scenario 1). There is no attempt to build a dialogue, simply to keep up the momentum in the hope that Hamid will play again.

From bar 17 to bar 21 there emerge scraps of melody and the occasional syncopation which, by slightly intensifying the stimulus, could be seen as urging Hamid to play, thus challenging his cautious behaviour (scenario 1). When he does play quaver phrases in bars 26 and 27, even echoing my preceding rhythm, I hold back, but as soon as he pauses I play what sounds like a balancing phrase. A closer imitation of what Hamid had played might have been more supportive.

At bars 35 to 37 Terry plays a slow descending scale. I play the first sustained tonic chord and then harmonise the scale in a strong gesture of support (scenario 3) for this new musical idea. At bar 40 when Terry has given Hamid the stick again I start slow sustained chords and manage to remain in a supportive role throughout his phrase (scenario 1). The most supportive event from Hamid's point of view is not any aspect of my music but Terry's hand over hand assistance which allows him to play the *glissando* he so enjoys. Terry also speaks more than would normally be helpful when trying to keep a focus on the music, but in this case it provides the support Hamid needs and the breaks in my accompaniment perhaps encourage this. Terry's experience in preceding sessions has shown her that I trust her to take responsibility for interacting with Hamid.

My judgments are summarised in Table 31.

CLIP 6a	1: SB support	1: SB challenge	2: SR support	2: SR challenge	3: LB support	3: LB challenge	4: LR support	4: LR challenge
Tempo	Steady, based on H's phrase		Steady		Imitating T's glissando			
Rhythm		Syncopated						
Timing	Leaving gaps for H to play				Leaving gaps for T to speak			
Phrasing								
Articulation		Staccati and accents						
Texture	Low volume to ensure H heard							
Words								
Melody						Model short phrases		
Harmony			Incorporates his accidental chromatics				Chordal harmonisation of T's scale	
Tonality			Stable				Stable	

Table 31: Associations between influences and musical features, clip 6a

11.2.6. Clip 6

11.2.6.1. The clip as a whole

The clip was taken from the first session of Aprille's third year of group music therapy. Her level of engagement with the instruments was untypically high, and continued to be so for much of the session. My music was unusually inventive and now appears to me so formally coherent as to give the illusion of having been pre-composed. I believe the same feeling of freshness after the summer break may have made both of us especially creative. The many variations in Aprille's playing (10.2.6.1.) were closely integrated with my improvised accompaniment, so that it is often impossible to tell who was following whom. I believe each of us was following the other, though with differing awareness of doing so. This flexible synchronisation, achieved with much *rubato* and frequent changes of tempo and texture, both sustained Aprille's various contrasting episodes of playing and promptly supported her each time she initiated a change.

The keyboard starts in D major, and at the end of bar 9 slips almost imperceptibly into the dominant, A major, where it remains. I feel this gives a feeling of lightness and freedom, as well as the warmth, tenderness and flowing quality mentioned by the panel. At the time I would certainly have felt elated at Aprille's positive response, but repeated reflective listening brings out deeper emotions of tenderness in me of which I was not conscious while actually engaged in the therapy. Some of the LSAs, especially Kate (clip 3) and Terry (clip 6a) as well as Lucy (clip 6) may have had similar experiences of stronger emotions when watching the clips than when they were participating in the therapy. Whilst attending to the students, their very supportive behaviour may have sprung from strong positive emotional responses, but these would have remained unexamined and perhaps barely conscious until they were given the opportunity and motivation to experience them more consciously when watching the clips.

I was somewhat taken aback during my reflections on this passage to realise that, having introduced Aprille's smooth playing by singing "... starting up the music" I then gave a strong musical and verbal hint (bb. 16-17, p. 4/45) that she should stop. This could be explained in several ways – as letting the aesthetic claims of completing a musical sentence trump Aprille's needs, as testing the extent of my musical control over Aprille, or as failing to believe in her ability or willingness to continue playing. If any such clinically unhelpful motive was present it did not prevail, and I was able to elide the end of the old sentence at bar 17 with the start of a new one as soon as I realised that Aprille was keen to continue.

At one point Aprille is playing quietly and the other student Mickey and his LSA are playing the wind-chimes. I sing about this, reflect it in a rising melodic line and briefly traverse the relative minor. I imagine I wished both to acknowledge Mickey's playing and to suggest to Aprille that another student wished to play with her. At the end of the clip, despite a pang of regret that an exceptional spell of musical engagement appeared to be ending, I allow the music to subside sequentially down to the relative minor so that as Aprille is eased back into her chair there is a feeling of relaxation rather than conflict.

11.2.6.2. A moment of high inter-rater agreement

In Figure 28, within the red box the therapists all indicate that the music strongly supports Aprille's playing (scenario 1). Therapist 1 concurs in the judgment of the other two when at bar 15 the previous two bars of lilting melody in a dotted rhythm start to repeat, creating a feeling of predictability and security. Therapist 2 breaks with the others at bar 17, perhaps because (s)he felt the new tempo and texture was a challenge to Aprille to change her playing, rather than because I sang the word "stop", which is barely audible.

Figure 28 also shows a passage where the therapists all indicate that the music has no effect on the LSA's behaviour.

Clip 6, pp. 3-4
 Aprille (student) + Lucy (LSA)

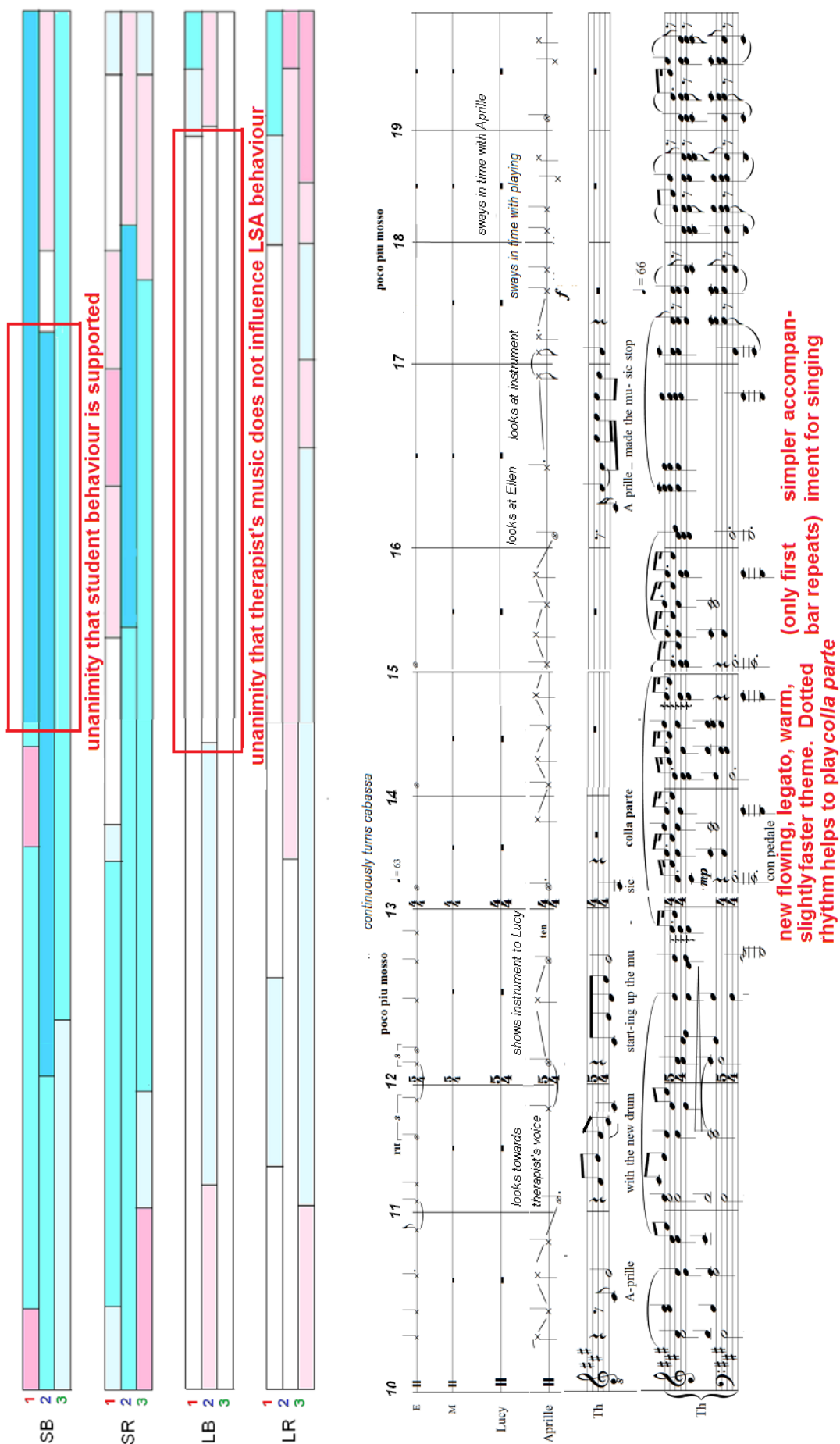


Figure 28: A moment of high inter-rater agreement between therapists, clip 6

This is a passage of particularly well-formed and effective playing by Aprille. Do the therapists agree that my music is highly supportive because when Aprille's playing is so definite it is easier to detect that the therapist, by synchronising and matching her swinging movement, is supporting her? Do they actually attribute her playing to the musical support? There are certainly several instances in the continuous response record where strong judgments about the music are more clearly linked to definite student (or LSA) behaviours than to distinctive features of the music. An example would be how, in the passage under discussion, the therapists detect no influence on the LSA's behaviour (scenario 3) until bar 19, when Lucy starts to sway with Aprille to the music, rather than two bars earlier when the music changes from melodic to chordal, sustained to segmented.

11.2.6.3. Panel discussions (10.2.6.4., 10.2.6.5., 10.2.6.6.)

At bar 9 (p. 2/50) therapist 3 indicated that the music challenged Aprille's representation (scenario 2). Several musical features were noted by panel members before therapist 3 expressed the view that the music provided Aprille with a bodily awareness her physical disability normally denied her: "you're more smooth and more gentle than she is able to be physically you're giving her that experience of being, you know sort of steady ...". This is among the ways Aigen (2005b, pp. 200 ff.) states that music can expand the experience of the physically disabled.

Watching and listening to this part of the clip, I believe the immediate trigger of my "smooth", "gentle", "flowing" music was imagining the sound-world the ocean drum is designed to create. Because Aprille's jerky movements meant this effect was only partly achieved, I tried in my music to elicit, in a gently directive fashion, smoother movement patterns, like a conductor tracing smooth curves with the baton to elicit more nuanced playing from an orchestra. Although Aprille's playing did not entirely lose its jerky quality, my keyboard music supplied the deficiency and some of her movements were, at least visually, relatively graceful. The psychological process of expanded self-experience which therapist 3 described was a by-product of my desire as a musician that we should create together the sort of music for which the ocean drum was designed.

At bar 12, (p.3/51) therapist 2 indicated that the music had supported Aprille's behaviour (scenario 1) by "lean[ing] slightly on" and starting a new musical idea rather than stopping when Aprille briefly stopped playing. What I see and hear at this point is more of a pause for reflection by Aprille, which I mirror, followed by a resumption of her playing, which I am able to predict and synchronise with. It is however probably true that if I had

interpreted her musical comma as a full stop Aprille would have been deprived of musical support and might not have continued playing.

At bar 23 (p.5/53) therapist 1 indicated with the pointer that the music had supported Lucy's representation, but in the panel meeting (s)he actually described the *piu mosso* section as supporting Aprille by eliciting behaviours such as tapping the conga from Lucy. Lucy did indeed pick up a new more upbeat mood from the keyboard, but the video shows that my playing changed initially in direct response to Aprille's sudden brisk shaking of the ocean drum, a new idea I hoped she would sustain. She only played briefly so I continued to play in support of Lucy. Aprille eventually looked at Lucy, saw her nodding and tapping her conga in time with my music, and resumed playing herself.

11.2.6.4. Analysis in terms of the four scenarios

This is probably the most varied and complex of the clips musically. It does not follow, however, that every change of direction in the improvised music represents a change in therapeutic intention. Aprille's playing on this occasion fluctuated in its degree of engagement and in its musical characteristics, as her attention fluctuated. At any moment she could have abandoned her instrument if something, or someone, in the room had diverted her attention. Her extended playing was probably sustained both by my music and by Lucy's visible interest, empathy and encouragement in equal measure.

Because I both supported Aprille's playing and accepted its intermittent nature and fluctuating commitment, I would rate my music as supportive of both her behaviour and her representation (scenarios 1 and 2) for most, if not all, of the clip. I was happy to support Lucy's responses to Aprille (scenario 3), and the well-regulated positive feelings towards her (scenario 4) from which they sprang. There are two ways of understanding how music could support Lucy's representation. On the one hand, a sensitive musical depiction of Aprille and her behaviour in a positive light would resemble, and thus reinforce, how Lucy already perceived and felt about her. On the other, by musically expressing my own feelings towards Aprille I could reinforce Lucy's, if they were similar. It depends whether beauty is in the object or in the eye of the beholder.

There are clear changes in my improvisation during the course of the clip which were intended to match Aprille's movements rather than the sounds she produced with the ocean drum. This is a form of affect attunement (Stern, 2004, p. 84; Trondalen and Skårderud, 2007) by which to demonstrate a sharing of feeling states. But as well as feeling supported and understood, Aprille could have had her normally fleeting attention held by the

contrasts in the music which highlighted and amplified the changes in her playing, thus encouraging her to keep experimenting with the instrument. My judgments are summarised in Table 32.

CLIP 6	1: SB support	1: SB challenge	2: SR support	2: SR challenge	3: LB support	3: LB challenge	4: LR support	4: LR challenge
Tempo	Following A's tempo changes							
Rhythm	Varied and flexible				bb. 17-19 for rocking, 22-26 for drum tap			
Timing	Synchronising							
Phrasing	Long arches		Fragmentary (1st section) then sustained					
Articulation	Mostly legato							
Texture			Varied, often warm with much pedal				Varied, often warm with much pedal	
Words			Describing A's actions					
Melody								
Harmony			Warm, often full				Warm, often full	
Tonality			D maj to A maj for happiness				D maj to A maj for happiness	

Table 32: Associations between influences and musical feature, clip 6

The foregoing comments on seven contrasting examples of TSII cannot easily be summarised. Chapter 12 will include some more general discussion of the findings chapters 8 -11 concerning the influence of improvised music on client-assistant interaction.

PART C: Chapter 12: Discussion and conclusions

In this final chapter I summarise the findings of the individual stages of the investigation into TSII, described in chapters 7 to 11, and discuss their implications. I reflect on the inter-relationship of the various findings and other aspects of the methodology. I outline indications for the use of TSII and give general guidance on the choice and adaptation of familiar improvisational techniques for the special dynamic of the triadic relationship in TSII. I place the new knowledge generated during the study in a wider context and consider some possible directions for further research.

12.1. Summary of main findings

12.1.1. The use of music therapy assistants for clients with profound disability

It was found that almost all UK music therapists working with clients having profound disability (48/49 of sample surveyed) used assistants in at least some of this work. Almost half (23/48) had used assistants in ways fitting the description ‘interaction partner’. The effectiveness of assistants depended on institutional factors, such as staff deployment, training and working conditions; on the roles therapists wished assistants to perform; and on the abilities and personal qualities of the assistants. Therapists would welcome more literature on the subject of assistants. The good response rate to a substantial survey suggests that the topic is one of general interest.

12.1.2. The attitudes and beliefs of assistants who have experienced TSII

The general themes emerging from the interviews with learning assistants were: that learning-disabled students have a right to self-expression and self-determination; that the students’ enjoyment and pride in achievement gives the assistant satisfaction; that student-assistant interaction is a multi-level mutual process; that the therapists’ improvised music offers the students stimulus, structure and opportunities for dialogue; and that music therapy in general is a valuable resource for the students. With one small exception, LSAs did not indicate that they themselves had been influenced by my improvised music. Watching the video was found interesting and instructive.

12.1.3. Music therapists’ quantitative continuous responses

The music therapists’ judgments of the influence of the therapist’s improvised music, considered according to a theoretical model of four scenarios (6.5.2., Table 2 and Appendix 11d), showed negligible inter-rater agreement. Visual inspection of a graphic presentation of overall trends suggested, however, that there was *intra*-rater agreement between perceptions of the influence of the music on various pairings of scenarios. Statistical analysis confirmed the existence of different patterns and degrees of such agreement for each of the three therapists (9.4.2., Table 17, Figure 16).

12.1.4. Music therapists’ qualitative clinical judgments

When discussing their earlier continuous responses in relation to musical transcriptions of the video clips, music therapists showed great interest in the behaviours and inferred mental processes of the students and LSAs. The musical features they found

therapeutically significant were mostly temporally based rather than pitch based. They were able to think in terms of the four scenarios, but did not find the requirement to separate supportive and challenging influences of the music either helpful or clinically valid. They agreed that therapeutic music should always be supportive, whether or not it also challenged the client to change in some way. The opportunity for such detailed clinical discussion supported by video was much appreciated by the therapists.

12.1.5. My own qualitative clinical judgments as therapist

As the therapist who carried out the clinical work investigated, I considered entire clips rather than just selected decision points. Using some actual recollection and much deduction from general familiarity with my own clinical thought processes, I analysed the improvised music, with which the transcription process had made me very familiar, citing a balanced mixture of time based and pitch based musical elements and linking these to clinical intentions in a narrative form of analysis.

12.2. Implications of the findings

12.2.1. The effective use of assistants through autonomous participation

The comments by both the LSAs and the music therapists' panel strongly suggest that TSII is an effective use of assistants which benefits the client. Whatever the precise effect of the improvised music, it is clear that the *format* of TSII is one which can develop assistants' understanding of clients' behaviours, mental processes and clinical needs and evoke from the assistants responses which are therapeutically appropriate. Assistants are enabled to offer quality interpersonal interaction to clients when it might be difficult for the therapist to do this himself.

Immersion in TSII emerges as an effective form of participatory training for assistants in how to interact with profoundly learning-disabled clients (2.2.3.). Assistants perceive TSII as collaborative rather than hierarchical, which helps in building an effective working alliance between therapist and assistants.

12.2.2. Possible wider applications of TSII

TSII has been presented as a procedure for use with people having profound developmental disability. It is likely to be effective internationally wherever the practice is to treat this client population in small groups. Where groups tend to be larger, it is less likely to be effective. As well as learning-disabled clients, people with profound acquired

disabilities such as advanced dementia, for whom carers are among their ‘significant others’, may also benefit from the use of TSII.

TSII is compatible with settings where the inclusion of able bodied group members with profoundly disabled clients is practised, and where music therapy sessions are held in an open community setting rather than a specialised therapy space. Its use presupposes that social and emotional rather behavioural aims are pursued.

12.2.3. Raising awareness and acceptance of TSII

There would be several benefits of raising awareness of TSII as a potential procedure for use with the aforementioned client groups. First, if any therapists who already use similar procedures find these challenged by colleagues or managers, they may wish to cite the present study, which describes, illustrates and justifies the procedure in some depth, and presents the views of both lay participants and professional observers on its perceived benefits. Secondly, therapists either needing or required to use assistants, but currently assuming that they can only be assigned less autonomous roles, might revise their views and expand their practice as a result of this study, to the benefit of both clients and assistants. Thirdly, managers contemplating commissioning music therapy may draw from this study the reassurance that assistants accustomed to a ‘hands-on’ interactive role with service users need not be demoted to being mere helpers in music therapy, but could participate actively and creatively through TSII.

12.2.4. TSII and contemporary trends in music therapy

A number of writers with philosophical, sociological and political interests in the development of music therapy (Ansdell and Pavlicevic, 2004; Stige et al., 2010; Stige and Aarø, 2012) have drawn attention to the potential of approaches grouped together under the title ‘Community Music Therapy’ (CoMT). Although advocates of CoMT acknowledge that many practices which fall within this broad description long predate the invention of the title, they have sometimes suggested that sectors of the UK profession are resisting the advance of CoMT practices, viewing them as contrary to the alleged ‘consensus model’ (Ansdell and Pavlicevic, *ibid.*) of music therapy within a private space, dominated by psychodynamic approaches. In developing TSII, I have certainly opened up music therapy sessions in a way which both relaxes the boundaries of confidentiality and limits the extent to which psychodynamic concerns can be permitted to lead the therapy, although they still inform it. If there is such a commitment to the ‘consensus model’, which many would question, I could be said to have strayed near its perimeter. The involvement of assistants

in TSII is a modest, and in no way radical, example of a community music therapy approach. Ruud (2010, p. 126) writes

“therapy is not only directed toward the individual, but often aimed at changing the systems that are part of the situation of the client.’

The clients’ ongoing relationships with non-professional assistants and carers which can prove so critical to their well-being (2.2.2., 2.2.7.) are surely part of their ‘situation’. If TSII enhances these relationships, there will be continuing benefits to clients beyond music therapy, including changed attitudes amongst those concerned with their care. Such generalisation partly depends on the active participation in music therapy of assistants who continue to be ‘significant others’ (Mead, 1934) who exert an influence in other aspects of clients’ lives.

Another more recent grouping of largely pre-existing tendencies into a defined philosophical and political stance is ‘Resource Based Music Therapy’ (Rolvsjord, 2010; Moessler et al., 2011). The central thrust of this approach is that music therapy should discover, develop and celebrate the resources already latent within, or available to, the client, taking these as its point of departure. It should not focus, as in the ‘medical model’ and also to an extent in some psychodynamic approaches, on disease, deficiency and need. The LSAs’ comments, which were triggered but not determined by viewing video clips of TSII, are clearly resource-oriented in outlook. They seek out and celebrate what the students *can* do and are not too concerned with what one might describe as their pathology. This attitude, which TSII helped to foster, is harder to sustain if therapy is pre-planned (Gardstrom, 2007) to address what have been diagnosed as the group members’ problems.

12.2.5. Implications of therapists’ focus on time based musical elements

The therapists’ bias towards citing temporally based elements of the improvised music (12.1.4.) seemed, until the likely reasons were examined (10.4.1.), to cast doubt on the therapeutic relevance of elements such as melody, harmony or modulation, which had always seemed to me to be important ingredients of my clinical improvisation. Melody and harmony are certainly considered in some detail by Wigram (2004) although never in isolation. However, temporal contours are an essential concept in Stern’s (2010) ‘forms of vitality’, widely adopted as an explanatory concept by music therapists, particularly when accounting for empathy between therapist and client (Pavlicevic, 1997; Trevarthen and Malloch, 2000; Trondalen and Skårderud, 2007). Familiarity with literature about the role of such temporally based features in music therapy may have been a factor guiding the

therapists in the present study towards making similar observations rather than venturing into the less explored territory of pitch based features.

Another interpretation of therapists' focus on temporal features, considered at 10.4.1., was that they were taking account of clients' capacity for active involvement in music making which, as Dunachie (1995) warns, is determined by their developmental age. However, the capacity for active participation in expressive music making is not a measure of the capacity to *respond* emotionally or behaviourally to music. Even neonates, with no communicative skills apart from a finite range of vocalisations, facial expressions, bodily reflexes and psychophysiological responses, appear able to recognise and respond to melodies and discriminate pitches and even consonance and dissonance (Trehub, Hannon and Schachner, 2010, p. 655). It is therefore both unnecessary and counterproductive to limit the complexity of music offered to the level at which the client can actively participate. If such a limit were imposed on what should be said to infants, language would not be acquired! If the panel's focus on temporal rather than pitched based features of the music arose from a concern for developmental appropriateness, it seems odd that the same focus is found in their comments on its influence on the LSAs.

Even if we were to conclude that temporally based musical elements are the most therapeutically relevant, this would not settle the question of whether other elements are simply redundant or whether, although secondary, they are necessary to flesh out the more potent elements. Rhythm, for example, may be the most obvious feature of a passage of improvisation, yet have its effect radically changed or diminished if melody and harmony are changed. A rhythmic pattern with an enlivening or calming influence may have that influence compromised by melody or harmony tending to promote the opposite effect.

12.3. Reflections on the methodology

Some of the methodology of this study is novel. Here we shall consider what it has contributed to the investigation. Section 12.7.3. will ask whether aspects of the methodology might have a wider application in studies of other topics within music therapy.

12.3.1. The relationships between the various stages of the research

This study pursued, in several linked but contrasting stages, the question of how the therapists' improvised music supports the interaction between assistant and client. These stages were the online survey, the analysis of LSAs' experience of participating in TSII, the analysis of the music therapists' continuous responses to video clips of TSII, their

subsequent panel discussion and finally my own first person research analysing the influence of the improvised music. Each stage had a distinct purpose and methodology, but all addressed the general research question, and therefore any inter-relations between the various findings are of interest.

12.3.1.1. The distinctiveness of ideographic findings in the wider context

The purpose of the survey (Chapter 7) was to explore the context of UK music therapy for the profoundly learning-disabled, within which TSII was developed. The survey questions were therefore broader in scope than the questions about specific clinical examples which the remaining stages of the study addressed. They did not enquire about the nature and purpose of the musical experiences offered, but focused mainly on management and group dynamic issues, thus providing a general context for the clinical work investigated in the succeeding stages, which adopted a primarily musical focus.

The survey found that, as well as a number of advantages, therapists experienced several problems using assistants, the worst of which could damage the therapeutic process. This threw into relief the evidence, from the LSA interviews in particular, that an approach such as TSII, which makes the fullest use of assistants' skills, can help to build a working relationship between assistant and therapist, with specific benefits for this client group and few of the difficulties the survey describes.

12.3.1.2. Inferring unconscious influences on LSAs from the findings

The LSAs' interviews provided a picture of how a particular collection of LSAs experienced TSII. They also revealed the attitudes and skills which helped to make their participation in TSII both effective and largely free of the problems reported by respondents to the survey. They also showed that the LSAs were unaware of receiving support or guidance from the therapist's improvised music. This is intriguing because both the music therapists' panel meeting and my first person research suggest that the LSAs' behaviour and thought processes were influenced by my improvised music. Did the LSAs' lack of awareness that the music had influenced them indicate an actual imperviousness to musical influences, or could they have been more susceptible to such influences precisely because they were not consciously aware of them? Furthermore, could this be a specific instance of a broader obliviousness of the therapist's guidance which actually made them more amenable than if they had been aware of it?

As well as claiming that TSII fostered positive skills and attitudes in the LSAs interviewed, it should be acknowledged that the skills and attitudes they brought with them on first

entering music therapy were more therapeutically helpful than is often the case with assistants new to the role, which in turn made TSII easier to establish and, once established, more effective.

12.3.1.3. Continuous responses as data for the panel discussion

The therapists' prior engagement in the continuous response process furnished material for the subsequent panel discussion. A design flaw (12.8.1.) in the continuous response methodology limited the useful information obtained from the continuous responses alone, but did not compromise the panel discussion. The individual interviews had given each therapist an intensive exposure to the clips. They had made an effort to apply an analytical process unfamiliar to them, which may have emphasised the kaleidoscopic and evanescent nature of the musical, psychological and interpersonal experiences of the therapy room. The composite response sheets which I compiled from the videos of their continuous responses allowed them to see how and when they had perceived changes in the influence of the music, and to make comparisons with their colleagues' responses.

12.3.1.4. Triangulation of LSAs' and music therapists' viewpoints

It was important that the LSAs and the music therapists should judge the clips independently. By arranging that during their respective stages of the investigation the LSAs and music therapists could not share their understanding, I ensured that any corroboration of findings was not brought about by either group adjusting its responses to match those of the other. This is why the quotations from the LSA interviews (Supplement and Appendix 7d/1-6) were not added to the composite response sheets until after the panel meeting. Music therapists were thus free to form and express opinions about an LSA's motivation or attitude which they might have modified if they had heard the LSA's own account.

The LSAs had been advised that the clips would be viewed by music therapists unknown to them, but did not seem to have found this inhibiting. Although they often offered explanations of their behaviour without prompting, this never felt like anxious self-justification. The LSAs' and the music therapists' views were thus formed, communicated to me and analysed independently, as is necessary if triangulation is intended to produce greater confidence in the findings (Robson, 2002, pp. 371-373).

The music therapists and LSAs tasks were very different. The music therapists' responses were constrained by a prescribed theoretical structure. Although their responses were informed by clinical understanding and experience, they had to be made continuously, with

no opportunity for reflection or revision until the next stage of the investigation. Any ‘demand effect’ of wishing to embrace the theoretical framework, master the practical task, or display therapeutic understanding, was barely able to intrude on their rapid and spontaneous responding. The LSAs, by contrast, were invited to comment freely in any way they chose upon the video clips, both between and during viewings, and were not required to adhere to any theoretical framework. Although they seemed to answer in a straightforward rather than a calculated way, they did have the opportunity during the course of their interviews to develop and qualify their answers and were perhaps, despite all precautions, subject to a degree of demand effect (6.4.3.).

12.3.2. The subjective nature of opinions expressed in the online survey

In an anonymous online survey, respondents’ experiences lie partly hidden behind how they have come to understand and account for them, and cannot be probed as they could in the face to face interviews recently conducted by Schmidt-Robyn (2008) and Munro (2011). These authors investigated the range of ways assistants may be used, attitudes towards them and their use, on the part of both therapists and the institutions in which they work, and the effects these attitudes can have on the therapeutic process and hence on outcomes for clients (6.1.). Both studies originated as student projects and neither gathered data from assistants themselves. Munro (ibid.) was able, by purposively selecting interviewees to give a representative coverage in terms of client group and therapists’ seniority and training background, to gain a very full and clear picture of therapists’ views despite the smallness of the sample, and to analyse them systematically.

Because the anonymous respondents to the online survey could not be questioned further about their answers there was a greater chance of individual perceptions subtly influencing even answers of a factual nature. If music therapists perceive assistants as a problem area, this can become a self-fulfilling prophecy, no matter how skilled and co-operative the assistants. Therapists’ attitudes to using assistants, rather than the quality of assistants, will determine whether they welcome or resist their presence.

12.3.3. The value of ideographic data

The data from learning support assistants and the music therapists’ panel have more depth and richness than the survey responses because they relate to concrete clinical examples. Both groups expressed themselves in detail, dealing with the material in what might be called its social aspects. The music therapists’ additional observations on musical processes were made in relation to full musical transcriptions. Such attention to detail is

only appropriate when discussing actual clinical work. Musical illustrations of imaginary clinical examples as used by Wigram (2004) aim for maximum generalisability. Whereas that text covers the clinical landscape comprehensively, the present study magnifies just one corner of it. This approach is not a systematic exploration from which to extract general principles; rather, the use of actual clinical examples gives a more direct insight into the therapeutic influences discussed.

12.3.4. The freedom afforded by a purely exploratory study

Because this study aimed to investigate how TSII worked in particular cases, rather than to evaluate it, there was no need to define a protocol setting out exactly how the therapist must behave in order for an excerpt to qualify as an instance of TSII. It was thus possible to discriminate and compare *between* contrasting examples of TSII, allowing therapists to propose and discuss a range of ways in which aspects of the music might have influenced the students and LSAs. Despite the requirement to consider the four scenarios, therapists were free to comment on any aspect of the music which they felt relevant to the therapeutic process. At this stage of exploring a novel topic it was very important not to prejudge what might prove relevant, hence there were no checklists of either musical features or response categories to consider and assess. The therapists used this freedom well and were not nervous of thinking aloud and voicing half-formed ideas for consideration and elaboration by colleagues.

A further advantage of the exploratory approach was flexibility as to how fine-grained the therapists' and my own judgments might be. Thus the commentary on the music in both Chapter 10 and Chapter 11 mentions features ranging from the instantaneous to those of a whole phrases or sections of music, whereas studies using video-recorded clinical data to test certain types of theoretical hypothesis (Holck, 2007; Van Colle, 2003) or evaluating psychophysiological responses by using a fine-grained stop-frame analysis (Hsu, 2013), may make it harder to consider temporally extended events and processes.

12.3.5. Studying therapeutic processes by means of the musical trace

Ansdell (1997) writes of a shift, within the 'New Musicology', away from the study of music as a product which people invent, document, communicate and physically realise and consume, and towards an understanding of 'music(k)ing' as a human activity deriving its *raison d'être* from its social embeddedness. This way of thinking has characterised many music therapists' understanding of the music therapy process. Embracing the concept of 'music(k)ing' need not entail abandoning the term 'music', however. The

physical phenomena such as dots on paper and the patterns of sound waves they denote are merely one element of the ‘trace’ (Bonde, 2005) left by the broader process of music(k)ing, but are still a legitimate object of study when investigating that broader process. The musical trace left by the therapist has been singled out for attention in the present study, but this has not led to a discussion dominated by musicological considerations. The music therapists (Chapter 10) and I (Chapter 11) made choices of which musical details to discuss on the basis of perceptions of their therapeutic intention and influence.

12.3.6. The focus on interaction

This study focuses on ‘interaction’ – the mutual reciprocal influence of behaviours and mental processes. The LSA and student behaviours may comprise gaze, facial expression, body language and purposeful action, as often as specifically musical responses. The clips only include two examples (5 and 6a) of a significant amount of independent playing by the LSA, which was not as rare as this in the group sessions generally. There is no example of singing by an LSA, which may seem surprising when in classroom contexts LSAs are used to singing greeting and action songs. The limited amount of vocalisation by students, however, was probably not a feature peculiar to music therapy.

‘Interaction’, included in both my title and my keywords, is an abstract construct (10.5.3.) invoked to focus attention on how the behaviours and inferred mental process of student and LSA which are directed towards each other are inter-related. Music therapists of all theoretical persuasions except perhaps the purely behavioural and neurophysiological devote much thought to understanding and developing interaction, and also to evaluating the client’s interactional skill and motivation as an indicator of both developmental level and mental health status. It should however be stressed that the present study does not set out to evaluate interaction as such, but to investigate the impact on interaction of the therapist’s improvised music.

12.3.7. Approaches to assessing relationship

Relationship is a construct closely related to interaction, although broader if it is understood to include internal processes. Relationship is assessed by the first and most widely used of the Nordoff Robbins scales (Nordoff and Robbins, 1977; 2007) entitled Client-Therapist Relationship in Musical Activity, and by some parts of Bruscia’s six Improvisation Assessment Profiles (IAPs) (Bruscia, 1987, pp. 401-496). Both assessment instruments are based on observations of musical responses which, although matched by assessors to carefully graded descriptors, ultimately depend on individual judgments.

Mahoney (2010) has demonstrated high inter-rater reliability for the first Nordoff-Robbins rating scale, but neither the Nordoff-Robbins scales nor the IAPs have been standardised. Moreau et al. (2010) describe a rating scale (MAKS) for measuring expression and communication in a client's solo improvisation and in improvisation with the therapist. The final form of the scale described achieved the stated aims of good reliability (within-rater consistency), objectivity (inter-rater agreement) and sensitivity to change in the responses observed. This third attribute suggests that the scale also has good validity in the sense that its ratings of musical characteristics do, as intended, discriminate the psychological characteristics of which the authors assumed they would be indicators. MAKS is thus an advance on previous rating scales, but is not standardised in the sense of giving the subject a score relative to a population. This is probably inevitable when assessing what happens between improvising client and improvising therapist, rather than the client's part alone.

Oldfield (2006b, pp. 123-158) found a way to circumvent the requirement for standardisation. The Music Therapy Diagnostic Assessment, used for the assessment of children on the autistic spectrum in terms of their communicative behaviour, was calibrated with the Autism Diagnostic Observation Schedule, a standardised scale from child psychiatry. Oldfield's finding of strong correlation between results on the two scales clearly demonstrates that the MTDA is effective at diagnosing autistic spectrum disorders. This was the main purpose of correlating the results of the two scales, but it also allowed Oldfield to avoid having to manualise the improvisatory element of the therapist's input, as would be necessary to create a standardised scale.

12.3.8. The role of the therapist's music in client-therapist interaction

The first two revised Nordoff Robbins scales classify responses in terms of inter-personal processes, using musical characteristics as data. However, there is a potential weak link in the evaluation process because the scales focus far more on the musical behaviour of the child than that of the therapist. This is surprising in view of Nordoff Robbins therapists' practice of including detailed information about the therapist's music when indexing sessions. If its formal and expressive characteristics are a key element in the child-therapist relationship, as the use of indexing suggests, the child-therapist relationship cannot be evaluated solely on the evidence of how the child's music relates to the therapist's, because different characteristics in the therapist's music will make it easier or harder for the child to relate. There should be a parallel assessment of how well the therapist's music relates to the child's. The IAPs (Bruscia, 1987) seem even more one-

sided. They are a systematic attempt to analyse how the client's music relates to the therapist's, which one would imagine requires an equal focus on the actual music of both parties. However, this is not achieved in any of the assessment scales described, because they propose no method of assessing what the therapist plays, almost as though this is immaterial.

There would seem to be a power imbalance inherent in any assessment of the quality of relationship which focuses attention on the client's contribution and leaves the therapist's unexamined. Streeter (1999) provides an example of how the reflective practitioner must analyse her own side of a musical interaction both musically and psychodynamically, and of how understanding of the inter-personal dynamic is not possible until this has been done. Such sharing of responsibility for how a relationship develops should not cease simply because the client rather than the therapist is the subject of a formal assessment.

Returning to the use of the musical trace in the present study, in which the attention given to the therapist's music might be considered excessive rather than deficient, it must be stressed that this music has always been viewed as a clinical response to the progress of the interaction between the LSA and the student and not, despite the detailed musical analysis, as art music in its own right.

12.3.9. How much should the musical trace be foregrounded?

Darnley-Smith (2013) in her doctoral thesis, published as the present study neared completion, highlights once again the need for a focus on the actual music in therapy:

“Whilst there is a constant search within music therapy for a theory that will make sense of music-making as a therapeutic activity, whether it be a form of music-centred or psychodynamic practice, it is striking from a consideration of the music therapy literature how little enquiry there is that is specifically concerned with the nature of the music itself.” (p.165)

However, in the minority of cases where serious and detailed consideration is given to the actual music the opposite problem can arise. Darnley-Smith (ibid.) refers to Colin Lee's belief that the analytical methods commonly applied to the scores of composed art music are equally applicable to transcriptions of music improvised in therapy, a belief first outlined in a journal article (Lee, 1989) written during work on his doctoral research project (Lee, 1992). In Darnley Smith's (ibid.) view,

“... it is not ultimately clear what musical insights are possible through this method [transcribing and analysing excerpts of the music as though it were

art music] beyond insights gained from description, such as literally being able to see the client's musical material in relation to the therapist's set out on paper. Indeed, this method can be seen as tending to foreground the musical object away from the context within which it has arisen." (p.174)

The present study does use musical transcriptions in which the relationships between the therapist's music and the interacting dyad's music and other behaviours can be seen, but this is done specifically to enable the panel of therapists to pinpoint and account for judgments they had first made in response to the video clips without the aid of transcriptions. Foregrounding the "musical object" has been avoided by always starting from the clinical judgment made at a particular moment, before any consideration of what aspect of the music could have influenced that judgment. Lee (1989) by contrast first carries out an intricate musical analysis and only then asks:

"Could we possibly extract specific components of the musical improvisation that influences (sic) and alters the state of the client?" (p.18)

Proceeding, as in the present study, backwards from observation and clinical judgment to the analysis of the associated music saved both me and the panel needless effort analysing aspects of the music of little relevance to its therapeutic meaning and influence. It was not of course possible to similarly abbreviate the labour of musical transcription, since scores of the complete clips had to be provided to enable the panel to pick out those aspects they thought relevant. The complete scores (Supplement) are also informative in showing the wider whole from which panel members extracted key moments and also, by means of the coloured strips, their continuous responses to the complete clips.

12.3.10. What type of analysis is appropriate for clinical music?

In his sequel to the article cited above, Lee (1990) concludes:

"A music therapist may have no wish to pose as a composer and vice versa, but if what both are creating can be shown to be subject to the same structural considerations and inner relationships, then such analytic insights as these [the preceding lengthy analysis] should be fundamental in the furtherance of music therapy." (p.11)

Darnley-Smith's (2013) concern is with the ontological basis of the distinction between the music of music therapy and non-therapy music. She shows that although formal similarities may sometimes exist between therapeutic improvisation and either non-therapeutic improvisation or composed art music, the music of music therapy is ultimately

defined by its therapeutic context and intention. As such it will require an analytical approach, even to the musical trace, defined by that therapeutic context and intention. This is what has been attempted in the present study by proceeding from therapeutic to musical observations. We have not been concerned with long-term formal characteristics or pitch relationships which an analysis of the score or repeated analytical listening might reveal, but which are unlikely to have been heard in the actual session.

Like Lee and a number of other music therapists, I am myself not only an improviser in non-therapy contexts but also a composer, and I strongly suspect this sometimes influences the style of my clinical improvisation. It has certainly influenced the way I have listened to the video clips in the present study, but I have endeavoured in Chapter 11 to confine my analytic remarks to aspects of the music which I consider clinically relevant.

12.3.11. The value of musical transcriptions to stimulate clinical discussion

The use of musical transcriptions is a resource whose use was until recently limited by the extremely time-consuming nature of transcription by ear, making it impracticable for day-to-day clinical practice, beyond the selective transcription of short motives in the Nordoff Robbins indexing process. With the enormous advances in information technology, Streeter (2010) has shown (5.5.2.) that there is a distinct possibility of transcriptions comparable to those in the present study being created by computers, and that many therapists would welcome this. I would suggest, however, that for the person making an aural transcription the intense repeated listening process leads to a deeper musicological understanding than could be gained by studying a ready-made score. Whether clinical, as opposed to musicological, understanding is enhanced by the labour of transcription is uncertain, and one can imagine that too single minded a concentration on getting the right dots on paper could prove a distraction from clinical thinking. There may therefore be a balance to be struck when deciding to what extent to rely on such technological transcription aids as become available.

It was noted (12.3.4.) that the panel's discussion of the musical transcriptions was free of constraints as to what was on or off limits, despite the overall structure provided by the selection of discussion topics so that the four scenarios would receive a balanced coverage. Complete musical transcriptions do not restrict clinical thought, and have the potential to draw attention to aspects of the music which might have had clinical relevance in the therapy room because they could at some level have been sensed by the participants.

12.3.12. The value of video-recordings

A crucial factor supporting the panel's discussion was the use of video. This ensured that detailed attention to the music was balanced by an equal concern with the behaviour and inferred mental processes of students and LSAs. There are of course many clinical situations, especially in the mental health field, where video-recording is not feasible. In these cases the best substitute might be to listen as soon as possible after the session to an audio recording (assuming one can be made) and to index all the behaviours one can remember, together with one's first reactions and thoughts about them, against times read off from the audio counter, prior to any manual or computerised musical transcription. These preliminary notes could be used to annotate the subsequent transcription with details of behaviour and reflections upon it.

12.3.13. Client participation in TSII and in this study

One way in which clients could be said to have participated in this research was through the thoughts, and sometimes words, attributed to them (8.2.1. and Appendices 7a/1-6 and 7b/1-6). Another was by the choices they made during the sessions. TSII was always offered rather than imposed. I might offer it both when an interaction with an LSA started spontaneously and when a student was given a 'solo spot' (1.1.8.). In the former case, either partner could have initiated the interaction, but I would not normally support an initiative from an LSA to which a student appeared unwilling to respond. In the latter case, again either partner could initiate an interaction with the other. Occasionally the student might at times address her/his playing or other responses directly to me, even though I was sitting at a distance behind a keyboard, and I would reciprocate such an overture (e.g. Clip 1, bars 27-29, Supplement p.7/8). If an interaction occurred with another student this would also be encouraged. In all these varied cases, the student would maintain control by choosing whether or not to interact, and with whom, and would be supported by the responsive, non-directive behaviour of the LSA and the therapist.

Client participation in the actual business of research was not possible because a historical archive was investigated retrospectively. Family members consented on students' behalf to the use of the video clips, an arrangement only permitted under IRAS guidelines when it can be shown that the participants would not be able to understand what they were being asked to consent to. Clients had no influence in designing or steering the investigation. However, the information provided as the basis for the consent signed on their behalf (Appendix 1) did set out the research design, which their proxies clearly found acceptable, and which I was then obliged to follow. No parent took up the offer of viewing the

relevant video clip before giving consent, which might have given the student a chance also to view it and potentially react unfavourably and be deemed to have refused consent.

12.4. Indications for the use of TSII

The clinical examples in this study have shown that TSII can be an appropriate and safe way of working. However, the study only investigated a particular set of circumstances where this was the case. It is the responsibility of the therapist to decide when TSII is or is not indicated, either at a particular moment in therapy, or as a procedure to be actively developed over an extended period, taking into account characteristics of the client(s), the assistant(s) and their own attitude. This attitude must include a sincere and confident commitment to involving and trusting LSAs, not a mere curiosity about whether TSII might ‘work’ (12.4.3.).

12.4.1. Client groups for whom TSII might be indicated

TSII was developed in work with clients whose limited communication skills, resulting from profound developmental disability, severely restricted their ability to interact creatively with communication-impaired peers, but who benefited developmentally from a group setting where they could observe and be observed by peers and share some other more structured and directed activities with them. Some of these clients had a degree of maladaptive secondary disability which, in a non-impaired person, might be described as having poor social skills and mild neurotic defences, but none had significant mental illness. TSII would not normally be suitable for clients with a dual diagnosis of mental illness in addition to learning disability, unless assistants had specific mental health training. Assistants without such training could be expected to fulfil only a limited care and containment role under professional oversight, which would be incompatible with the autonomous role they are expected to take in TSII.

Clients with autism, physical impairment and visual impairment would be suitable for TSII, but those with profound hearing loss might not be, because of the important role of improvised music played at a physical distance, which cannot easily be sensed through the body. TSII is most clearly indicated whenever the client is at a developmental stage such that the fostering of interaction within a secure attachment relationship is a priority, and when the assistant, rather than the therapist, is felt to be the appropriate person with whom to develop that interaction and relationship in music therapy. This could include clients with advanced dementia (12.2.2.). The lack of spoken language which characterised all the

clients featured in the present study will frequently, but need not necessarily, be an additional circumstance of relevance.

12.4.2. Qualities needed in assistants

To make an effective contribution to TSII, the assistant should be both familiar with the client and consistent in attendance at music therapy, so that patterns of interaction can be progressively developed. (S)he should be sympathetic to the aims of music therapy and happy to work under the direction and oversight of a professional music therapist.

Assistants need an open mind as to the potential of the clients, but should be under no delusion that miracle ‘cures’ are likely. They need to be confident in their innate skills, with an unsentimental but caring attitude to the clients, and the ability to manage their own emotional reactions rather than projecting them onto clients.

Although a considerable degree of autonomy is given to assistants in TSII, they do not need to have a developed theoretical understanding of music therapy or of music. Only average musical sensitivity is required, and musical training and even the ability to sing are optional. Doubts on the part of the therapist or the assistant about the latter’s musical competence should never rule out the use of TSII if it seems clinically appropriate.

12.4.3. The therapist’s attitude and inter-personal skills

I regarded my oversight of client-assistant interactions more as holding and caring than as direction and evaluation. This was conveyed to the assistants by a range of non-verbal means as well as through the actual music improvised. I knew that assistants might become anxious and either hyperactive or over-cautious if they felt their skills and competence were in doubt. This was an understanding derived from reflection on the reasons why some relationships with assistants in the past had been less successful. I tried to apply my knowledge of inter-personal dynamics, first developed with the aim of understanding the client-therapist relationship, to the assistant-therapist dynamic and the client-assistant dynamic also. I also took care never to allow the therapist-assistant relationship to become, or to be perceived as, one of therapist and client.

Allowing an assistant to develop a relationship with a client in her/his own way may sometimes result in musical initiatives by the assistant which the therapist finds inappropriate and unhelpful. However, I had learned that, if this should occur, direct intervention on the pretext of ‘preventing harm’ could be as damaging to my relationship with the assistant as direct intervention to prevent a client from playing inappropriately would be to my relationship with the client. I tried to model, in my response to the

assistant's behaviour (including her musical behaviour) the same acceptance and respect for all attempts to communicate which I wished her to show towards the client. An assistant, no less than a client, can be led by the therapist's music to a more communicative use of his/her own music (8.3.5.). Furthermore, an interaction developed from his/her own musical resources may feel more authentic to the client than one which seems unfamiliar and perhaps inauthentic because it is modelled on the therapist's mode of interacting.

12.5. What is new about the music of TSII?

TSII is a procedure which can be easily incorporated into improvisational music therapy. Its novelty, in relation to existing literature (which may not fully reflect the range of actual practice) lies in the whole-hearted involvement of non-professional assistants as interaction partners and the use of improvised music to develop their skills and actively support them in that role, instead of relying on the more usual prior training and systematic debriefing. The novelty thus lies in the purpose rather than in the nature of the improvised music. Learning to develop client-assistant interaction through TSII entails discovering how existing skills in clinical improvisation may be applied in new ways. There is no need to posit either new psychological mechanisms or learn new improvisatory techniques. I therefore offer some thoughts on ways in which the aims of the improvised music in TSII may influence the choice of techniques and the way they are used.

Descriptions of all the musical skills required to improvise for TSII may be found in existing publications (Bruscia, 1987; Wigram, 2004; Nordoff and Robbins, 2007; Lee and Houde, 2011). It is the purposes for which certain skills are deployed in TSII which is distinctive. One important feature of improvisation for TSII is abstinence from any technique which, in a particular context, will encourage a social interaction between client and therapist rather than between client and assistant. It is possible that the panel may have found it harder than they otherwise would have to describe my improvisation because it lacked the directness of address to the client with which they were more familiar and would have studied to achieve in their own clinical work.

12.5.1. Music addressing the client

Scenarios 1 and 2 employ music to influence the client, but the focus in TSII is on developing her/his relationship with the assistant and accordingly the use of music differs in several respects from that found in therapy where the client's relationship with the therapist is the focus. The therapist's intention is that his music is heard and responded to, but that it should not draw attention to itself or to him. To this end, frameworking

(Wigram, 2004, p. 118) may be used to ground, guide and stimulate the client's music, or indeed any other communicative client behaviour. Empathy and reflection (ibid. p. 89) may be used to unobtrusively support the client's representation of his relationship with the assistant, either allowing it to evolve spontaneously or subtly challenging it to change. 'Seductive' (p. 142) 'limbo' (p.144) and 'overlap' (p.154) transitions will be effective techniques to encourage change without disrupting the client-assistant interaction by too abrupt and ear-catching contrasts in the music.

Similar 'arm's length' techniques are also used in therapy involving only client and therapist, but in that case they are frequently a prelude to a more personal dialogue with the therapist when the client is ready for it, which is not the aim in TSII. The client offered TSII may, of course, spontaneously decide to interact with the therapist rather than the assistant. This could be a positive development, suggesting that the assistant's support is becoming less necessary. The resulting client-therapist interaction would then fall outside TSII as defined in this study, and is not seen in the seven video clips purposely selected to illustrate TSII, except perhaps fleetingly in clips 1 and 3.

12.5.2. Music addressing the assistant

Although the LSAs interviewed seemed unaware of being influenced by the therapist's music (8.2.2.4.), the therapists who watched the clips did not generally judge the music less influential on the assistant (scenarios 3 and 4) than on the client (scenarios 1 and 2). When addressing the assistant, frameworking and empathic improvisation and reflection may again be used, but there is less need to avoid definite contrasts, since it may be desirable to provide a strong cue to the LSA to make some change in her music or behaviour, and the LSA is less likely than the client to find this disruptive. However, although the therapist's music may suggest how it might be helpful for the assistant to behave towards the client or to think about her relationship with the client, it remains important for him to stay in the background socially. The aim is for the assistant to focus her actions, thoughts and feelings on the client and to become aware how she herself, rather than the therapist, is interacting with the client.

12.5.3. Music addressing both client and assistant simultaneously

In a sense the improvised music will always potentially influence both the client and the assistant, since both hear it, whether or not they listen to it with conscious attention. The therapist must never lose sight of this dual influence and become insensitive to the potential effect of his music on one partner when he addresses the other. However, the

dual influence may also be deliberately exploited in specific ways. For example, the music may stimulate, support and guide both sides of an actual client assistant interaction, musical or other, as it is occurring. The music may have superficial and underlying characteristics with different levels of complexity, such that the client responds to the surface, but the assistant responds also, or instead, to what lies beneath. The music may even embody contrasting or conflicting elements reflecting contrasts or conflicts between client and assistant, with the object of containing and acknowledging both and facilitating a reconciliation or compromise, although there are no clear examples of this in the video clips. Whether the therapist's music is addressed to the assistant or to both the client and the assistant, the musical and other communicative behaviours the assistant offers are given a higher profile and more autonomy than they would generally enjoy in work where the assistant's role is to support the relationship between client and therapist.

12.6. Limitation of the study as guidance for practising TSII

The advantages of studying specific ideographic data (12.3.3.) carry attendant risks. The data consist of responses to clinical work carried out by a single therapist, at a single location, under a single institutional regime. Although the clients featured were students with profound learning disability, they presented relatively mild behavioural challenges and few negative projections, partly because of the non-participation in the research of one of the three schools invited, which had sent more challenging students to music therapy. Although I believe TSII did prove effective at times in work with those more challenging students, this cannot be demonstrated by the present study.

This was not intended as an evaluative study (6.2.1.). Whilst it is gratifying that the clips were viewed by both the LSAs and the music therapists as effective interventions to support and develop interaction, we must exercise some caution in drawing general conclusions about the likely effectiveness of TSII when used by others, elsewhere, in other contexts and with contrasting client groups.

The online survey included a question about using assistants as interaction partners but not specifically about TSII. It is therefore not possible to say whether the approach is as novel as its absence from the literature might suggest. Indeed, it seems likely that when encountering similar clients and assistants in comparable situations and institutional contexts, some therapists with developmentally and/or psychoanalytically informed yet music-focused views similar to my own may have practised varieties of TSII. I emphasise the word 'varieties' so as to avoid implying that the way I have practised TSII will necessarily be the most appropriate way for others in all circumstances where TSII is

indicated. Rather than modelling practice on examples of specific clinical influences (11.2.1-6) it is preferable to consider the general points made in section 12.4.1-3, taking into account the particular situation in which it is proposed to use TSII.

Some practical guidance might be welcomed, however, and the most effective way to provide such guidance might be to start with Wigram's (2004) teaching scheme and add a small supplement to deal with the specific requirements of improvisation for TSII, as summarised in 12.5.1.-12.5.3. This would entail inventing examples of each therapeutic application discussed, and providing targeted exercises for practising specific skills. It would not be appropriate to include such guidelines in the present study, since to be comprehensive they should cover a wider range of clinical situations than are found in the video clips and thus could not be grounded in the available data.

Ruud (2010) reminds us that the outcome of musical analyses of improvisation in therapy cannot be a recipe book for music to produce specific effects:

“Given the case that we have selected some instances of music being influential upon the client in some way ... if our choice of departure is a notated transcription of the improvisation ... we can set about to analyse the music.

But what do we look for? Thematic unity, tempo changes, texture, patterns of dialogue, changes in complexity, melodic or thematic characteristics? I would guess that everything is legitimate ... A particular problem, however, seems more crucial to this kind of analysis than to the musicologist's concern: To what extent can we expect a correspondence to the music heard or notated and the experience as it occurred in the client?

... Is it possible to generalise anything about the effects of music beyond this particular situation?” (p. 85)

It should therefore be neither a surprise nor a disappointment that connections between musical features and detected or inferred influences found in the present study were too context-dependent to provide general guidelines. The confidence we can place in apparent causal relationships between musical features and therapeutic meanings and influences when non-verbal clients' experiences of therapy can only be inferred by others is inevitably lower than in studies such those of Lee (1996) or Aldridge and Aldridge (2008) where detailed musical analyses are complemented by the client's own verbal reflections.

12.7. New contributions to knowledge

12.7.1. The online survey

The survey of UK music therapists' experiences of working with music therapy assistants is a substantial contribution to knowledge of this neglected topic, but not comprehensive enough to serve as an audit of the current views, practices and working conditions of the UK profession. The surveys by Schmidt-Robyn (2008) and Munro (2011) draw on smaller numbers of responses, and that of Munro has not been published.

The findings of the survey should not surprise those with experience of the field. Insofar as the responses were broadly representative of therapists working in the area of profound learning disability, both those who did and those who did not respond will find in the analysis some of their own views and experiences reflected. However, because of the wide variety of sometimes opposing views expressed, they will also be made aware of experiences and views of fellow professionals which may surprise them if their own experience has been very different. The findings will be especially informative for those new to the field. It is for music therapists themselves to judge when it will or will not be helpful to share these findings with managers and budget holders.

12.7.2. The LSA interviews

The findings of the LSA interviews illustrate the belief systems and developed sensibilities which enabled a particular group of LSAs to work effectively as interaction partners in TSII. This ideographic picture of the views of LSAs selected for having contributed to effective examples of TSII reveals them as people of humanity and insight, who enjoyed their role as music therapy assistants and found it expanded their understanding of the students' capabilities. The lively naturalness of the interviews (Appendix 7a) and their detailed summaries (Appendix 7d) should stimulate music therapists to think about the experience of the assistants with whom they work, and provide encouragement to music therapists to experiment with TSII and to LSAs to participate in TSII with confidence. The dissemination of these findings might prompt others to explore this neglected topic and endorse or challenge the LSAs' accounts with evidence from other groups of assistants.

12.7.3. Novel methodology – registering and representing continuous responses

The continuous response methodology (9.1.6., 9.1.9.), provided the users' task is precisely defined (12.8.1., 12.8.2.), could have wider applications in both qualitative and quantitative investigations of continuous responses.

12.7.3.1. The mechanical response device.

A device consisting of a dial and pointer (Figures 2 and 3) was used in this study. Therapists operated it with ease whilst maintaining attention to the video screen. This use of a simple motor response to register a judgment evoked little or none of the distraction and possible anxiety that might be experienced with methods involving the fitting of electrodes, skin galvanometers and other physiological recording devices. Ease of use is perhaps not sufficient reason for choosing a mechanical method over computerised alternatives, but the method used here has the additional merit of ensuring that the viewer is not distracted from the screen. It would therefore be useful in any situation when subjects need to make a continuous response in terms of an ordinal scale while watching video of clinical work.

12.7.3.2. The graphic representation of responses

The effectiveness of the individual and composite response sheets (Figures 4 and 5) as a stimulus to the panel discussion suggests that even where a computerised system is preferred it should be programmed to generate equally visually striking and easily interpreted displays, rather than complex output reminiscent of a seismograph. This should not be difficult to achieve, once the need for it is acknowledged.

12.7.3.3. The concept of four scenarios

The three therapists in the main study and three in the pilot study, once questions had been answered to their satisfaction, were willing and happy to work with the concept of the four scenarios. This suggests that they accepted the basic premise that music can influence both observable behaviour and mental processes and also that these influences, while intimately interrelated, can for the purposes of study be singled out for separate consideration. The concept was to receive further support from the way it was developed by the therapists in the panel discussion. Such a temporary separation between influences on different persons in the therapy room and/or between their observable behaviour and mental processes could be a useful analytic tool in any study focusing on the specific effects of music.

12.7.4. Novel methodology – discussing continuous responses

12.7.4.1. Musical transcription used to locate significant events

The therapists gave a positive reception to the novel methodology of reviewing, with a musical score, continuous responses originally made without a score. This research format would be applicable to any situation where continuous responses to music have been made

and it is desired to relate these in detail to the music. The continuous responses might be judgments of any relevant parameter which could be influenced by the music. Locating significant events on a score is more efficient than using a time counter, which entails stopping the recording to register each judgment. The comment in the panel meeting (Appendix 14, lines 0646-7) that such detailed reflection on our work is all too rare suggests that this use of video could also be effective as a method of continued professional development.

12.7.4.2. Video-recordings encourage diverse interpretations

The general approach of free panel discussion of video-recorded clinical material with the aid of a score and an audio or video-recording is valid independently of the theoretical framework of four scenarios adopted here. The composite response sheets and the subsequent discussion were salutary reminders that meaning in therapy may be construed in contrasting but equally valid ways. Such diversity does not imply that all interpretations are arbitrary. In many cases what happens in therapy is ‘overdetermined’, meaning that two or more unrelated processes, any of which might on its own account for what happens, may operate simultaneously. In order to explore the differences of interpretation which emerge, it is helpful to be able to return repeatedly to the video recording.

The panel discussion of video material is also interesting as an example of contemporary clinical thinking by music therapists, of varying trainings and levels of seniority, when not personally involved in the therapy, as would normally be the case when clinical work is studied and discussed. Such a record could be used, together with the video to which it referred, as a training resource, or as data for discourse analysis (Ansdell, 1990 and 5.6.2.).

12.7.5. A new application of a classification by Daniel Stern

The concept of four scenarios (6.5.2., 6.5.3., 6.5.4., Table 2 and Appendix 2) was derived from Stern’s analysis (1998, Chapters 8 and 9) of the triadic interpersonal dynamic comparable to TSII which occurs in mother-infant psychotherapy. It has been used in this study as an analytic tool (12.7.3.2.). for investigating clinical work. It will also be helpful in structuring guidance on improvising for TSII (12.5.1., 12.5.2., 12.5.3.). Finally, it is a framework worth holding in mind during therapy in triadic situations, where it may be helpful to ask oneself such questions as whom exactly one’s music is addressing, what the other interacting partner may make of it, and especially whether to focus directly on the behaviour which enacts a representation or to approach it indirectly by way of music addressing the representation.

12.7.6. First person contribution to the analysis

As one individual's opinion, grounded in clinical experience, the musical analyses and interpretations of the music therapeutic process in Chapter 11 constitute a discursive self-report by the therapist-researcher. Readers may find the many and varied links made between musical features and characteristics and therapeutic effects suggestive and stimulating, without necessarily forming a definite opinion as to their accuracy – in other words whether the clinical process is accurately reflected in the analysis. They would be in a somewhat stronger position to make this judgment if it had been possible to include video or audio recordings with this thesis.

When looking beyond individual detailed observations and reflecting on this therapist's way of analysing therapeutic music, readers may wish to consider how far this reveals habits of thought and forms of understanding which have influenced his clinical work as well as his way of explaining it. I hope it will be evident that the relatively sophisticated thematic and harmonic development in some clips, the result of my pursuit of composition, do not indicate an over-emphasis on the aesthetic aspect of the music.

Chapter 11 provides a linear commentary, examining musical and therapeutic developments in the order in which they occurred. I believe this approach much more appropriate to the analysis of music in therapy, which is normally only created and heard once, than analytic methods developed for composed music. Repeated listening to composed music reveals larger thematic and formal structures which can be mentally scanned as a whole with increased familiarity, in a way that cannot occur during therapy.

12.8. Suggestions for further research

The original central purpose of this research was to validate the claim that improvised music can address the four scenarios in triadic work in support of a client-assistant dyad. The music therapists' contributions to the study have certainly supported this claim and the LSAs' contributions have endorsed the general efficacy of TSII as a format suitable for supporting client-assistant interaction, but the continuous responding methodology (9.1.6.) requires revision. What changes should be made?

12.8.1. The methodological flaw in the continuous response task

Some methodological limitations have been mentioned (9.6.1.) but there was a more fundamental error in the design which rendered the method of registering musical influences logically weak. This error sprang from my concern not to prescribe, and thus

limit, the features of either the music or the student and LSA responses which the music therapists might wish to consider. However, this left therapists free to focus on any aspect of the student's or LSA's behaviour or inferred mental processes, according to the scenario being considered, *without specifying which* even to themselves. They then made judgments about the influence of the improvised music on that unspecified aspect. This unfettered freedom to choose which of the participants' perceived clinical needs to focus upon inevitably led to disparate continuous response data, giving a misleading impression of randomness. It only became clear in the panel discussion what therapeutic aims therapists had selected when making their judgments on how the music addressed them. Often the therapists had had in mind different aims and, even with similar perceptions of the music, had ended up making very different judgments.

12.8.2. Suggested improvements to the music therapists' part of the study

An amended approach which still uses the continuous response methodology and involves considering four scenarios in sequence, will now be outlined.

- 1) Each therapist-observer watches a video clip and decides what appears to be the clinical need for the student or the LSA, expressed in terms of a behaviour or an inferred mental process (according to the scenario being considered) which it would be helpful either to sustain or to modify – terms I now consider preferable to support and challenge.
- 2) (S)he records in writing the behavior or inferred mental process selected, together with the decision whether it should be sustained or modified.
- 3) The therapists meet as a panel, discuss what they have written, reach a consensus (which may involve compromise) and record in writing the consensus view of clinical need, for each example considered, under each scenario. There should probably be the option of omitting from consideration any scenario that is not felt to be relevant to a particular clip.
- 4) The therapists individually watch each video clip, using a modified continuous response device with only zero and positive values of 1, 2 and 3 on the dial, to record, in a series of viewings, how much (if at all) the music appears to them to address each of the clinical needs on which they have now as a panel agreed. Both sustaining and modifying would be registered in positive values on the dial, since it will have been agreed in advance which is clinically needed.
- 5) The pointer movements are transcribed synoptically as in the present study and returned to the therapists to discuss as a panel. The panel is now in a position to compare their judgments on the relationship between the music and the *same agreed explicit clinical aims*.
- 6) The panel discussion proceeds as before.

This design would still not prove causal relationships between musical characteristics and therapeutic influence, but would deliver a range of expert clinical opinion about what

musical characteristics are perceived as addressing various clinical objectives, and how effectively they did this in particular instances. Such data would be easier to collate, and would carry greater authority than the first person research approach in Chapter 11, because of the use of independent assessors. This authority could be strengthened by using more assessors.

12.8.3. Preliminary thoughts on methodology for a clinical trial of TSII

The extent to which TSII or something similar is already in use may become clearer as the present study is disseminated and responded to. If a number of therapists report that they already work in this way, or are interested in adding TSII to their repertoire of therapeutic procedures, a randomised controlled trial should be conducted. Moessler et al.'s (2011) study of the efficacy of resource based music therapy shows how it is possible to balance the claims of treatment fidelity and therapeutic freedom. They asked therapists from a range of compatible theoretical orientations to work in their usual manner with the treatment group, and to complete a reflective self-audit after each session of their use of resource based therapeutic approaches. The same could be done in a study evaluating TSII. There would be no insistence on the use of TSII, but the extent of its use could be monitored after each session. 'Standard treatment', the recommended control for non-pharmacological experimental studies (Howick, 2013), would in this context imply no music therapy. A control group not using TSII would be inappropriate, since to achieve this either the role of the assistants would have to be purposely restricted, or assistants would have to be excluded. In the latter case, their presence or absence would be a powerful confounding variable.

Evidence of positive outcomes, accompanied by a qualitative audit of the extent of the use of TSII, would endorse the effectiveness of TSII. Outcome measures for both experimental and control groups should include indicators of developmental progress *outside* music therapy, with an emphasis on interaction skills. These should be recorded by blinded independent assessors. Skills displayed *during* music therapy should also be assessed, although here there could be no comparison with the control group. This combination of observations both within and beyond music therapy to illustrate generalisation would resemble that in the study by Aldridge et al. (1995).

12.8.4. Further investigation of the role of assistants

TSII is one among many possible ways of using assistants (Chapter 7). Its use has been investigated in one among several clinical situations where it might be appropriate

(12.2.2.). There are also situations where, although assistants are necessary to support music therapy, TSII would not be inappropriate. Therapists should always bear in mind how greatly the effectiveness of assistants can vary according to skills, attitudes and circumstances, as demonstrated by the online survey, and think most carefully about how best to use assistants in each situation. I hope the present study will stimulate others to write about the use of assistants.

12.8.5. A procedure or an approach?

TSII has been consistently referred to as a ‘procedure’ (Bruscia, 1987, p. 16) in order to emphasise that TSII has certain defining features, as its full title indicates, but is not a new music therapy model involving a new theory of how music therapy works and what it aims to achieve. The ‘theoretical model’ of four scenarios (6.5.2. and Table 2) is an analytical tool whose use is not necessary in order to understand and practise TSII. It would however be hard to justify TSII to any who do not believe music capable in its own right of influencing both mental processes and observable behaviour or who do not accept the validity of involving an assistant as an interaction partner.

TSII developed in my clinical work for pragmatic reasons (Chapter 1). It should perhaps be thought of as one end of a continuum of possible dynamic relations between therapist, client and assistant. Any music the therapist improvises will inevitably influence both client and assistant. TSII, however, is distinctive for the therapist’s relative abstinence from other social signals, such as verbal language or body language, which could tend to make him, rather than the assistant, the focus of the client’s social interest. In five of the seven clinical examples in this study sung words are briefly used, but only the short acknowledgment to Tiffany in clip 1 is an unequivocal address from me to the client. The remainder are either more impersonal remarks addressed to the client or commentaries on the interaction. The potential for other social signals from me to the students, such as body language, is minimal in these clips, as I am always seated behind a keyboard at some distance from the client, whereas the LSA, except in the case of Zeb and Dana, is very close.

TSII is thus distinguished by nature of the triadic dynamic and not, despite the general remarks in section 12.5., by the character of the music. Why, then, was it necessary to carry out in depth analyses of the music in order to promote a way of socially structuring a music therapy intervention? The purpose was to raise awareness of the procedure and commend it to professional colleagues. In such advocacy, illustrations are virtually indispensable, and they need to be both vivid and intrinsically interesting. The radical new

approach of Creative Music Therapy, developed in the 1960s and 1970s by Paul Nordoff and Clive Robbins, could not have sparked such intense international interest without the aid of audio and video-recordings and musical transcriptions, wherever possible presented personally to colleagues or trainees. A theoretical exposition alone would not have had the same impact. I believe the more modest novelty of TSII is likewise best served by providing illustrations of the procedure at work and as vivid an account as possible of how my two groups of collaborators responded to those illustrations. To them, as well as to the seven students whose therapy we have explored, I owe the profoundest gratitude.

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