Evaluating the impact of a skills-based intervention on the readiness of generalist teachers in a special school to teach music

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Declaration of original authorship

I confirm that this is my own work and the use of all material from other sources has been properly and fully acknowledged.

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Abstract

This thesis explores the lived experiences and perspectives of four generalist teachers from one special school in England as they engage with a skills-based training and mentoring intervention aimed at increasing their competence and confidence for teaching music, by focusing specifically on their classroom musicianship. This is important because there is a distinct lack of research-informed music education discussion focusing on pedagogy led by such teachers and on special school music provision in general. A survey that was distributed to other generalist teachers in the research school frames the main intervention that took place over eleven months. Various tools were used to collect a wealth of qualitative data. Visual methods track and measure a change in participants' practice. A consistent approach to analysing qualitative data started with open and focused coding, before sensitising concepts were identified, leading to constant comparison that elicited discussion around a set of three core themes and several sub-themes.

Key findings revealed participants' limited and negative experiences of music education and training pre-intervention, causing significant gaps in their music subject knowledge, musicianship and music teaching. These poor experiences had triggered feelings of low self-efficacy for teaching music and concerning belief systems related to the importance of music within core Special Educational Needs and Disabilities (SEND) curriculum provision, their own music teaching responsibilities and the musical potential of pupils with SEND. Training participants in key areas of music subject knowledge and classroom musicianship led to developments in their SEND music pedagogy and increased their levels of competence as teachers of SEND music. Adopting a strengths-based approach by drawing upon aspects of SEND pedagogy that were familiar to participants firmly supported the development of their practice. The SEND music expertise of the mentor was crucial within the training process. Subsequently, participants developed a sense of ownership of their practice and reformed expectations of both themselves and their pupils, along with feelings of increased resilience, enjoyment and confidence for teaching music.

This study offers a significant contribution to professional knowledge and practice because it presents a model of music Continuing Professional Development (CPD) for in-service special school teachers, tailored specifically to music pedagogy for teaching SEND children. This is not commonly offered in professional or academic training. This research asks special school leaders to ensure that high-quality music provision is placed at the forefront of school policy and practice moving forward. Those involved in setting national policy and agenda are also called upon to urgently review general curriculum policy and music's place within this, along with SEND curriculum policies and music education policy in light of the range of issues and complexities this research highlights.

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Glossary of Terms and Acronyms

CoP	Code of Practice
CPD	Continuing Professional Development
DfE	Department for Education
DoH	Department of Health
EHCP	Education, Health and Care Plan
EY	Early Years
GT	Grounded Theory
GTMS	Generalist Teachers in Mainstream Schools
GTSS	Generalist Teachers in Special Schools
ITT	Initial Teacher Training
NAS	National Autistic Society
NHS	National Health Service
NQT	Newly Qualified Teacher
PCK	Pedagogical Content Knowledge
PECS	Picture Exchange Communication System
PMLD	Profound and Multiple Learning Disabilities
SEND	Special Educational Needs and Disabilities
SLD	Severe Learning Disabilities
SoI	Sounds of Intent
SLT	Situated Learning Theory
UPI	Untuned Percussion Instrument

1.0 Introduction

In his seminal text *How Musical is Man?* Blacking (1973) contested that we all have an innate and universal relationship with music, and that being musical is a genetically inherited trait of the human species. Music has been defined as a 'diverse, global, human practice' (Rickson & McFerran, 2014, p.6) that 'has the potential to enrich people's lives and societies' (Hesmondhalgh, 2013, p.1). Key reports including *The Henley Report* (Henley, 2011), *The Importance of Music* (DfE, 2011), *Music Education: State of the Nation* (Daubney, Spruce & Annetts, 2019) and *The Power of Music: A National Plan for Music Education* (DfE & DCMS, 2022) collectively highlight the value of music and music education in terms of economic benefit and cultural capital, alongside social and individual wellbeing. Research documents the wider or transfer benefits of engaging in musical learning for children (Williamson, 2014), recent research having listed this in detail (Welch, 2021). As a universal form of expression and communication amongst all ages and cultures (Mehr, Singh, Knox, Ketter, Pickens-Jones & Atwood, 2019), one of the key principles underpinning this thesis is that we all have a musical birthright (Welch & McPherson, 2012) and so music education should be 'available in some degree to everyone' (Paynter & Aston, 1970, p.3). Offering a high quality of music education to all children should therefore be a priority for those involved in education.

A wealth of recent neurological research indicates that the human species is biologically musical (Hodges, 2019; Schlaug, 2015). Added to this, evidence of musical enculturation suggests infants are born with listening and musical processing skills without formal learning to develop these (Imberty, 2000; Trehub, 2000). In the context of this thesis, it is therefore inferred that children with Special Educational Needs and Disabilities (SEND) are equipped with the same inborn capabilities and therefore have the capacity to develop as musicians (Portowitz & Klein, 2007; Welch, Ockelford, Carter, Zimmerman & Himonides, 2009). Their path of musical progression, although generally more delayed, is not fundamentally dissimilar to that of their typically developing peers (Ockelford, 2008) with reported similarities in musical behaviours between learners with and without disabilities (Welch & Ockelford, 2010). As a result, children with SEND are entitled to a high-

quality music education that develops them as musicians; disability should not predetermine or affect this right and any denial to do so is 'literally dehumanizing' (Lubet, 2009, p.279). Similarly, if universal musical enculturation means every person is fundamentally musical, then this means every teacher is musical and should therefore be 'in a position to teach music to children' (de Vries, 2013, p.378). This position rejects the urban myth (Williamson, 2014) that a chosen few are born musical and therefore able to learn in and teach music. After over a decade of teaching and coordinating music as a subject specialist in primary and secondary special needs schools in England, I became, however, increasingly concerned by the quality of music education on offer to children with the most complex of needs in our society.

1.1 Professional concern and rationale for research

I have long observed a fairly unanimous belief amongst Generalist Teachers in Special Schools (GTSS), this being that music presents opportunities for success for pupils with SEND, unlike other subjects that often appear to present difficulties (Jaquiss & Paterson, 2017). Despite having such a firm belief in the value of music for their pupils, many of my GTSS colleagues admitted they did not feel capable of teaching music, reporting low levels of subject knowledge and musicianship skills, alongside a lack of confidence and musical self-concept. I noted trends in their experiences of and views towards teaching music that potentially shed some light on the situation.

My colleagues reported that prior to working at the research school, they did not have much experience of teaching curriculum music as Generalist Teachers in Mainstream Schools (GTMS). As GTSS, I observed how they were cautious about teaching music owing to this lack of experience and had chosen to limit what they did as teachers. For example, they avoided activities they perceived as more complex, such as those involving instruments. I frequently heard them describe themselves as being "*tone deaf*" or "*not a singer*", phrases that suggested they self-defined as musical failures and non-musicians. The strength of these belief systems coupled with their limited practice suggests that their own music education, Initial Teacher Training (ITT) and Continuous Professional Development (CPD) in music were far from adequate and had potentially reinforced negative messages.

I repeatedly observed how my GTSS colleagues used musical experiences, particularly singing, as a teaching tool to deliver other aspects of the curriculum rather than teach a music curriculum that focused on developing pupils' musicianship. Presumably they perceived these other subject areas as more important and easier to teach than music, if they had received more training in them and had more experience of teaching them. They also used music to promote the learning of non-musical skills (such as communication skills) and to elicit a social-behavioural response from pupils (for example, by cueing pupils into daily routines and timetable changes). Whilst learning *through* music has been acknowleged as valuable within the total music education experiences of pupils with SEND (Carlson, 2013/2016; Kittay, 2008; Welch, Ockelford, Zimmerman, Himonides & Wilde, 2016), I firmly believe this should be incidental to, and not in place of, the formalised teaching of curriculum music through which learning *in* music (Ockelford, 2008) is the focus. Whilst this situation may well have been a consequence of GTSS being ill-equipped to teach music, I hypothesised that it may also have been indicative of a shared, potentially subconscious, prejudice that GTSS had regarding the musicality of pupils with SEND which affected the way they approached SEND music. Colleagues perhaps believed that pupils with SEND lacked universal musicality and an innate ability in music that we all share (see Section 1.0), and so were unable to develop as musicians, applying limitations and assumptions that are arguably reflective of society's general views of disability (Abramo, 2012). Whilst my colleagues had never explicitly said this to me, I felt that this was an important point to investigate in order to address and challenge a situation in which pupils with SEND were being deprived of the chance to develop as musicians.

1.2 The complexity of music provision in special schools

The way in which GTTS viewed music education in special schools was arguably further complicated by the significant and growing presence of music therapy in these settings (Welch et al., 2016). There are concerns of conceptual confusion between both disciplines (Mawby, 2018), in view of music therapy being 'another strand in the complex network of day-to-day music-educational experiences, between which there is no discernable coherence' (Ockelford, 2008, p.37). Music therapy is defined as a psychological clinical intervention aimed at individuals with an injury, illness or disability (BAMT, n.d.). Despite its focus not being music education

which seeks to facilitate the child to learn as a musician through performing, composing, listening and appraising, music therapy shares professional territory with music education in terms of goals and processes (Smith, 2018). Some argue in favour of interdisciplinarity and collaboration between therapy and education (Hammel & Gerrity, 2012; Jellison, 2015; Jellison, Brown & Draper, 2015) rather than reinforcing divides (Rickson & McFerran, 2014). It was beyond the scope of this thesis to explore the viability of this but my fear was that it would add to a situation in which pupils with SEND lacked the opportunity for a 'genuine music education experience' (Jellison, 2006, p.257). This research was concerned with music education and not music therapy, which provides a different experience for pupils with SEND.

1.3 Research aims and objectives

This thesis advocates for high-quality music teaching to be 'a fundamental element of curriculum that cannot for any reason be made an exception' (Lubet, 2011b, p.59) in special schools. The research was underpinned by a social model of education that embraced the 'learning styles, strengths and difficulties, and educational needs' (MacKay, 2009, p.9) of pupils, regardless of their barriers to learning. Pupils with SEND are entitled to the opportunity to fully exploit music as as a unique and essential element of their lives (Bowman, 2012) rather than their development as musicians being left to chance through other curriculum activities or music therapy. This is an important matter of social justice in response to the marginalization that people with intellectual disabilities have continually faced (Carlson, 2010). It is therefore imperative that GTSS teach music competently and confidently, arguably a complex area of professional practice that requires specific training to meet the needs of pupils.

1.3.1 The research gap

Although a large body of research has explored factors that have adversely affected the readiness of GTMS to teach music (see Section 2.5.4), the content and approach to training, and the impact this has on the Pedagogical Content Knowledge (PCK) of generalist teachers, is not well documented (see Section 2.5.6). Further to this, none of these studies examine the music training needs of GTSS and so there is little understanding of how to address some of the issues highlighted earlier (see

Section 1.1). The aim of this study was to provide one type of solution to the problem, by illustrating how training in SEND music, with a focus on developing the musicianship of teachers (see Section 2.5.3), may result in GTSS autonomously delivering formal curriculum music provision that meets the needs of learners, where they previously did not. Framed by learner-centred theory (see Section 3.3.2) and skills-based approaches to teacher professional development (see Section 2.5.7), a training intervention was led by myself working in a subject specialist, researcher-mentor capacity. The aim of skills-based learning was to help teachers achieve 'reproducible expertise' (Roessger, 2016, p.119) within SEND music. Based on prior attempts at isolated, short CPD sessions in SEND music and observations of music training being delivered by external organisations, I proposed that this was best achieved through person-centred, side by side training and mentoring on a long-term basis. This approach to music training is preferred by GTMS (Ibbotson & See, 2021) and has been successful in other research (Barrett, Zhukov & Welch, 2019; Holden & Button, 2006). The approach was also inspired by elements of ethnomethodology and grounded theory (see Sections 3.4.2 & 3.4.3), in the way I was immersed in and responsive to the classroom environments of participants.

1.3.2 Conceptual framework

By adopting an adult version of child-centred learning based on learner-centred theory (see Section 3.3.2), person-centred or learner-centred training developed the musicianship of research participants by training them as musicians, in ways that focused on their individual needs. The hypothesis was that this would then support them to teach as musicians with informed PCK in SEND music. By enacting positive changes in their practice, this research project sought to facilitate their growing sense of identity and agency as generalist teachers of music. This approach was firmly grounded in the belief that pupils with SEND are entitled to high-quality music teaching from teachers who know them well as part of everyday classroom practice and that, as these teachers, GTSS were capable of delivering this.

1.3.3 School context

The study took place at Mount View School[1], a primary special needs school in England for almost 200 pupils with Severe Learning Difficulties (SLD), Profound and Multiple Learning Difficulties (PMLD) and autism aged 2 to 11. All pupils who attend the school have an Education Health and Care Plan (EHCP) in place, a document designed to 'secure the best possible outcomes for them across education, health and social care' (DfE & DoH, 2015, p.142)[2]. Pupils with an EHCP are in the minority of the national school population. Exactly 4% of school pupils in England have an EHCP and around 40% of pupils with an EHCP attend state-funded special schools (DfE, 2022).

A pupil's EHCP identifies a primary and sometimes secondary area of need. Within the total population of pupils with an EHCP in special schools in England, just under 34% have autism identified as their primary need, this being the most common primary need. Almost 20% of pupils have SLD as their primary need, whilst only 6% have PMLD as their primary need (DfE, 2022). All pupils who attend Mount View School have an EHCP, the profile of learners generally mirroring the above national percentages. School records (as of September 2022) indicate that 48% of pupils have autism, 34% have SLD and 16% have PMLD as their primary area of need. Nationally, over 88% of pupils with SLD and 83% of pupils with PMLD identified as a primary need are taught in special schools (DfE, 2022), indicating the highly specialist provision required to meet their complex needs.

1.3.4 Potential significance of the study

By documenting a specific approach to SEND music teacher training and a 'body of core music teaching practices' (Millican & Forrester, 2019, p.86) in SEND that emerges from this training, this research makes a significant contribution to professional knowledge and practice within the fields of teacher training and SEND music education, as well as disability and inclusion studies. Although the study is small-scale and specific to the context of one special school, the grass-roots training and mentoring model in SEND music has the potential to be replicated in other

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[1] This was a pseudonym assigned by the researcher, in order to conceal the name of the school involved in the study.

[2] The research in this thesis was undertaken during the remit of the CoP (2015). The researcher is aware this is currently under consultation. This research took place before this started and so any changes which impact provision in schools did not form part of this research and discussion.

special schools nationally and internationally. The study provides a starting point from which to establish an approach to music CPD for in-service special school teachers. This approach may also be particularly helpful for other practical subjects that require teachers to model and lead using their own subject knowledge and skills, and then design and deliver learning sequences that meet the learning needs of pupils with SEND. Whilst outlining the design and efficacy of this training model forms the study's main contribution to professional knowledge and practice, the research also makes other contributions to the SEND sector.

The lived experience of GTSS participants as they learned to teach music and their developing PCK in SEND music teaching is documented, thereby providing detailed information on SEND music pedagogy that is likely to be of interest to GTSS external to the research school and to the wider research community. There is also a distinct lack of guidance available for GTSS on how to teach music to pupils with SEND, a key point that is explored shortly (see Section 2.4). Whilst addressing this is not the main aim of the research, the teaching strategies and resources used within the training intervention may provide the wider population of GTSS with some ideas of how to do so. There also appears to be a lack of research informed discussion regarding how GTSS approach and feel about teaching music (Ockelford & Markou, 2012). Whilst participants' experiences of training formed the main focus of the research, examining their attitudes and beliefs towards this aspect of their practice was deemed to be important, particularly in light of concerns that GTSS may have been placing limitations on their own and their pupils' potential to develop as musicians (see Section 1.1). This may also address calls for research to investigate the role that music can play in changing attitudes towards disability (Jellison & Taylor, 2007).

1.4 Thesis structure

This thesis begins by outlining key definitions underpinning the research topic and reviews key literature regarding SEND, music education and teacher training in music in Chapter 2. Gaps in the existing research are identified, before the study's research questions are presented as a means of addressing these. Chapter 3 presents a rationale for the mixed methods, action research approach taken within the study, exploring the epistemological and ontological assumptions that underpinned the research. It sets out how learner-centred theory influenced the

chosen research methods, data collection, approach to analysis and reporting of the data. Chapter 4 reports survey findings that gathered the views of a number of GTSS in the research school on teaching music, as a means of framing the main study. Chapter 5 presents detailed, participant-specific findings from the main study before drawing together key themes regarding their experiences, perceptions and feelings. Data were interpreted cautiously, given the sample was small and opportunistic within one case school. Chapter 6 discusses the significance of these key themes in detail, providing evidence of how a skills-based training intervention in music with four main-study participants impacted upon their competence and confidence to teach music. Discussion of the study's findings in this way forms an original and significant contribution to professional knowledge and practice. Chapter 7 concludes the thesis by revisiting key findings, illustrating how the research questions and aims of the study were met. Recommendations for future practice are made, before the strengths and limitations of the chosen research methodology are reviewed. Areas of future research are suggested based on how this study's training model could feasibly be replicated with GTSS in their delivery of other subjects.

2.0 Literature Review

This chapter reviews the literature relating to Special Educational Needs and Disabilities (SEND) and music education, and teacher training in music. It provides a contextual framework to this study, the purpose of which is to document and evaluate an approach to in-service teacher training in SEND music for Generalist Teachers in Special Schools (GTSS) that has the potential to be replicated in other special schools.

2.1 Introduction

This chapter begins by examining key theories that underpin SEND teaching and learning (Section 2.2) before defining key terms framing the context (Section 2.3), focusing on relevant areas of SEND. It provides detailed discussion of how these needs present in the music classroom, in order to examine the nature of the challenge of teaching music to children with SEND. Existing research that connects music and disability, and that documents what is known about Pedagogical Content Knowledge (PCK) in music, is pieced together as a means of highlighting gaps in SEND music pedagogy and provision that this research seeks to fill (Section 2.4). The term *generalist teacher* is then defined and a case made in favour of GTSS being best placed to teach music, before a model of music subject knowledge and classroom musicianship is proposed for GTSS (Section 2.5). An exploration of the barriers Generalist Teachers in Mainstream Schools (GTMS) colleagues have faced when teaching music follows, along with an examination of the terms self-efficacy and confidence as constructs that dominate music training research with GTMS and that subsequently help capture a change in the readiness of GTSS to teach music within this study. An appraisal of the music training of GTMS is conducted at this point, owing to a lack of studies specific to GTSS, before a training model specific to the research school is determined. The chapter then concludes with a summary of key points, identifying a clear gap in professional knowledge and practice that relates to understanding and meeting the music training needs of GTSS. These conclusions frame the research questions (Section 2.6) as this study seeks to make a significant and original contribution to professional knowledge and practice in this area.

2.2 Teaching and learning in SEND: Key aspects of practice

There is debate as to whether learners with SEND require a specialist or distinctive approach to teaching (Trussler & Robinson, 2015). In the case of some learning difficulties such as dyslexia, defining and identifying a prescriptive pedagogy is not supported within the literature (Elliot & Grigorenko, 2014; Reid, 2005/2011) owing to the wide variations and differences in how learners experience dyslexia. In contrast to this, there is some support for pedagogy that takes account of the characteristic difficulties that pattern learning and development for autistic individuals (Jordan, 2005). Lewis and Norwich (2005) argue that SEND teaching approaches are based on the same basic principles as general, high-quality teaching but are typically more intensive, aligning with the notion that learners with SEND benefit most from a combination of teaching strategies that are not distinctly different from those used to teach all children (Davis & Florian, 2004). This means that teachers of pupils with SEND are 'charged with making decisions about which teaching approaches would be most fitting with the needs of the learner, within a particular context at a particular time for a specific purpose…calling on a wide range of pedagogic skills and insights about how children learn and develop' (Trussler & Robinson, 2015, p.81). The way in which GTSS might apply this pedagogic knowledge to practice within the SEND music classroom is now examined.

Differentiation is a key strategy within SEND policy and practice, and is central to inclusive classroom practice (Choudry, 2021). However, the way in which differentiation is applied and understood within classrooms can be limiting for learners with SEND if a majority first approach is taken (Trussler & Robinson, 2015). This approach is when ability grouping and individual interventions address the different, extra or specialised approach (Corbett, 2001) children with SEND need. Alternative ways of planning for differentiation include having the needs of everyone in mind rather than just the majority (Black-Hawkins & Florian, 2011). Starting with the needs of the most complex to engage and teach means that 'overt forms of support (such as TA deployment or adapted worksheets) become unnecessary' (Trussler & Robinson, 2015, p.60). Such an approach instead presents a 'solutions catalyst [through which] learning difficulties become triggers for innovations in our teaching so that all children can learn more effectively' (Trussler & Robinson, 2015, p.62). In the context of this thesis, it is contested that these more inclusive

approaches to differentiation are an important element of SEND music training for GTSS because they align closely with the principle of musical enculturation underpinning this research (see Section 1.0). In other words, this approach to differentiation supports the idea that everyone can do music, meaning that teachers should approach their planning and delivery of SEND music in a way that facilitates the musical development of the most complex learners. The skill of the SEND music teacher is then to adapt to the needs of individual pupils who may require additional or alternative methods in order to engage with learning and make progress. Facilitating effective, child-centred teaching in this way is, however, dependent upon a number of factors.

Personalisation of learning that addresses the whole range of a child's needs and that celebrates their 'strengths, abilities and successes rather than just their needs and barriers' (Choudry, 2021, p.171) is supported within the literature (Skipp & Hopwood, 2017). One way in which special school teachers can personalise learning is by preparing and delivering materials in a range of ways, and by giving pupils the opportunity to respond to these materials in a range of ways (Hammel & Hourigan, 2011). In the context of the SEND music classroom, many pupils 'learn best when their bodies are in motion and concepts such as tempo, style, dynamics, and genre can be practised through movement…to accompany the aural experience of listening' (Hammel, 2017, p.9). Choosing instruments that readily carry vibrations, such as the guitar or harp, specifically benefits learners with multi-sensory impairment (Hammel & Hourigan, 2011) because feeling vibrations helps learners with such significant and multiple needs to physically engage with music. Such approaches within the SEND music classroom support the idea that teaching new concepts using concrete examples is more effective for all learners because it is more memorable for them (Glazzard, Hughes, Netherwood, Neve & Stokoe, 2010). For those learners with SEND for whom behaviour presents as a particular challenge, careful classroom preparation and specific teacher interventions lead to improved behaviour. Personalised interventions targeted at these pupils include close supervision and monitoring, establishing clear classroom rules and positive reinforcement through praise (Conroy, Sutherland, Syndon & Marsh, 2008). Offering a consistent structure and routine in the SEND music classroom, such as by using the same opening song or activity, positively supports these learners (Hammel & Hourigan, 2011). Whilst it is important to accommodate pupils' social, physical,

sensory or academic needs in these ways (Hammel & Hourigan, 2011), it is equally important to acknowledge their zone of proximal development (Vygotsky, 1978) in terms of identifying the gap between what they can do and what they are capable of achieving with guidance and scaffolding from more knowledgeable others.

Scaffolding is a process through which a more knowledgeable other, such as a teacher, uses dialogue to consider, share and develop ideas with pupils (Glazzard et al., 2010). In the professional experience of the researcher, scaffolding in the SEND context is likely to be gestural and visual as well as verbal, given the barriers to learning pupils with SEND typically present with (see Section 2.3). The teacher adjusts the nature and amount of support offered to suit the child's ability level (Schaffer, 2006), repeating and reinforcing learning at a pace that suits individual learners. Pacing teaching gives learners time to process and respond to information. Pupils with SEND can struggle with 'the pace of instruction, amount of materials presented, performance expectations, and sheer sensory overload' (Hammel, 2017, p.9). Teaching Assistants (TAs) within special school classrooms can support with scaffolding and pacing, and ultimately help the teacher to personalise learning for pupils. Being able to effectively deploy TAs in any classroom setting is an essential aspect of high-quality teaching (Webster, Russell & Blatchford, 2016). This is particularly important, however, in special schools because classrooms usually have a high number of TAs. Knowing how to make effective use of these staff to add value to what the teacher does, support pupils to develop independence around their own learning and provide individual/small group teaching (Choudry, 2021) is therefore a key part of SEND pedagogy. In the SEND music context, it is important that a teacher has the musical skills and confidence to direct TAs in this way.

This section has emphasised the importance of GTSS taking a child-centred approach to teaching and learning in the SEND classroom. In order to promote this SEND related pedagogy in the music classroom in the context of this study, within which teacher participants were encouraged to put the child-learner in the centre of music teaching, the researcher applied a learner-centred approach to the training model at the centre of this study (see Section 3.3.2). The range of skills required of GTSS has also been highlighted, justifying the need for a skills-based training model (see Section 2.5.7), through which participants were supported to apply their generalised and expert SEND pedagogy to the music teaching context. In order to

understand participants' classroom-specific music teaching contexts, it is important
to outline the learning needs of pupils in the sample classrooms.

2.3 Key SEND definitions and classroom indicators for teachers

According to the Special Educational Needs and Disability Code of Practice
(DfE & DoH, 2015), a child or young person has a learning difficulty or disability if he
or she 'has a significantly greater difficulty in learning than the majority of others of
the same age, or has a disability which prevents or hinders him or her from making
use of facilities of a kind generally provided for others of the same age' (DfE & DoH,
2015, p.16). This section defines key SEND terms relevant to the research school,
including Severe Learning Difficulties (SLD - Section 2.3.1), Profound and Multiple
Learning Difficulties (PMLD - Section 2.3.2), and autism (Section 2.3.3). Reference
is also made to other conditions commonly associated with these terms, and which
were present in the study's sample classrooms. The way in which pupils with these
needs present in the music classroom is discussed, providing an indication of the
nature of music teaching at the research school and the challenges special school
teachers typically face as a result of the varied and complex needs of pupils.

2.3.1 Severe Learning Disabilities

For the purposes of this study, pupils with SLD are identified as having a
range of significant barriers to learning. These include communication difficulties
(DfE & DoH, 2015) which can vary significantly and are likely to affect a pupil's
understanding of and ability to use language. Many pupils with SLD need verbal
information such as instructions or questions simplifying to key words. They require
similar support with their reading and are unlikely to develop conventional reading
and writing skills (Lawson, Layton, Goldbart, Lacey & Miller, 2012). Some pupils
with SLD may rely on non-verbal forms of communication (Anderson, 2011) such as
gesture, vocalization and facial expression because they cannot yet communicate
using verbal language. For those who can, their recall and use of vocabulary is likely
to be limited, meaning pupils with SLD display atypical or idiosyncratic ways of
communicating (Greathead, Yates, Hill, Kenny, Croydon & Pellicano, 2016). They
are reliant on adults who know them well and who are able to interpret their
communicative acts (Ware, 2004). In order to support with their communication,
learners with SLD typically make use of augmentative or assistive methods to

interact with others (Coupe & Goldbart, 2016; Davis & Florian, 2004), using high-tech support systems such as iPads and BIGmack switches (Inclusive Technology, n.d.), as well as low-tech support systems such as sign language, photographs and symbols. Whilst non-verbal pupils may participate in singing-based activities using vocal sounds and movement (Wigram, Pedersen & Bonde, 2002), perhaps by echoing an adult's singing in an echolalic fashion, they require significant adaptations in order to participate more fully in a wider range of music activities. High-tech systems enable non-verbal pupils to engage with singing, as an adult can record specific words on an iPad or switch for pupils to trigger at the relevant point in a song. Most pupils with SLD may struggle to make musical choices and appraise musical performance without the support of low-tech systems. For example, teachers use graphic scores in place of traditional forms of notation so that pupils can choose pictures or symbols to represent sounds.

Pupils with SLD are also likely to face difficulties with mobility owing to conditions such as cerebral palsy. The National Health Service (NHS) explains that individuals may experience physical restrictions such as weakness or stiffness in their limbs, as well as random, uncontrolled movements (NHS, n.d.). They may require the use of a wheelchair, specific classroom seating or other specialist equipment in order to support their physical health and engage in activities. It is important that teachers consider appropriate seating in the context of a music activity, in order to enable and not restrict participation (Williams, 2013). Playing traditional musical instruments, even those that look relatively accessible such as drums (McPhail, 2003), can prove to be a significant challenge requiring a high level of adult support. Instruments can be adapted, for example drumsticks or beaters can have thicker handles and small egg-shaped maracas can be attached to a pupil's wrist using a Velcro strap. Alternative activities such as body percussion (clapping, stamping) remove limitations posed by inaccessible instruments and offer the additional benefit of promoting motor skill development and hand-eye coordination for some pupils with physical disabilities (Lee, 2015).

2.3.2 Profound and Multiple Learning Disabilities

For the purposes of this study, pupils with PMLD are identified as having SLD combined with other disabilities that have an even greater impact upon communication and independence (NHS, n.d.). Individuals with PMLD are

recognised as some of the most vulnerable in society (Jones, 2005). Pupils with PMLD face profound cognitive impairment meaning that they function at a stage of development equivalent to a preverbal infant (Nind & Hewett, 2001; Trevarthen & Aitken, 2001) or within the first twelve months of usual development (Ockelford, 2008), communicating using pre-verbal forms of communication such as eye contact, movement and vocal sounds. Their response to music may be very basic, sometimes just an immediate reaction to the stimulus of music or movement (Ockelford, 2008). In the professional experience of the researcher, this presents teachers with the challenge of delivering a music curriculum that is varied and progressive, but also developmentally appropriate for pupils with PMLD.

Sound and music become meaningless stimuli to pupils with PMLD, unless teachers support them to explore and understand different sounds (Douglas, 2016) using specialist and well-established approaches. These include intensive interaction (Caldwell, 2006; Firth, Berry & Irvine, 2010; Hewett & Nind, 1998) and multi-sensory learning (Aitken & Buultjens, 1992; Longhorn, 1988; Ware, 1994/1996). When using intensive interaction, an adult will mimic a child's non-verbal body language and movement. This often includes expressive or musical vocalisations, somewhat mirroring the musical nature of vocal interactions mothers have with their newborns, otherwise known as motherese (Trehub & Nakata, 2002; Williamson, 2014). Multi-sensory learning lends itself naturally to music (Jaquiss & Paterson, 2017; Sobol, 2017; Williams, 2013) as musical learning involves sound, sight, touch and movement. Multi-sensory learning is also particularly important for individuals with multi-sensory impairments (Mansell, 2010) due to partial or complete loss of vision or hearing, difficulties that pupils with PMLD can present with. Pupils with visual impairment require information to be presented in non-visual ways, including verbal, tactile (physical) and proprioceptive (movement-based) approaches. Objects of reference provide a multi-sensory cue into an activity for these learners (Aitken, Buultjens, Clark, Eyre & Pease, 2000) and in the music classroom, any accessible instrument can be used for this purpose, although tactile or brightly-coloured instruments are most effective (Williams, 2013). For pupils with hearing impairment, musical vibrations can be felt through the use of specialist equipment such as resonance boards (Soundabout, n.d.).

Pupils with PMLD often present with the same physical needs and restrictions as identified for pupils with SLD, although these difficulties can be more

extreme in individuals with PMLD (Salt, 2010; PMLD Link, n.d.). In order to meet these needs, teachers are required to direct other adults in the classroom in specific ways to promote independent music making, for example, by providing the least intrusive physical support as possible, such as supporting from underneath the elbow rather than moving the pupil's hand for them when playing an instrument (Jaquiss & Paterson, 2017).

2.3.3 Autism

The National Autistic Society (NAS) defines autism as 'a lifelong, developmental disability that affects how a person communicates with and relates to other people, and how they experience the world around them' (NAS, 2022). Autism is recognized as a spectrum disorder which can affect individuals in a number of ways (Bakan, 2016) from the 'profoundly limited to extraordinarily gifted' (Sirota, 2010, p.94). At the research school, pupils with autism are at the more limited end of this spectrum[3] because their autism is combined with SLD or PMLD. Teachers may therefore be unable to engage pupils with autism in the music classroom without appropriate support mechanisms in place to meet their multiple needs (Gerrity, Hourigan & Horton, 2013).

Autism is diagnosed using criteria related to delayed social interaction as well as impairment of language and communication skills (American Psychiatric Association, 2013; Sirota, 2010). Pupils with autism and learning difficulties can be verbal or non-verbal, leading to similar difficulties in their ability to engage with music lessons as their peers with SLD and PMLD. Non-verbal pupils with autism may use a Picture Exchange Communication System (PECS)[4] to communicate requests using symbols. In the music classroom, this can include making requests to play preferred instruments or to sing preferred songs.

Pupils with autism often display sensory integration difficulties, requiring interventions based on sensory integration theory (Ayres, 1979) that require careful

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[3] Some individuals with autism display heightened levels of music ability known as musical savantism and can therefore be placed at the gifted end of this spectrum. This is a well-researched area (McPherson & Lehmann, 2012; Miller, 1989; Ockelford, 2008; Sacks, 2008; Treffert, 1989) with more than 10% of those with classical autism known to have savant talents (Sacks, 2008, p.164). However, the term musical savant does not refer to the pupils with autism involved in this study.
[4] PECS was developed in 1984 and is a system of communication for individuals with little or no verbal communication. It is functional in its purpose, in the way that those who use it exchange pictures to communicate what they need or want (National Autism Resources, n.d.).

classroom management from teachers. Pupils who are hyper-sensitive may find specific forms of sensory stimulation, such as the sound of a particular instrument, extremely difficult to tolerate, distressing and even painful (Williams, 2013) and may need somewhere to retreat to if activities or specific sounds become overwhelming (Jaquiss & Paterson, 2017). This sensory confusion may result in episodes of dysregulation that may present as agression, defiance and withdrawal. These episodes are likely to significantly interfere with a pupil's ability to participate in everyday activities (Hartley, Sikora & McCoy, 2008), as well as learning and social activities (Lanovaz, Robertson, Soerono & Watkins, 2013; Matson, Hess & Mahan, 2013) because they indicate that pupils are displaying a heightened level of anxiety and are unable to control their own behaviour at a level required to do these things. Pupils may also present with reduced sensations, known as hypo-sensitivity, meaning they require a much higher level of multi-sensory stimulation, perhaps combining sound and movement, in order to engage with an activity or to even stay awake (Williams, 2013). In music lessons, action songs and musical games can be used for this purpose. Pupils with autism can also struggle with coordination (Stock, 2005) and executive function (Ozonoff, South & Provencal, 2005) finding it a challenge to plan, to use their working memory and to control their impulses (Hill & Frith, 2003). In the music classroom, these barriers can affect the teaching of executive skills (Hourigan, 2016) such as a handling instruments and moving to music.

Pupils with SLD, PMLD and autism present with a range of significant needs in the music classroom. Their complex learning profiles are attributed to barriers primarily involving their communication, mobility, physical skills and sensory needs. Many pupils have coexisting developmental disabilities (Ockelford, 2008) that are becoming more complex (Salt, 2010; Carpenter, 2007; Pinney, 2017), highlighting the challenge these needs present to even the most skilled teachers (Carpenter, Egerton, Brooks, Cockbill, Fotheringham & Rawson, 2011). There have been calls for improved general training for teachers of pupils with SLD and PMLD (Salt, 2010), answered to date only by the availability of optional online learning materials (DfE, 2012). Teachers report that they therefore fill this training gap by learning through practical classroom experience, including learning from and with peers, by self-inquiry and research, and through professional development courses (Jones & Riley,

2017). Such gaps within general professional training and practice in SEND mirror gaps in SEND music pedagogy and provision. These combined gaps compound the lack of support available to GTSS when teaching music to pupils with SEND.

2.4 SEND music pedagogy and provision: A disjointed field

Despite the obvious challenges SEND music teaching presents to GTSS, there is a lack of research-informed discussion regarding 'music-pedagogical thinking and practice' (Ockelford & Markou, 2012, p.384) in special schools. The purpose of this section is to highlight why this is the case, illustrating the potential significance of this study as it seeks to fill gaps in the research. Studies from nearby fields of work are surveyed and evaluated, highlighting their limited use to GTSS (Section 2.4.1). The difficulty in defining PCK in music and the absence of any known work into PCK in SEND music is highlighted (Section 2.4.2), drawing attention to research into SEND curriculum music provision that is interesting but that fails to interrogate SEND music teaching by GTSS (Section 2.4.3). This leads to conclusions that the picture of curriculum music teaching in special schools remains incomplete.

2.4.1 Disability and music in research

Much of the available research that connects disability and music is difficult for GTSS to access, interpret and use in the classroom. This is because it is often conducted within the fields of music therapy, music psychology and neuroscience (Carlson, 2016) and not music education focusing on pedagogy, and in particular not music education focusing on SEND music pedagogy.

There is a lack of research that documents effective approaches to practical music teaching that are specific enough to address the degree of severe or profound learning difficulty that pupils in special schools typically present with (Ockelford, 2008). Specific reference to learning disability is largely missing within studies that cross between the fields of musicology and disability studies, as well as within the general field of disability studies (Carlson, 2016). Physical disability is typically given a more prevalent platform, particularly in terms of how adaptions to musical instruments support music making (Howe, Jensen-Moulton, Lerner & Straus, 2015; Kinsella & Fautley, 2018). Whilst pupils with SLD and PMLD may present with physical disability, there are many other areas of impairment as a result of learning

disability, such as difficulties with communication, that GTSS have to consider (see Sections 2.3.1 & 2.3.2). The music therapy charity Nordoff Robbins has produced an extensive list of references on the topic of music and disability, particularly learning disability (Cripps, Tsiris & Spiro, 2016). Of the almost 2000 documented studies, just over 5% relate to children and adults with SLD and PMLD, highlighting the limited attention given to areas of need relevant to GTSS. Whilst this work is certainly valuable given scant attention has been paid to learning disabilities within the fields of music and disability (Carlson, 2016), it does not tackle the theoretical constructs applicable to this research because its focus is on music therapy and not music education that focuses on how pupils with these needs learn in music and how GTSS might teach them. Other research fails to address the presence of learning difficulty amongst children with autism, lacking relevance to the combined and complex needs of learners with autism in the research school and similar settings (see Section 2.3.3). In their review of the literature, Simpson and Keen (2011) largely draw upon music therapy studies in order to understand the impact of music on children with autism. Whilst they infer in places that the evidence relates to children with autism and SLD, this is not explicitly stated, meaning their examination of the effectiveness of music as an intervention to address the communication, social and behavioural needs of these children is ambiguous for GTSS who teach children at the most complex end of the autism spectrum (see Section 2.3.3). Similarly, whilst other research into the music education and abilities of children with high-functioning autism is interesting (Shahab, Taheri, Mokhtari, Shariati, Heidari, Meghdari & Alemi, 2022), it is of limited use to GTSS.

In addition, research from within the fields of music psychology and neuroscience is typically not accessible to GTSS (Levitin, 2008) because it is largely related to music perception and the brain's response to music, rather than providing practical examples of how this might present in the classroom for pupils with SEND. For example, in a study measuring music perception skills in children with autism and Down's syndrome it was found that a child's ability to interpret musical meaning is associated with their verbal mental age rather than their diagnosis (Heaton, Allen, Williams, Cummins & Happe, 2008). The revelation that musical understanding in these learners develops in line with language development is interesting, but it does not help GTSS understand how to develop the musicianship of pupils with these needs through high-quality teaching. There is in fact little understanding of PCK in

SEND music that leads to high-quality teaching, a situation that is reflective of general difficulties and gaps in defining PCK in music.

2.4.2 PCK in music: An ambiguous concept

Shulman (1986) coined the term PCK to describe a type of knowledge that teachers have 'that intertwines their content knowledge and pedagogical knowledge' (Bremmer, 2021, p.119). Shulman (1986) defined PCK as being 'the most useful ways of representing and formulating the subject that makes it comprehensible to others' (Shulman, 1986, p.9). Different conceptualisations of PCK have emerged (see Grossman, 1990; Magnusson, Krajcik & Borko, 1999; Ball, Thames & Phelps, 2008), leading to difficulties defining and researching it as a universally accepted concept (Bremmer, 2015; Hashweh, 2005; Park & Oliver, 2008). The topic of PCK has been fairly widely researched in certain areas of education, but less so in others, including music education (Bremmer, 2021; James, 2015). To the knowledge of the researcher, there remains no known research regarding the PCK of GTSS in SEND music. A lack of clarity regarding mainstream primary music pedagogy (Atkinson, 2018) presents difficulties in defining PCK for in-service GTMS and is therefore of limited use when defining PCK for in-service GTSS. Of the research that has been conducted with generalist teachers in primary schools, attention has typically been paid to the PCK in music of trainee GTMS (see Capaldo, Muscat & Tindall-Ford, 2014; Mateiro, Russell & Westvall, 2012) and not that of experienced teachers.

Other studies have focused on the PCK of experienced teachers when teaching music, but findings relate to specialist music teachers and not generalist practitioners. Millican and Forrester (2018) identified three core music teaching practices by surveying music teachers regarding their perceptions of best practice. These were: modelling, sequencing instruction and deconstructing musical concepts. A fourth area – developing knowledge of and relationships with students – was deemed less important for early career teachers in particular by the authors. Given the highly idiosyncratic and typically complex needs pupils with SEND present with in the music classroom (see Section 2.3), devaluing this fourth area was problematic if applying this model of PCK to the context of this research. There was also some ambiguity surrounding whether the results related to the practice of primary or secondary music specialist teachers. Ballantyne and Packer (2004) drew upon general education and music education theory to generate a list of the PCK of

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specialist music teachers in secondary schools. The areas they identify –
'knowledge of music teaching techniques, engaging students with music in a
meaningful way, implementing the music curriculum effectively, assessing students'
abilities in the various aspects of music, explaining and demonstrating musical
concepts' (Ballantyne & Packer, 2004, p.302) – do place an emphasis on
relationships with pupils and so align more closely with this study's focus of GTSS
and pupils with SEND. However, findings were again based on the perceptions of
teachers, raising questions as to the accuracy and validity of findings in terms of the
reality of classroom practice.

Bremmer (2021) examined the PCK of in-service music specialist EY
teachers, focusing specifically on their gestures, body positioning and physical
actions for teaching rhythm skills. Teaching was video recorded and co-analysed
between participants and researcher, an approach that arguably strengthened the
study's findings. Five key themes were reported as representing the PCK of EY
teachers when teaching music; these areas of PCK mirror general SEND pedagogy
(see Section 2.2) and relate to the needs of pupils in the study's sample classrooms
(see Section 2.3), as illustrated in Table 2.1 below:

Table 2.1   Mapping the music PCK of EY teachers against SEND pedagogy

PCK in music of EY teachers (Bremmer, 2021)	Needs of pupils with SEND & SEND pedagogy (see Sections 2.2 & 2.3)
Pedagogical orientations of teachers: • Imitational learning: learners observe teachers/peers and (unconsciously) imitate without verbal instruction • Experiential learning: learners experience rhythm with their whole body • Child-centred learning	• Learners can struggle to process verbal information (all SEND needs) • Intensive interaction teaching strategies work well with learners (PMLD) • Learners physically engage with music activities (all SEND needs) • Activities/approaches need heavily differentiating to meet needs and interests of learners (all SEND needs)
Teaching strategies: • Imitational modelling/scaffolding: heavy modelling at first before observing pupils and lightly guiding them verbally or non-verbally • Use of whole-body movements as part of a thematic approach • Repetition of/within activities • Use of multi-modal communication, specifically instructional, representational and guiding gestures alongside language	• Learners can struggle to process verbal information (all SEND needs) • Multi-sensory and active approaches to learning (all SEND needs) • Learners benefit from over-learning and repetition (all SEND needs) • Learners benefit from multiple approaches to communication (all SEND needs)
Understanding the music learning behaviours of EY pupils: • Keep learners engaged by providing variety within activities • Know which movements learners will find easy to synchronise with rhythm such as walking but not clapping • Keeping the beat is easier than melodic rhythm for learners • Learners will copy each other	• Learners respond well to variety, particularly if they are over- or under-stimulated by music (autism) • Learners present with a range of physical difficulties (all SEND needs)
Mapping the curriculum – long-term goals and aims: • Understand how EY pupils develop rhythmic skills and plan activities that facilitate this development • Differentiate activities/approaches	• Activities/approaches need heavily differentiating to meet needs and interests of learners (all SEND needs)
Assess the rhythmic behaviours of EY pupils: • Make use of observation • Haptic information: physically engage with pupils	• Teachers observe for small steps of development and sometimes minimal response to music (PMLD) • Learners require physical stimulation, particularly if they are under-stimulated by music (autism) • Learners present with a range of physical difficulties (all SEND needs)

The finding that teachers' movements to music are an important part of their PCK, including gestures they use to represent the beat, measure, rhythmic and melodic pattern of the music, is supported by other research (Davidson, Pitts & Correi, 2001; McCarthy, 2007; Young, 2009). A linguistic approach to teaching and learning that is typical of other subjects (Kerka, 2002) is not always appropriate to the teaching of music (Burnard, 2013; van den Dool, 2018) and is an approach that pupils with SEND struggle with (see Section 2.3). Although Bremmer's (2021) research has limited applicability to this study owing to the narrow focus on the teaching of rhythm as a musical concept and on the teaching of EY pupils, her findings were deemed most relevant to examining SEND music pedagogy in this study because of the similarities between EY music teaching and SEND music teaching, as depicted in Table 2.1. Bremmer's (2021) focus on rhythm was also deemed useful in identifying a list of musicianship skills for GTSS (see Section 2.5.3). This is in the absence of any known research regarding SEND music PCK and the limited amount of work into the PCK of in-service GTMS. The gap in knowledge in relation to this thesis therefore relates specifically to the PCK of in-service GTSS in SEND music. Whilst some research has been conducted into the music teaching contexts of GTSS, it fails to provide detailed findings related to their music teaching practices.

2.4.3 Insights into special school music provision

The Provision of Music in Special Education (PROMISE) report (Welch, Ockelford, Zimmerman, Himonides & Wilde, 2016) is, to the knowledge of the researcher, the only survey to review special school music provision in England and perhaps even internationally. It followed reports of GTSS lacking the subject knowledge and training to teach curriculum music. Research examining the Continuing Professional Development (CPD) experiences and needs of music specialist teachers working in special schools is almost as sparse, one recent study being from Hong Kong (Wong, 2016). Drawing upon the perspectives of music coordinators in special schools, the PROMISE survey examined who delivered the music curriculum and which pupils were accessing it. Around 60% of schools had written their own music curriculum and just over 15% had no music curriculum, echoing claims of inconsistency in the sector (Ockelford, 2008). Curriculum music was taught by GTSS in only 50% of schools with teaching assistants leading music teaching in 20% of schools, although it is unclear whether this was curriculum music

teaching or less formal music activities. In the case of the former, this figure is concerning because high-quality curriculum music teaching is arguably best delivered by qualified teachers with the professional knowledge and understanding of curriculum and assessment. Many schools (75%) had worked with external organisations (such as Jessie's Fund, n.d.; Live Music Now, n.d.) but it was not stated whether this was in place of GTSS delivering curriculum music. Only around half of schools noted some form of recent music CPD for GTSS, leading to conclusions that further staff training was a priority.

Despite being a significant piece of work within a largely unoccupied field of study, the PROMISE report has its limitations. Firstly, it is unclear whether the music coordinators surveyed were generalist or music specialist teachers, meaning its findings lack some relatability to this thesis. Secondly, only 5% of special schools in England responded to the survey meaning its findings are not generalizable across the special school sector. Furthermore, whilst the use of a survey meant relatively large volumes of quantitative data were gathered, this meant that in-depth information regarding participant views could not be gathered. Mawby (2018) did explore the views of music teachers and music therapists working in special schools regarding the similarities and differences between music education and music therapy. However, only one GTSS was interviewed and their responses were not analysed separately to other professionals, meaning findings are also not generalizable enough to draw conclusions relevant to this thesis.

Gaps in the research regarding SEND music pedagogy and provision amount to a lack of shared professional knowledge and understanding as to what high-quality music teaching in special schools looks and sounds like, and therefore how GTSS need to be trained to deliver this.

2.5 Teacher training and music education

Before the training needs of GTSS are considered, the definition of a generalist teacher as opposed to a music specialist teacher is outlined (Section 2.5.1). This thesis then defends its position in support of GTSS delivering curriculum music (Section 2.5.2) before determining areas of subject knowledge and musicianship skills GTSS need to teach music (Section 2.5.3). Factors that have

adversely affected generalist teachers in their delivery of classroom music are reviewed, drawing on research relating to GTMS in the absence of any SEND specific research (Section 2.5.4). This is then framed by a more detailed examination of the meaning and measure of self-efficacy and confidence in other music education research and how these terms relate to key constructs underpinning this study (Section 2.5.5). A body of work that documents training interventions with GTMS is then examined (Section 2.5.6), as are skills-based training models within teacher professional learning (Section 2.5.7), from which a training model in SEND music is then derived (Section 2.5.8).

2.5.1 Defining the term *generalist teacher* in the context of music education

The term *generalist teacher* refers to primary school teachers who are not music specialist teachers. The term has been used extensively in music education studies in this way (Biasutti, 2010; de Vries, 2013/2015; Garvis, 2013; Hallam, Burnard, Robertson, Saleh, Davies & Rogers, 2009; Hennessy, 2000; Mills, 1989) and with reference to teachers who teach all areas of the primary curriculum (Welch & Henley, 2014). In the context of this thesis, participants were identified as GTSS for both reasons. In contrast to this, the term *music specialist teacher* refers to teachers who have comprehensive training in the theory and performance of music, as well as more advanced pedagogical training in these areas (Byo, 1999) that stretches beyond statutory classroom music and into qualifications of GCSE and beyond. There is consensus within the literature that music specialist teachers are capable musicians (Kerchner, 2006a; Mills, 2004) with levels of musicianship that illustrate their knowledge and skills 'in the practice of musical performance' (Freer & Bennett, 2012, p.266).

There are those in favour of music specialist teachers delivering curriculum music in primary schools owing to discrepencies between the declared levels of confidence of GTMS to teach music and the poor quality of their practice (Wiggins & Wiggins, 2008). Having music specialist skills, however, does not necessarily make someone an effective or confident teacher of music (Henley, 2017; Hennessy, 2000/2017; Jeanneret & Degraffenreid, 2012) and is 'only one aspect of the whole picture…even those with specialist music qualifications will find that they will need to develop their pedagogical understanding to apply and adapt their knowledge and

skills in quite new ways' (Hennessy, 2017, p.696). In other words, knowing how to teach music, drawing upon PCK that is specific to classroom contexts, is a key part of high-quality music teaching for any teacher. There has typically been a stronger consensus over time in support of generalist teachers delivering primary curriculum music (Binns, 1994; Hennessy, 1994) and some direct criticism of music specialist teachers doing so (Small, 1996).

2.5.2 Making the case for GTSS

In the context of this study, it is contested that GTSS are best placed to deliver music teaching that is child-centred owing to their general, expert SEND pedagogy (see Section 2.2), combined with their personalized knowledge of pupils and their complex learning profiles (see Section 2.3). Competent music teaching in any setting consists of both general and musical components (Ballantyne & Packer, 2004; Saetre, 2018; Teachout, 1997). Effective teachers of music may therefore need to be interdisciplinarian in their approach, meaning they require 'a more eclectic knowledge base' (Barrett & Veblen, 2012, p.366) and must be 'critically conversant in both the means and ends of musical instruction' (Bowman, 2012, p.27). There must be an 'integrated whole with a best practice pedagogy that is learner-centred and mindful of the multiple ways children learn' (Jeanneret & DeGraffenreid, 2012, p.410). In an Italian study that compared the music teaching beliefs of generalist and specialist secondary music teachers, generalist teachers prioritized a learner-centred over a teacher-centred approach (Biasutti, 2012).

Based on research with GTMS, it is also argued that if GTSS teach curriculum music it will positively change their perceptions of the subject and of their ability to teach it. Firstly, this is because the teaching of music by generalist teachers normalizes the image of music as a subject that is for all children, to be taught by all teachers (Mills, 1989/1996). This supports the belief underpinning this study that all teachers are capable of teaching music as natural musicians (see Section 1.0). Secondly, GTMS have been seen to enhance their subject knowledge and skills in Geography, and teach the subject better, if they appreciate the value it has in the education of their pupils (Lee, 2018). The fact that music is reported to be highly valued in this way in special schools, as evidenced in some research (Ockelford, 2008; Welch et al., 2016) and as known anecdotally through the researcher's professional experience (see Section 1.1), indicates a strong possibility

that GTSS have the potential to develop their music teaching. Finally, after having been adequately trained to teach the subject (Varvarigou, Creech & Hallam, 2012), GTMS are more inclined to see music teaching as their responsibility and not that of specialist teachers (Hallam et al., 2009). Music then 'permeates the whole community and sits alongside and within other subject areas as a full member of the curriculum' (Hennessy, 2006, p.23), resulting in enhanced learning experiences for pupils (Russell-Bowie, 2012). GTMS have voiced enthusiasm to develop their musical skills and music subject knowledge so they can teach music better (Hallam et al., 2009; Stunell, 2010). It is now important to consider what these areas of skill and knowledge are in relation to GTSS so they can develop the PCK to teach SEND music fluently and autonomously.

2.5.3 The musicianship of GTSS

In the context of this study, it was contested that if GTSS were to teach as musicians they needed the subject knowledge and practical musicianship skills to do so. School is a place 'where pupils get used to consolidating their knowledge (learning) and experience (doing and practicing)' (Sgambelluri, Ambretti, Pallonetto & Palumbo, 2021, p.2064). Teachers therefore need to be able to promote musical fluency and teach music musically (Swanwick, 1999) evident by their 'ability to share, produce and collaborate in the production of [music]' (Swanwick, 2008). However, specific aspects of subject knowledge and classroom musicianship that are required of generalist teachers to teach music are not well documented or easily deciphered. Constructing a list of areas of subject knowledge and practical musicianship skills that would constitute SEND music training for GTSS in this study therefore meant drawing upon a range of music education philosophies and models of musical development.

The emphasis on practical musicianship in the training model delivered within this study was theoretically underpinned by the concept of *musicking*. This is defined as 'to take part, in any capacity, in a musical performance, whether by performing, by listening, by rehearsing or practicing, by providing material for performance (what is called composing), or by dancing' (Small, 1998, p.9). This theoretical position aligns closely with that of Henley (2017), in the way she drew upon six interlinked theoretical perspectives to define being musical as being engaged in active music making. Active music making encompasses all the possible

ways pupils with SEND may respond to, interact with and make music (see Section 2.3), meaning they can demonstrate their musicianship practically without having to verbalise what they know (Henley, 2015). By adopting an active approach to their music training, the mentor not only equipped GTSS with the practical musicianship skills and subject knowledge to make music happen for pupils with SEND, but trained GTSS using methods of active music making that they could then emulate with their pupils. In her review of music training within primary ITT, Hennessy (2017) summarised the active music making skills, including the classroom musicianship skills, required of GTMS based on the content of 21 different ITT courses. Whilst her research certainly offered more clarity than other studies have in terms of the musicianship content of GTMS music training models and the impact of this on music teaching competency (see Appendix 2.1 for a full review of this), her findings leave some ambiguity regarding the smaller steps of development generalist teachers progress through in order to develop 'a sense of pulse and rhythm' and 'aural discrimination and acuity' (Hennessy, 2017, p.695). Further to this, only fleeting reference is made by Hennessy (2017) to generalist music teaching in the SEND context, leaving a clear research space that the present study sought to fill by proposing a cumulative list of music subject knowledge and musicianship skills that GTSS require in order to teach SEND music competently. The accuracy of this could then be tested by reporting on the changing music teaching actions of GTSS participants as they engaged with a training and mentoring intervention in SEND music.

The musicianship content of the skills-based training intervention in this study was informed initially by how pupils, and then SEND pupils specifically, develop musicianship. This approach was taken because it was determined that if GTSS were to lead and model classroom music as musicians for their pupils, they would require a framework of musical skills that met the needs of their music teaching contexts. Planning the musicianship training within this study started with the work of Zoltán Kodály (1882-1967), although it should be noted that participants were not trained specifically in the Kodály method. Kodály's philosophy and approach to music education is based on a broad set of musical skills that children learn in order to develop as musicians, these being practised using appropriately selected musical repertoire. These musical skills are singing, inner hearing, movement, music reading and writing, improvisation, composition, part work, form,

memory, listening, conducting, instrumental development, harmonic development and terminology (Houlahan & Tacka, 2015). Within the context of this study, it was felt that training teachers in all of these skill areas was not appropriate because certain skill areas such as the reading and writing of music (beyond simple graphic notation), and harmonic development and form, were deemed beyond the capabilities of pupils in the sample classrooms because of their complex learning needs or young age (see Section 2.3).

Although some pupils with SEND struggle to use and understand music terminology, some terminology was included in GTSS training because it was important for teachers to use this to interpret their own musical actions and accurately appraise the musical work of their pupils. This idea is supported in the literature with GTMS; Beauchamp (2010) stated that GTMS should have an understanding of, and be able to appraise pupils' understanding of, the musical elements. Teachers were trained to understand and use two main terms - pulse and rhythm - based on research that has identified these as integral to early music development (Ibbotson & See, 2021). Similarly, Bremmer (2021) identifies 'performing rhythm aspects vocally or instrumentally, synchronising (dance) movements to an external musical source or moving rhythmically and improvising in a rhythmic manner' (Bremmer, 2021, p.121) as key musical skills that children, including EY children, should learn. Given pupils with SEND generally work musically at developmental levels on par with typically developing EY children (Sounds of Intent, n.d.), identifying rhythmic development as fundamental to the musical development of EY children emerged as relevant to this research context in terms of determining the likely subject knowledge needed of GTSS to teach music.

To the knowledge of the researcher, the Sounds of Intent (SoI) project (Sounds of Intent, n.d.) is the only significant piece of research that has examined and outlined the musical development of children with learning difficulties and disabilities. Its framework of musical development identifies three domains in which all people engage with music, each domain being formed of six levels of musicianship; children with the most severe and profound learning needs, such as those within the sample classrooms, largely work within the first three levels. There are some similarities with the areas of musicianship identified within Kodály's work and by Bremmer (2021), meaning these were most relevant to a model of musicianship training for GTSS: react to and make simple patterns in sound; copy

sounds; recognise, reproduce and create musical motifs that may be linked together; respond to general characteristics of music; perform, improvise and compose short and simple pieces of music, perhaps with other people. Despite these similarities, the SoI framework is largely focused on pupils' engagement with and response to music rather than their specific musicianship skills. For the purpose of identifying the musicianship skills of pupils with SEND and therefore the music training needs of GTSS, it was determined that these areas from SoI were best combined with the more typical models of musical development examined earlier in this section.

West (2015) developed a model of musicianship in his work with beginner big band players that is made up of five distinct areas of musicianship: rhythmic ability, tonal ability, executive skills, notation-reading ability and creativity. For the purposes of this study and GTSS participants, the areas of rhythmic ability and tonal ability helped to identify a sequential list of musicianship skills that informed their training (see Table 2.2), underpinned by the broader areas of musicianship from Kodály, Bremmer (2021), Ibbotson and See (2021), and SoI:

*Table 2.2   Sequential list of musicianship skills for GTSS (derived from the work of **Kodály**, Bremmer (2021), Ibbotson & See (2021) and SoI)*

Rhythmic ability	Tonal ability
• Move body using large and then small movements to feel the space between beats/the pulse • Tap the pulse • Silently audiate a rhythm inside head and raise hand when at end of rhythm • Clap or play back different rhythms • Clap or play rhythms in duple and triple time • Improvise own rhythm as part of call and response • Keep the pulse/rhythm whilst others play a different rhythm • Compose own rhythms	• Pitch-match a note using voice • Identify which note is higher out of a choice of two • Label three notes as high/middle/low after they are played or sung • Sing a simple three-note melody in tune • Silently sing/hum a simple three-note melody inside head and then sing last note aloud correctly • Sing the tonic note of a simple three-note melody back at various points during the melody as it is sung by someone else • Sing a more complex melody in tune • Improvise/compose own melody (for example as part of vocal call and response activity)

Professional reflection on her role as music leader in the research school and in previous schools led the researcher to hypothesise that participants lacked many of these areas of music subject knowledge and classroom musicianship skills, resulting in a lack of confidence to teach music (see Section 1.1). Studies that illustrate the concerns GTMS have regarding their music teaching competencies are now examined, providing some indication as to why GTSS may also face similar anxieties about this aspect of their practice.

2.5.4 Factors relating to the skills and confidence gap of generalist teachers

Research over the past three decades has consistently documented the lack of confidence GTMS have to teach music, with studies predominantly from England (Hennessy, 2000; Holden & Button, 2006; Mills, 1989; Seddon & Biasutti, 2008; Stunell, 2010; Welch & Henley, 2014) or elsewhere in Europe (Biasutti, 2010) and Australia (Auh, 2004; Ballantyne, 2006; de Vries, 2013; Jeanneret, 1997). A large-

scale study that surveyed almost 1000 GTMS also compared the situation in multiple countries (Russell-Bowie, 2009). Issues of low confidence are partly attributed to the belief systems and assumptions GTMS have regarding musical expertise and talent that they bring with them into the classroom (Green, 1988). There exists a generally held belief amongst GTMS (Lamont, 2011; Seddon & Biasutti, 2008) that musical talent is predetermined in some way (Sloboda, 2005) and that there are a chosen few who are inherently musical (Biasutti, 2010; Hennessy, 2000). This is despite extensive evidence from the field of music psychology that proves all individuals are capable of acquiring musical expertise (Hargreaves, MacDonald & Miell, 2012; McPherson & Hallam 2009; Scripp, Ulibarri & Flax, 2013) as a result of practice, effort and self-efficacy (Lamont, 2011). GTMS therefore perceive music as a specialist discipline to teach (Hennessy, 2000; Holden & Button, 2006) and a subject beyond their skill set (Seddon & Biasutti, 2008), more so than other arts subjects (Hennessy, 2000).

Experiences of musical failure (Lamont, 2002) and having been labelled as musically gifted or not earlier in life (Green, 2001/2008; Knight, 2010; Pitts, 2012; Welch & McPherson, 2012) are also known to have had adverse effects on the musical identity of GTMS and therefore on their identity as teachers of music. Their own school music education experiences are likely to have been of varying quality (Hallam et al., 2009; Henley, 2017; Lowe, Lummis & Morris, 2017; Saunders & Welch, 2012) and based on Western classical music (Welch & Henley, 2014), resulting in a persistent 'misconception that musicality is defined by success in Western art music' (Welch, 2021, p.1974). Changes to the national curriculum in music in 2014 are said to further promote the link between classical music, talent, musicality and expertise (Bate, 2020), meaning future generations of GTSS may feel distanced from teaching music as a result of low musical self-concept and therefore lack identity as teachers of music.

A persistent lack of music training during ITT (Byo, 1999; Garvis, Twigg & Pendergast, 2011; Varvarigou, Creech & Hallam, 2012) has failed to address issues that may have arisen as a result of early music education experiences that were not as positive and enabling as they should have been (Welch & McPherson, 2012). Time allocated to music during ITT is typically limited and constantly under threat (Ehrlin & Wallerstedt, 2014; Hallam et al., 2009; Zeserson, Welch, Burn, Saunders & Himonides, 2014). Limited opportunities to observe and teach music whilst on

teaching placements (Hennessy, 2017; Stunell, 2010; Welch & Henley, 2014) has deprived trainee GTMS of experiencing a cognitive apprenticeship model through which learning to teach music is a 'process of enculturation where authentic activities provide students with important insights into professional thinking and practice' (Hennessy, 2000, p.185). This situation has left trainee GTMS feeling unprepared to teach music (Hallam et al., 2009) owing to gaps in their subject-specific pedagogy and their skills to critically engage with this pedagogy (Daubney, Spruce & Annetts, 2019; Welch & Henley, 2014). Trainee GTMS also typically overestimate the skills needed to deliver effective primary curriculum music (Daubney, 2017; Mills, 1989; Seddon & Biasutti, 2008) and perceive their musical abilities as fixed (Biasutti, 2010; Jeanneret, 1997). A lack of opportunity to see experienced GTMS teach music means that trainees do not have the opportunity to challenge their misconceptions. This lack of early training is concerning, given its fundamental importance for building pedagogical and musical skills in teachers (Biasutti, Frate & Concina, 2019). It may also leave trainees to conclude that generalist teachers do not teach music (Hennessy, 2017), incidentally providing them with a form of relief from doing so (Stunell, 2010) as they enter the profession.

In their first three years post-qualification, GTMS report a further decline in their confidence to teach music compared with other subjects such as English and Maths (Garvis, 2013). This suggests GTMS have more contact with mastery experiences in these subjects (Bandura, 1997), arguably as a result of more teaching time and training. Figures indicate that only 15% of GTMS have access to regular music CPD (Zeserson et al., 2014). There is a distinct lack of music subject knowledge enhancement courses for GTMS (Daubney et al., 2019) despite recommendations for these (DfE, 2015) and government reports raising the profile of music education (Henley Review, 2011; DfE, 2011/2021). Garvis and Pendergast (2012) describe this as the 'gap between policy rhetoric for music…and the pedagogical reality in generalist classrooms' (p.107). GTMS also report system factors (Jeanneret & Degraffenreid, 2012) such as poor resourcing and teaching environments (Holden & Button, 2006), as well as a lack of timetabled music teaching indicating the low status of music within their schools (Russell-Bowie, 2009). Many rely on prescriptive schemes of work involving recordings and lesson plans but struggle to interpret these resources due to poor subject knowledge (Holden & Button, 2006) and a lack of technical expertise (Bott & Westrup, 2011).

This skills and knowledge deficit (Daubney et al., 2019), and feelings of musical inadequacy as a result of limiting experiences of music education at school and within ITT, therefore remain unaddressed. Musical ability, as well as feelings of musicality and self-efficacy, emerge as a result of practice and it is clear that GTMS, and therefore inferred that GTSS, are deprived of the opportunity to address this because they lack experience of and access to a professional learning community in music education.

Aligned with others in the music education field (Lamont, Daubney & Spruce, 2012; Henley, 2017), the researcher maintains that generalist teachers are capable of delivering good quality music teaching, despite the obstacles they face. Further to this, it is argued that GTSS are in fact better placed to deliver curriculum music teaching in special schools rather than subject specialist teachers (see Section 2.5.2) if adequately trained and supported to do so. By focusing on their subject knowledge and musicianship skills, and implementing training specific to their teaching context (Henley, 2017), it was felt that GTSS were able to develop the skills and confidence to teach music well. It was, however, crucial to understand the kind of training GTSS would need, owing to the highly specialist music pedagogical knowledge required to meet the needs of learners in special schools (see Section 2.3), and in the absence of professional support in this area (see Section 2.4). GTSS were likely to need training to develop their subject knowledge and classroom musicianship, and to convert this into PCK. This was important because their GTMS colleagues view subject knowledge and skills as key predictors to credible music teaching (Holden & Button, 2006). They were also likely to need encouragement to develop confidence and self-efficacy in order to move away from any assumption that they were not effective music teachers and that music specialist teachers were (Stunell, 2010). Increasing levels of self-efficacy amongst GTMS has been important so that they do not avoid teaching music (de Vries, 2013; Kraay, 2013) but instead teach more elements of the music curriculum (Saetre, 2018), persist in the face of obstacles and provide higher-quality learning experiences for pupils (Bandura, 1997); the same was inferred for GTSS in the context of this study. In order to report on this hypothesis it was important to define self-efficacy and confidence, exploring how these relate to competence and how they have been measured in other music education research.

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2.5.5 Examining the constructs of self-efficacy and confidence amongst generalist teachers

Self-efficacy beliefs can be defined as individuals' beliefs in their ability to 'execute the actions necessary to achieve a desired goal' (Gallagher, 2012, p. 314) or to 'produce given attainments' (Bandura, 2012, p.15). It is 'a future-oriented belief about the level of competence a person expects he or she will display in a given situation' (Tschannen-Moran, Woolfolk Hoy & Hoy, 1998, p.207). Individuals with high levels of self-efficacy view challenging tasks or situations as something to be mastered, whereas those with low levels of self-efficacy avoid such situations, viewing them as threats (Bandura, 1986). Self-efficacy beliefs therefore relate to an individual's self-perception of their levels of competence rather than a measure of their actual levels of competence. Self-efficacy is 'concerned not with the skills one has but the judgements of what one can do with whatever skills one possesses' (Bandura, 1986, p.391). Many factors play a role in the development of self-efficacy, including the impact of past experiences and goals achieved as part of these, as well as individuals' values and attitudes (Bandura & Locke, 2003; Bandura, 2012; Woolfolk Hoy, Davis & Pape, 2006; Scheer, Scholz, Rank & Donie, 2015). These external sources shape an individual (Polkinghorne, 2015) as they 'internalise values and attitudes based on their experiences and socio-cultural conventions' (Morris, Lummis, McKinnon & Heyworth, 2017, p.2). Self-efficacy beliefs influence individuals' pursuit of goals as well as their ability to 'persist in the face of adversity, rebound from temporary setbacks, and exercise some control over events that affect their lives' (Tschannen-Moran, Woolfolk Hoy & Hoy, 1998, p.210). Self-efficacy beliefs are distinct from other terms such as self-esteem because they are specific to a particular task (Tschannen-Moran, Woolfolk Hoy & Hoy, 1998). By contrast, self-esteem relates to an individual's positive and negative self-perceptions (Rosenberg, 1979) and is linked to feelings of self-worth or self-liking (Gist & Mitchell, 1992). It is a term that is framed by constructs of self in relation to importance, success and value (Gini, Pozzoli & Hymel, 2014).

Teachers' self-efficacy relates to their 'beliefs in their ability to effectively handle the tasks, obligations, and challenges related to their professional activity [and] plays a key role in influencing important academic outcomes' (Barni, Danioni & Benevene, 2019, p.1). Generating and sustaining changes to the efficacy beliefs of experienced teachers is usually more challenging than that of trainee or newly

qualified teachers (Tschannen-Moran, Woolfolk Hoy & Hoy, 1998). The efficacy beliefs of experienced teachers appear to remain in a provisional state, 'testing their newly acquired knowledge and skills before raising their judgments of what they are able to do' (Bandura, 1997, p. 83). Teachers with high levels of self-efficacy are typically effective classroom practitioners who set higher goals for themselves and their pupils (Ashton, 1985; Bandura, 2015; Hoy, Tarter & Woolfolk Hoy, 2006), leading to improved pupil outcomes (Hoy & Woolfolk, 1990/1993; Klassen, Bong, Usher, Har Chong, Huan & Wong, 2009; Klassen & Tze, 2014). As professionals, they believe they have the capacity to affect student achievement (Buckner, 2008) and to influence how all students learn, 'even those who may be difficult or unmotivated' (Guskey & Passaro, 1994, p. 4). Teachers with high levels of self-efficacy also report feelings of increased accountability (Ashton, 1985) and show a higher level of professional commitment (Coladarci, 1992). They use innovative teaching approaches (Fuchs, Fuchs & Bishop, 1992; Moeller & Ishii-Jordan, 1996), trial a wider range of teaching strategies (Allinder, 1994) and become more pupil-centred in their practice (Dembo & Gibson,1985; Gibson & Dembo, 1984).

Bandura (1997) stated that self-efficacy beliefs are influenced by four sources: mastery experiences, vicarious experiences or modelling, verbal persuasion, and physiological or emotional arousal. Mastery experiences are known to have the strongest impact on levels of self-efficacy (Bandura, 1997; Tschannen-Moran & Woolfolk Hoy, 2001), although in beginner or early career teachers 'other sources will likely have the greatest impact early in learning when fewer mastery experiences are available' (Tschannen-Moran & Woolfolk Hoy, 2007, p.947). Vicarious experiences are most impactful when the observer has the opportunity to identify skills with the modeler, whilst 'the potency of verbal persuasion depends on the credibility, trustworthiness and expertise of the persuader' (Bandura, 1997, as cited by Garvis, 2011, p.118). Garvis, Twigg and Pendergast (2011) used Bandura's (1997) self-efficacy framework to illustrate the impact of inadequate teacher training in music on trainee GTMS. As explained by Carroll and Harris (2022), Garvis, Twigg and Pendergast (2011) highlight how trainees lacked direct experience of teaching music (mastery experiences), a problem exacerbated by a lack of demonstration and modelling from more experienced teachers (vicarious experiences). They were then deprived of any positive feedback (verbal persuasion) resulting in a lack of ownership to teach music (emotional or psychological arousal). Emotional arousal

has been defined and measured in different ways in the context of GTMS music training studies. De Vries (2013) defined it as a teacher's response to a given situation which can include anxiety or excitement, it therefore being a source of self-efficacy. In contrast to this, Carroll and Harris (2022) have more recently defined it as a teacher's identification or ownership for their professional development in music, this presenting as more of an outcome or indicator, rather than source of, increased self-efficacy. In the present study, whilst both were important, the perspective shared by Carroll and Harris (2022) was most relevant given concerns that GTSS participants may have distanced themselves from curriculum music as a result of low levels of perceived efficacy as musicians and as teachers of music (see Section 2.5.4).

Quantitative measures have typically been used to define and measure changes in teacher efficacy, and initially grew from Rotter's (1954) social learning theory (Tschannen-Moran, Woolfolk Hoy & Hoy, 1998). At first, these quantitative methods were fairly restrictive, producing results of limited applicability and reliability beyond the context of the research (Armor et al., 1976; Berman et al., 1977). Further studies aimed to develop more comprehensive measures and built on the conceptualisation that teacher efficacy was based on teachers' beliefs that their actions and decisions had a greater impact on learning than factors related to the environment or students themselves. Some of this later research included a 28-item measure called the Teacher Locus of Control (Rose & Medway, 1981), a 30-item measure called the Responsibility for Student Achievement (Guskey, 1981) and the Web Efficacy Scale (Ashton, Olejnik, Crocker & McAuliffe, 1982).

A school of thought that developed from Bandura's (1977) social cognitive theory began to view teacher efficacy as a type of self-efficacy. Gibson and Dembo (1984) developed a 30-item measure of teacher self-efficacy from this called the Teacher Efficacy Scale (TES) that generated a more distinct focus on the differences between personal self-efficacy and general self-efficacy. Personal self-efficacy relates specifically to an individual's beliefs about themselves whilst general self-efficacy, specifically in the context of teaching, relates to teachers' beliefs in their ability to generate a change for and amongst their pupils, regardless of external factors such as home life (Narvaez, Vaydich, Turner & Khmelkov, 2008). Bandura also developed his own Teacher Self-Efficacy Scale (1997) which measured teachers' efficacy in relation to: decision making, influence over school resources,

instruction, discipline, parental involvement, community involvement and creating a positive school climate. Other measures that have developed over the past two decades have strengthened the field, including the Teachers Sense of Efficacy Scale (TSES – Tschannen-Moran & Hoy, 2001) and the Classroom Assessment Scoring System (Pianta, Belsky, Vandergrift, Houts & Morrison, 2008), providing what are viewed as more reliable measures of the connection between teacher self-efficacy and effective teaching practice (Kuusinen, 2016). The TES and TSES have reportedly been the most widely used measures of teacher efficacy in many studies (Buckner, 2008; Klassen, Tze, Betts & Gordon, 2011; Klassen & Tze, 2014). Despite their prevalence within the field of teacher efficacy research, the validity and reliability of quantitative measures has been questioned in light of how these generalise definitions of efficacy (Wyatt, 2014). This is viewed by some as problematic because teacher efficacy and teacher self-efficacy are concepts that are variable between individuals and subdomains of teaching, including subject areas (Morris, Lummis, McKinnon & Heyworth, 2017; Tschannen-Moran, Woolfolk Hoy & Hoy, 1998).

Poor self-efficacy beliefs for teaching music amongst primary trainee teachers have been attributed to trainees' limited and negative experiences of their own school music education and inadequate teacher training (see Section 2.5.4). Teaching music relies upon a mastery of practical musicianship skills and so teachers who do not perceive that they have mastered some level of musicianship, most likely because of their past musical experiences, are known to display low efficacy for teaching music (Garvis & Pendergast, 2010; Lowe, Lummis & Morris, 2017; Morris & Lummis, 2014). Feelings of poor self-efficacy are then likely to inhibit or limit what teachers do in their music lessons (Barr, 2006; Giles & Frego, 2004; Lummis, Morris & Paolino, 2014), triggering teachers to describe themselves as unmusical and untalented, a damning self-appraisal 'typically coupled with fears and misconceptions about teaching music' (Carroll & Harris, 2022, p.1). Self-perceptions of musical ability positively influence the variety of music education activities generalist teachers facilitate in their classrooms (Battersby & Cave, 2014; Buckner, 2008; Carroll & Harris, 2022), indicating that teachers' feelings about their own musicality and ability to engage as musicians in the classroom directly affect the quality of classroom music teaching they deliver (Garvis, 2011).

Self-efficacy may be linked to the notion of mindset. Dweck (2017) identified two types of mindsets for learning. A fixed mindset relates to individuals who believe their abilities are set, who feel the need to prove themselves and who focus on the risk of failure. In contrast to this, a growth mindset relates to those who feel that effort and training can improve performance, and who can acknowledge, reflect upon and use error to their advantage. Despite the importance of error within the process of human learning, many people – particularly those with a fixed mindset – view failure or criticism as a source of shame or embarrassment (Schulz, 2010). It is contested that in the context of music teaching it is important for teachers to adopt a growth mindset in relation to their own musicianship as this will embed a classroom culture where pupils challenge themselves and take risks with their learning, or 'authorize them to do things of which they are uncertain' (Weidner & Skolar, 2021, p.24). Recent studies have explored the concept of growth mindset in the music classroom (Weidner & Skolar, 2021) including the generalist music classroom (Davis, 2016), but from the perspective of increasing pupils' self-efficacy as musicians. Whilst low levels of confidence and self-efficacy for teaching music amongst GTMS is a topic well documented within the literature (see Section 2.5.4), the concept of mindset in relation to generalist teachers' musical competence and music teaching competence, and how this can be positively influenced by training, is less well understood. In relation to GTSS, it appears that this is an area of enquiry not yet addressed within any other research.

In the context of this study with GTSS participants who were likely to have fixed mindsets towards their own musicianship as a result of their early experiences (see Section 2.5.4), an approach to building a growth mindset culture was derived from a study by Davis (2016) that focused on nurturing pupils' growth mindset in the music classroom. In order to promote an environment in which error and struggle were used for reflection with GTSS participants, training focused on: the process of (rather than product from) learning in order to generate a perseverance for learning amongst participants; providing participants with plenty of opportunities to experiment with new ideas in low-stress and fun ways; developing participants' musicianship skills through distributed learning whereby practicing new skills is based on a little and often approach; allowing participants to learn through struggle and problem-solve for next time whilst being empathetic; modelling reflection and metacognition whereby participants could talk through the mentor's thought

processes and strategies; participants' engagement with active, hands-on and collaborative music learning opportunities (Davis, 2016, p.14-15). These elements were therefore key within the design of skills-based training and mentoring (see Section 2.5.7).

Mirroring a general trend within teacher efficacy research, studies have typically applied quantitative measures to examine generalist teacher self-efficacy for teaching music, although this approach has attracted criticism (Morris 2015). Some have simply captured existing levels of self-efficacy for teaching music amongst trainee (Lummis, Morris & Paolino, 2014) and beginner (Garvis, 2013) GTMS, whilst others have measured changes in the levels of self-efficacy for teaching music amongst trainee GTMS after a programme of music training within their ITT (Buckner, 2008; Morris et al., 2017). Other research has employed mixed methods (Garvis & Pendergast, 2010; Russell-Bowie, 2012) or purely qualitative tools (Morris & Lummis, 2014) to report on the impact of past experiences on trainee and in-service GTMS' levels of self-efficacy for teaching music. De Vries (2013) reported qualitatively on the past and current music teaching experiences of five in-service GTMS with the aim of identifying how high self-efficacy for teaching music could be achieved. In line with Bandura (1997), he found that mastery teaching experiences or teaching accomplishments were the most impactful upon levels of self-efficacy amongst all five participants, a finding that has been echoed in more recent research involving GTMS (Carroll & Harris, 2022). Verbal persuasion from parents, teaching peers and school leaders, and vicarious experiences facilitated by professional development experiences from experts viewed as credible to teachers, were also firm influencing factors on the development of self-efficacy beliefs (de Vries, 2013).

Wagoner (2015) developed a quantitative instrument to define and measure self-efficacy and commitment amongst music specialist teachers, and examined these as constructs of music teacher identity. Music teacher self-efficacy was defined by five dimensions related to confidence and autonomy: being secure in one's own abilities; consistently setting achievable goals and priorities; managing time effectively; being able to problem solve; being able to persevere through adversity. Music teacher commitment was derived from other dimensions that included: involvement in teaching activities and other professional activities; use of personal resource of time, energy and/or money; attitude and investment towards professional music teaching goals. Whilst her study related to music specialist

teachers and did not explore in-depth reasons behind teacher responses due to its quantitative nature, Wagoner's (2015) construct map of observable teacher actions does provide a detailed framework that encapsulates the development of teacher identity in the music education context. In terms of the present study, Wagoner's (2015) research therefore presented a model against which to compare GTSS actions and behaviours as indicators of their growing identity as teachers of SEND music, providing an insight into domain specific behaviours (Bandura, 2006) that are congruent with GTSS who have high levels of self-efficacy for teaching music.

The focus within this study was to identify factors that have contributed to the formation of self-efficacy beliefs of in-service GTSS to teach music, and to examine if and how these beliefs can be reversed as a result of skills-based musicianship training, answering calls for more research in this area (Garvis, 2013). The positive impact of music methods or music fundamentals courses on the competency and confidence levels of trainee GTMS has been well documented within other research (see Section 2.5.6), framed by research that has highlighted the significance of competence on the acquisition of confidence in the context of music teaching (Bartel, Cameron, Wiggins & Wiggins, 2004). It was determined that cultivating self-efficacy beliefs amongst GTSS in this study would therefore involve a skills-based intervention in classroom musicianship. This decision was also based on the researcher's own professional concerns that GTSS colleagues lacked subject knowledge and skills (see Section 1.1) and the broader literature that links the acquisition of skills and technical knowledge to higher levels of self-efficacy (Bandura, 1986; James, 2017). As well as understanding how participants' levels of self-efficacy improved as a result of their engagement with a skills-based intervention, it was also important to examine which specific elements of their training and mentoring experiences were most impactful upon their changing beliefs and attitudes towards this aspect of their practice so that the proposed SEND music training model could feasibly be replicated in other special school settings. Bandura's (1997) self-efficacy framework was therefore used to illustrate the kinds of music teaching experiences that promoted mastery experiences and therefore positively contributed to the formation of self-efficacy beliefs for teaching music, an area of enquiry that has not yet been explored with GTSS, only trainee (Garvis, 2011) or novice (Carroll & Harris, 2022) GTMS. It also shaped training priorities in

terms of offering opportunities for vicarious experiences and verbal persuasion with the SEND music specialist mentor (see Section 3.6.6).

Music education research has generally focused on reporting low levels of confidence to teach music amongst GTMS (see Section 2.5.4) and on efforts to improve levels of confidence through training and mentoring (see Section 2.5.6). Poulter and Cook (2022) highlighted the importance of providing trainee GTMS with the opportunity to observe, trial, reflect upon and analyse music teaching practice with others in order to increase their levels of music teaching confidence, findings that informed the design of training within the intervention phase of the present study (see Section 3.6.6). Less attention has been paid within the research to exploring changes in the actions and behaviours of generalist teachers as they build their confidence to teach music, thereby defining what confidence in the generalist music teaching context looks and sounds like.

Thorn and Brasche (2020) defined and measured changes in the confidence levels of 11 in-service GTMS by collecting pre- and post-intervention survey data related to their: perceived musical skill set; initiative; creativity; self-perception as musicians. Musical skill set was measured using statements that related to broad areas of the music national curriculum including listening and moving to music, singing, composing and performing using simple percussion instruments, skills that link closely to the list of musicianship skills for GTSS identified earlier (see Table 2.2). Indicators of improved initiative in the music classroom equated to being able to source and adapt repertoire, resources and everyday items. Statements related to creativity were a little vague and not always specific to classroom teaching, but interestingly were based on teachers' enjoyment of teaching music and on their use of music in other curriculum areas. Linking teacher confidence to teacher enjoyment in the generalist music teaching context is a theme found in other research (Carroll & Harris, 2022; Ebbeck, Yim & Lee, 2008) and is echoed by studies from other practical subjects such as dance (Rolfe, 2001). Teachers' levels of self-perception as musicians were based on perceptions they had about their own singing voice, their singing habits at home, their own and other's perceptions of their musicality, and if they were comfortable to be 'spontaneously silly' (Thorn & Brasche, 2020, p.45) in the music classroom. Given the lack of other research that has defined and measured generalist teacher confidence for teaching music, and in the absence of any known such research with GTSS, the work of Thorn and Brasche (2020) is built

on in the context of the present research to examine and discuss changes in participants' confidence levels to teach music, drawing upon detailed qualitative data as a means of representing their voice and the depth of their music teaching experiences.

Self-efficacy and confidence are constructs that are formed from musical competence, and are connected in the context of generalist music teaching (Chokera, 2016; Lowe, Lummis & Morris, 2017). They are therefore critical to this study in terms of evaluating the impact of a training and mentoring intervention on participants' changing identity as teachers of SEND music. Following on from the initial body of research that documented low self-efficacy amongst GTMS as a result of gaps in their skills and confidence (see Section 2.5.4), further studies report on the design, implementation and impact of music training interventions aimed at addressing the skills and knowledge gap of GTMS. In light of the notable lack of literature relating to the music training needs of GTSS, this body of work is now reviewed.

2.5.6 A review of teacher training models in music

Even though much attention has been paid to the music training needs of trainee and in-service GTMS, it is difficult to compare studies and therefore reach a consensus on how to effectively train generalist teachers. This is largely because the content and approach of different training models, along with specific changes in the subject knowledge and classroom musicianship of participants, are not well documented. Jeanneret (1997) reports on the impact of a music fundamentals course on the confidence levels of over 200 trainee GTMS. Whilst the significant gains in their self-perceived levels of musical literacy and confidence for teaching music were clearly positive, an omission of details regarding the specific 'prerequisite musical skills and knowledge' (Jeanneret, 1997, p.38) required to achieve this leads to questions regarding which areas of knowledge and skill were pivotal within this change. Likewise, Auh (2004) mentions that music training 'focused on teaching musical concepts through various musical activities including singing, instrumental playing, composing, and listening' (Auh, 2004, p.14) but does not detail which musical concepts or what these activities involved. Russell-Bowie (2013) and Biasutti, Hennessy and Vugt-Jansen (2015) do outline specific approaches to

training that participants reported had most impact on their confidence levels but again, a focus on subject knowledge and musicianship within this training is omitted.

Much research up until this point was also seen as too heavily reliant on self-reporting by participants (Power & Klopper, 2011; de Vries, 2013; Wiggins & Wiggins, 2008). There had been a lack of researcher-led observation of the developing music teaching practices of GTMS and consequently, a lack of challenge from the research community on their actual training needs and how to address these. Other studies do verify changes in the subject knowledge and classroom musicianship skills of GTMS through classroom observation but lack discussion of how teachers convert this competence into PCK, an important concept within the context of this thesis given the complex music learning needs of pupils with SEND. Seddon and Biasutti (2008) report in detail how three trainee GTMS were trained to play and improvise with the 12-bar blues on the keyboard and the impact this had on their confidence to teach music but do not report on how participants were guided to translate these rather specific skills into teaching activities. Welch and Henley (2014) provide a detailed account of a blended training approach for trainee GTMS that involved university-based musicianship training and school-based learning tasks. Whilst they do analyse how the musicianship aspect of training then impacted upon the subject knowledge of participants based on audio recordings of their work, there is no link to classroom practice.

When the approach to and content of music training with in-service GTMS is reported, this provides a clearer picture of what specifically made the difference to classroom practice. A series of studies do this and also draw upon a wider range of data collection methods, being less reliant on participant self-reported data. Studies from England (Hallam, Rogers, Creech & Preti, 2005; Hallam, Creech & Papageorgi, 2009; Himonides, Saunders, Papageorgi & Welch, 2011; Rogers, Hallam, Creech & Preti, 2008; Varvarigou, Creech & Hallam, 2012; Welch, 2021) report on regular training delivered by external partners including the Voices Foundation (n.d.), Sing Up (n.d.) and the London Symphony Orchestra (n.d.) to groups of up to 20 GTMS, lasting between one and two years. Training included: classroom singing skills and vocal technique; warm-up, action and movement songs; vocal games; part singing; using percussion to accompany songs; sound stories and graphic notation; the musical elements; using motifs, musical structures and pentatonic scales to compose. Post-training, participants reported increased leadership skills in music

and higher musical expectations of pupils (Himonides et al., 2011, Welch, 2021). Training experiences of being a musician 'acted as catalysts' (Varvarigou, Creech & Hallam, 2012, p.166) in their development of professional autonomy and musical self-concept (Rogers et al., 2008), with participants becoming less reliant on prescriptive resources. Participants preferred shorter training sessions rather than whole day sessions in small groups, combined with the opportunity to observe and co-teach with a music specialist in order to address their individual training needs (Rogers et al., 2008). Experiences of networking with colleagues from the same school within a professional learning community (Himonides et al., 2011) and on a long-term basis (Varvarigou, Creech & Hallam, 2012) were most impactful. In contrast, short-term training sessions with GTMS from different schools led to feelings of professional isolation (Hallam, Creech & Papageorgi, 2009). Whilst these studies provide some consensus on the essential components of effective music training for GTMS, because training was delivered by external subject specialists it arguably deflected away from identifying a 'champion for music on the permanent staff' (Hennessy, 2006, p.23) able to embed high-quality music provision within the school. It is therefore argued that GTMS, and so GTSS, are best supported to teach music confidently and competently within a community of practice that is scaffolded and maintained by a school-based music specialist mentor.

Facilitating opportunities for in-service GTMS to train and work collaboratively within a community of practice has been effective in addressing issues of competence and confidence amongst GTMS. Two Australian studies (de Vries, 2013/2015) examine the music education and training experiences, current music teaching practices, and influencing factors on self-efficacy for teaching music of five qualified GTMS. A focus on the lived experiences of participants revealed they were leading singing with their pupils, incorporating music technology into composition activities and exploiting the link between music and other arts subjects. Data analysis suggested that the reinforcement of mastery teaching experiences through verbal encouragement from peers, music specialists, headteachers and parents was most significant in achieving higher levels of self-efficacy, as is consistent with other teacher efficacy research (see Section 2.5.5). Whilst these studies provide some insight into the professional context of a small number of GTMS, they do not interrogate what is lacking from classrooms and how this could be addressed through training. For instance, participants' music teaching practices

were fairly limited to singing, but this was not commented on or challenged by the researcher.

Mentoring from a music specialist is the most effective strategy to achieving real change in practice according to GTMS (Byo, 1999; Garvis & Pendergast, 2010; Holden & Button, 2006; Stunell, 2010). Mentoring involves supervision, support and collaborative self-development (Kemmis, Heikkinen, Fransson, Aspfors & Edwards-Groves, 2014), typically taking place over extended periods of time when used effectively in the workplace (Eraut, 2011). Positive outcomes include experiences of collegiality that involve collaboration, networking, sharing knowledge and ideas, with effective mentoring being an important strand in professional development (Powell, 2019). Workplace mentoring in education has been described as particularly important in response to diverse pupil needs and complex curricula (Martinez, 2004), a point that certainly applies to GTSS (see Section 2.3). Mentoring for teachers should include opportunities to trial new teaching methods, make autonomous decisions and engage in reflective practice with mentors (Hargreaves & Fullan, 2012; Richter, Kunter, Lüdtke, Klusmann, Anders & Baumert, 2013), leading to a collaborative culture in which 'failure and uncertainty are not protected and defended, but instead are shared and discussed with a view to gaining help and support' (Hargreaves & Fullan, 2012, p.113). Mentoring in music is seen by some as particularly unique, with the need to combine music subject knowledge and strategies for teaching music, scaffolded by music specialists (Conway, 2015). Other qualities reportedly required of an effective music mentor include having strong subject knowledge, compatible philosophies regarding music education, and strong music and teaching skills (Conway & Hodgman, 2006). Being able to nurture and affirm (Smith, 2005) have also been identified as critical in the development of trust with teachers.

Professional and mutual trust between a music specialist mentor and generalist teachers has been observed as pivotal to the success of training. A series of studies that report on workplace-based music training delivered by music specialist mentors to Early Years (EY) GTMS illustrate this well. A year-long training programme with three EY GTMS in Australia focused on developing participants' vocal confidence through chants and vocal games, and modelling simple strategies for managing instrumental work (Bainger, 2010). A range of data collection methods, including classroom observation, revealed more active music teaching and

increased use of instruments post-intervention. The mentor acknowledged the music teaching background of participants and reasons for low confidence as part of the training. This developed trust between the mentor and teachers, resulting in participants engaging positively with classroom observations and feedback despite feelings of professional vulnerability, leading to conclusions that 'consistent and open dialogue based on mutual respect, and practical follow-up' (Bainger, 2010, p.25) was essential. Knight, Stansall, Bowmer, Mason, Voyajolu, Ockelford and Welch (2018) detail the content of 10 weeks of classroom training led by an EY music expert and a Speech and Language Therapist in England as being: vocal play and singing; musical games; listening skills; found sounds and sound makers in the environment; and multi-sensory exploration of music through movement and story. Mentors modelled and led teaching initially, with participants gradually taking over teaching, a process that empowered participants to feel in control and have ownership of their training. Despite their EY focus, the implementation of mentor-led training within these studies is of particular relevance to this thesis because elements of EY music teaching strategies mirror SEND pedagogy in many ways (see Table 2.1).

As a result of recommendations in the Henley Review (Henley, 2011), Hennessy (2017) reviewed the content of music training within primary ITT from across 21 different HE providers in the UK and highlighted consistency across module content. For the purposes of this study, Hennessy's (2017) research was linked to studies that have already been examined in this section involving in-service GTMS and the content of their music training. This formed a table of thinking that underpinned the content of and approach to SEND music training within this study (see Appendix 2.1), the hypothesis being that much of this content would be applicable to GTSS, albeit with specific SEND pedagogy in mind (see Sections 2.2 & 2.3). Although SEND music teaching strategies were addressed by some ITT providers in Hennessy's (2017) review, this was minimal. Reference was made to the SoI framework (Sounds of Intent, n.d.), a tool that maps early music attainment typically displayed by learners with SLD and PMLD (Ockelford, Welch, Zimmermann & Himonides, 2005; Vogiatzoglou, Ockelford, Himonides & Welch, 2011) and that proved important in identifying the musicianship skills required of GTSS earlier (see Section 2.5.3). In the professional experience of the researcher, training GTSS in how to use the SoI framework is important for supporting their understanding of pupils' musical development, how this should be assessed and how learning should

be sequenced coherently. However, SoI does not guide GTSS with their classroom practice; it is reliant on teachers having the skills and pedagogy in SEND music to facilitate high-quality learning for pupils so they make progress as outlined by the SoI model. Despite the detail offered by Hennessy's (2017) study and the influence of this on the content of training for GTSS in this research, a clear gap remained in terms of SEND music pedagogy and in-service teacher training in this area that this study aimed to fill.

There are multiple factors involved in determining effective music training for generalist teachers, resulting in the acquisition of music teaching confidence and improved practice. Despite a series of studies making a contribution to the pragmatic professional knowledge of how to train GTMS to teach music (see Appendix 2.1), a lack of common understanding of this area of teacher CPD remains. For instance, the mechanics behind classroom-based music mentoring for in-service and experienced GTMS who report particularly low levels of competence and confidence to teach music is poorly documented (Barrett, Zhukov & Welch, 2019), particularly when compared with trainee GTMS (Pellegrino, Sweet, Kastner, Russell & Reese, 2014). The notable absence of research related specifically to the music training of GTSS means that a distinct gap in the research prevails; this being close to practice research that documents the design and impact of a job-embedded approach to training and mentoring in SEND music for in-service GTSS that focuses on their musicianship. Presenting this served as this study's main contribution to professional knowledge and practice.

2.5.7 Skills-based training and mentoring as part of teacher professional development

Learner-centred approaches feature prominently in the professional training of teachers and were essential to the pragmatic nature of this research because skills-based training needed to work quickly and effectively with busy teacher participants. In the context of this study, learner-centred approaches were based on child-centred learning theory (see Section 3.3.2), a concept that GTSS are highly familiar with as part of their everyday practice (see Section 2.2). It was therefore hypothesized that they would be comfortable engaging with this approach as learners themselves. A strengths-based focus (Cooperrider, Whitney & Stavros, 2003) informed learner-centred training by drawing primarily upon individual

participants' strengths within their SEND pedagogy, along with some aspects of their existing music subject knowledge and skills. In other subject areas, a strengths-based approach has helped GTMS colleagues tie together their content knowledge, pedagogical knowledge and knowledge of their pupils (Aelterman, Vansteenkiste & Van den Berghe, 2014; Ward, 2013). This helps teachers to tackle the practical complexities of subject areas they feel less confident to deliver by drawing upon strategies embedded within their practice, thereby applying what they already do 'well pedagogically in the classroom' (Morgan, Bryant, Edwards & Mitchell-Williams, 2019, p.48) to these wider areas. Participants' self-identified music training needs and requests were also prioritized within the intervention given their suspected low confidence and high anxiety to lead music teaching as musicians (see Section 1.1). It was hypothesized that facilitating classroom music activities within these self-identified areas in the same way that children learn about music (see Appendix 2.1) would make participants feel less exposed and vulnerable, being encouraged to experiment through musical role-play in an exploratory and child-like way. It was recognized that this would help participants 'to position [themselves] as artists and to immerse them in creative activities for themselves, which were then linked back to their pedagogy' (Sinclair, Watkins & Jeanneret, 2015, p.76) through classroom mentoring that was not only personalized to the music training needs of teacher participants but that was also specific to pupil SEND learning needs in sample classrooms (see Section 2.3).

It was determined that in the context of this study, classroom mentoring from an in-house music specialist with an extensive background in SEND music teaching was important so that participants were supported to put their skills-based music training into practice and were encouraged to take risks in a safe space. Mentoring is a well-established, highly effective strategy within teacher CPD (Choy, Chen & Bugarin, 2006; Cole, 2012; Darling-Hammond, Hyler & Gardner, 2017) and is an approach borne out of Situated Learning Theory (SLT). Developed by Lave and Wenger (1991), SLT promotes learning in context, placing emphasis on the constant construction of knowledge within authentic contexts and with others (Orgill, 2007). Underpinned by constructivist learning theories, cognitive apprenticeship is a key element of SLT, 'a teaching strategy in which an "expert" (the teacher) models a skill while appropriately diminishing and then releasing support for a learner' (Catalano, 2015, p.653). Theoretical training equips generalist teachers with the skills needed

to teach practical subjects including Physical Education (PE) (Armour, Quennerstedt, Chambers & Makopoulou, 2015) and music (Poulter & Cook, 2022), whilst in-class mentoring from an expert model then contextualizes the theoretical content, allowing teachers to 'observe, implement and trouble shoot the theoretical content…within the authentic context of their class' (Miller, Eather, Gray, Sproule, Williams, Gore & Lubans, 2017, p.177). Mentoring also promotes pupil-centred practice and supports teachers to actively involve pupils more effectively in lessons (Bell, Maeng & Binns, 2013), a highly relevant outcome within the context of this study owing to the importance of pupil-centred teaching within SEND pedagogy (see Sections 2.2 & 2.3). Classroom mentoring in the context of this study was also underpinned by experiential learning theory (Kolb, 1984/2014). In contrast to lecture-based or academic learning, experiential learning focuses on real-life learning with an emphasis on 'direct sense experience and in-context action as the primary source of learning' (Kolb, 2014, p.13) and is 'a continuous process grounded in experience' (Kolb, 1984, p.41). Learning is depicted as a four-stage, typically sequential cycle involving concrete experience (stage 1), reflective observation (stage 2), abstract conceptualization (stage 3) and active experimentation (stage 4). Applying this model to music training within the ITT of GTMS, Russell-Bowie (2013) found that active experimentation was most critical to the development of music teaching competence and confidence amongst trainees.

Supporting participants to apply their skills-based training to their classroom practice and embed this in ways that empowered them as teachers of SEND music was crucial. In order to achieve this findings from generalist teacher CPD research (Duncombe, Cale & Harris, 2018; Morgan et al., 2019) revealed it was important for the mentor to: build rapport and trust; know when to intervene during classroom mentoring; respond to ongoing and changing teacher need; facilitate teachers as learners rather than directing them. Facilitating opportunities for critical reflection (McLellan, 1996) with the mentor and with other participants was also important because this enabled participants to step back from being music learners and step into the role of being reflective adults, able to embed their training into classroom practice. Through conducting a meta-analysis of research into skills-based learning with adults across professions, Roessger (2016) found that unambiguous and regular feedback emerged as the most significant influencing factor on the development of skills-based expertise. Knowing what would work in their

classrooms in terms of how to guide pupils as music learners would mean participants had developed ownership and autonomy of their SEND music teaching, ultimately one of the key aims of this research. Facilitating a 'growth in practice model of professional development where teachers learn together' (Morgan, et al., 2019, p.45) was also a priority, given preferences voiced by GTMS colleagues for longer-term music CPD within professional learning communities rather than one-day tokenistic workshops (Conway, 2008; Conway, Hibbard, Albert & Hourigan, 2005). An approach to music training for GTSS that was used in this study is now outlined before the research questions are identified (see Section 2.6).

2.5.8 Determining an approach to in-service music training for GTSS at the research school

Whilst existing research offers some detail about how to engage pupils with SEND in the music classroom using specific music teaching strategies (Jacquiss & Peterson, 2017; Sobol, 2017), there remains a distinct lack of detailed, practical guidance on how to teach music to pupils with SEND and how GTSS can be trained to develop the subject knowledge, classroom musicianship and PCK required to do this. The existing literature regarding music training for generalist teachers offers limited information about training content and strategies (see Section 2.5.6). It also fails to address the music training needs of GTSS and the SEND music pedagogy that would inform music training models for GTSS. Establishing this was the study's main aim and proposed original contribution to professional knowledge and practice.

In order to determine a SEND music training model for GTSS, the researcher adopted a patchwork approach by drawing upon knowledge and practice from nearby fields of work, adapting them to the SEND music context. This process was framed by the view that teachers are required to understand subject matter, teaching and learning, and then subject specific learning and teaching (Shulman, 1986/1987). In the music education context, teachers must therefore 'know about music, learning and teaching, and then music learning and teaching' (Wiggins, 2007, p.36), a complex task, requiring a range of combined, professional skills (Kokkidou, Dionyssiou & Androutsos, 2014). In relation to GTSS, this meant that connecting their music subject knowledge, classroom musicianship skills and general SEND pedagogy was crucial to the development of their SEND music pedagogy. Whilst information related to general SEND teaching and learning was easily located within

the literature (see Sections 2.2 & 2.3), a proposed outline of SEND music pedagogy needed to be hypothesized from key work in the area of EY music pedagogy (Bremmer, 2021) given the similarities between EY and SEND pedagogy more generally (see Table 2.1). Similarly, a hypothesized list of the musicianship skills required of GTSS needed to be derived from a combination of models including Kodály, Bremmer (2021), Ibbotson and See (2021), and Sounds of Intent (SoI – see Table 2.2). Some of the research that has examined the music training needs of GTMS was helpful (see Section 2.5.6), particularly when compared with the work of Hennessy (2017) and her review of active music training ideas that focused on developing the musicianship skills of teachers (see Appendix 2.1). Studies that have considered skills-based training and mentoring with teachers (see Section 2.5.7) were important when considering the practicalities of a learner-centred SEND music training model, particularly in terms of: adopting a strengths-based focus (Cooperrider, Whiteney & Stavros, 2003); following participants' self-identified music training needs and immersing them as music learners (Sinclair, Watkins & Jeanneret, 2015); mentoring from an expert SEND music specialist as a form of cognitive apprenticeship (Catalano, 2015) that complemented skills-based training; certain mentor qualities for coaching in-service generalist teachers (Duncombe, Cale & Harris, 2018; Morgan et al., 2019); the importance of collaborative and critical reflection with others (McLellan, 1996). By taking inspiration from these various fields of work, this study fills gaps in music education research by placing SEND music pedagogy at the centre of the training and mentoring model, and illustrating how GTSS are best trained to develop this pedagogy.

The research proposed that certain factors would be crucial so participants were able to translate their skills-based musicianship training into classroom practice. First, participants needed to be 'empowered to engage in music as music learners' (Henley, 2017, p.471) and to take part 'as musicians in the musical experiences expected of children' (James, 2015, p,18). This has led to increased skill (Henley, 2009; Varvarigou, Creech & Hallam, 2012) and confidence to teach music (Holden & Button, 2006) amongst GTMS. Facilitating training in this way meant that participants would first be musicians and would then know how they were being musicians in order to understand how to lead their pupils to be the same; they would be 'taking part, leading learning and learning from and with the children' (Daubney, 2017, p.1). Engaging participants as musicians would involve identifying

and valuing their musical starting points, and facilitating learner-centred approaches in response to these, addressing calls for this kind of research with generalist practitioners (Biasutti, 2010; Henley, 2017). Second, it was therefore important that training in SEND music promoted active music making (Henley, 2017) whereby participants worked 'with musical sound as the dominant mode of communication and words [were] kept to a minimum' (Atkinson, 2018, p.267). In the context of SEND music teaching, active music making primarily involves physical responses to music using body movement in controlled and expressive ways (Jeanneret & DeGraffenreid, 2012), multi-sensory strategies (Adamek & Darrow, 2010) and instruments (see Section 2.3 for a full review of this). In light of concerns about unmusical music lessons in mainstream settings (Ofsted, 2012), it is essential that pupils with SEND have access to a participatory and not passive music education experience (Lubet, 2011a). This approach is underpinned theoretically by the idea that learners acquire knowledge through action and that the process of doing is key within the broader process of learning (Dewey 1934/1965). Finally, participants needed to encounter mastery experiences in music teaching, gained through trail, error and practice, and social persuasion as a result of feedback and encouragement from others that they viewed as being credible (de Vries, 2013). A music specialist mentor therefore needed to be proficient in the craft of SEND music teaching in order to provide specific 'pedagogical scaffolding' (Welch, 2021) and 'transmit tacit knowledge…through demonstration, conversation and coaching' (Jones, Kelsey & Brown, 2014, p.33). Participants would 'explore new approaches to teaching music in the context of their own classroom' (Holden & Button, 2006, p.36), gradually taking over teaching from the mentor as they developed their own SEND music pedagogy.

2.6 Research questions

GTSS have to consider a number of SEND teaching strategies and require a broad set of pedagogical skills (Section 2.2). Children with SLD, PMLD and autism present with complex learning needs in the music classroom. Despite this, there is a clear lack of guidance on how teachers should teach music to these pupils, leading the researcher to conclude that there is a limited understanding of what constitutes high-quality SEND music teaching amongst teachers (Section 2.3). Factors that contribute to gaps in SEND music pedagogy and provision relate to the intersection between disability and music in research, and the problematic concept of PCK in

music education (Section 2.4). The limited research that has focused on music teaching in special schools leaves ambiguity as to who is teaching music in these settings, what they are teaching in the absence of an agreed and consistent curriculum, and how they are teaching it. The focus of this chapter then turned towards the definition of generalist teachers, and, despite the barriers they have faced in becoming confident and competent teachers of music, an acknowledgement of their valid and valuable role in the delivery of curriculum music (Section 2.5). Training models that have attempted to address the music training needs of both trainee and in-service GTMS were reviewed, before a detailed approach to music training for in-service GTSS was outlined, indicating a significant area of professional knowledge and practice to which this thesis contributes. The way in which this training model was implemented is considered in detail in the next chapter.

The research sought to answer the following research questions:

Research Question 1: How prepared were GTSS participants to teach music based on their prior training and teaching experiences?

This explored factors that had hindered the development of self-efficacy beliefs for teaching music amongst participants, pre-intervention. It measured their competence for teaching music, identifying gaps in their subject knowledge and musicianship that training sought to address. It investigated whether participants had lacked contact with sources critical to the development of teachers' self-efficacy beliefs (Bandura, 1997) and to what extent this shortfall had influenced their attitudes and belief systems about their own musical potential and that of their pupils. Whilst a significant body of research has examined factors related to the skills and confidence gap of GTMS (see: de Vries (2013), Garvis (2013), Lowe, Lummis & Morris (2017) & Welch (2021) for recent examples) and the impact of these gaps on teachers' music pedagogy (Daubney, 2019; Welch & Henley, 2014), little is known about factors that may have adversely affected the readiness of GTSS to teach music.

Research Question 2: Which new training and teaching experiences were most impactful on participants' developing competence and confidence to teach SEND music?

This tested the hypothesis that participants could be trained to teach SEND music by reporting on their lived experience of the training process within their own authentic SEND music contexts (McLellan, 1996). It measured changes in their music subject knowledge and musicianship skills, illustrating the significance of these changes on their developing PCK in SEND music. This helped build a picture of 'music-pedagogical thinking and practice' (Ockelford & Markou, 2012, p.384) in the SEND context, an important contribution to the music education field given difficulties in defining PCK in music more broadly (Bremmer, 2021) and the lack of attention paid to SEND music pedagogy (see Section 2.4). Specific elements, or sources, within the training process that contributed most significantly to changes in their observed and self-perceived efficacy as teachers of SEND music were examined. This illustrated a level of detail within a SEND music training model that has been absent in many impact studies that have addressed music training with GTMS (see Biasutti, Hennessy & Vugt-Jansen, 2015; Power & Klopper, 2011; Russell-Bowie, 2013). Participants' teaching actions and decisions that were indicative of their growing self-efficacy as teachers of SEND music were reported. This potentially provides an insight into domain specific behaviours (Bandura, 2006) that are congruent with GTSS who have high levels of self-efficacy for teaching music, offering a variation to models of self-efficacy for teaching music in relation to GTMS (Wagoner, 2015).

Research Question 3: What impact did this training have on the professional identity of GTSS participants as teachers of music?

This presented evidence of the impact that learner-centred, skills-based training and mentoring in SEND music had on participants' attitudes and belief systems towards their own musicianship and that of their pupils, as well as towards their perceived efficacy and professional responsibilities as teachers of music, directly addressing calls for this kind of research in the SEND music context (Ockelford & Markou, 2012). Factors that have hindered the development of self-efficacy, competence and confidence for teaching music amongst GTMS are well documented within the literature (see Section 2.5.4) and clear efforts have been made to address these issues through training and mentoring with both trainee and in-service GTMS (see

Section 2.5.6), However, much of this research has been quantitative in nature and has been overly-reliant on self-reported data from participants (see Section 2.5.5), leaving scope for further study to examine in greater detail the constructs that underpin generalist teachers' identity as teachers of music. This study sought to occupy this research space, albeit offering a particularly unique contribution to the music education field given its SEND context.

These questions informed the research design and methodology of the study, which is the focus of the next chapter.

3.0 Methodology

The purpose of this chapter is to consider the research paradigm, methodology, framework and methods used in this study to examine the impact that a learner-centred training model had on the readiness of Generalist Teachers in a Special School (GTSS) to teach music and on their changing self-perceptions about being able to do so.

3.1 Introduction

This chapter opens with a detailed interrogation of the paradigm rationale and how it addressed the research questions (Section 3.2). The specific research design chosen for this study is then outlined (Section 3.3), and the research process and purpose explored (Section 3.4). Information relating to how research participants were chosen and worked with is explained (Section 3.5) and how data was collected in light of the paradigm rationale outlined earlier (Section 3.6). The approach to data analysis is then detailed (Section 3.7), followed by an interrogation of the trustworthiness of the research in terms of reliability and validity (Section 3.8). Ethical considerations and limitations associated with the study are discussed (Section 3.9). The chapter then concludes (Section 3.10) with a summary of how the research questions and aims informed theoretical underpinning and methodological decisions, and how the subsequent analysis of data ensured these questions and aims were fully addressed.

3.2 Paradigm rationale

There are many different ways to approach social research. Researchers do not always agree how to do this, a point of conflict otherwise known as the paradigm debates (Klenke, 2008). In spite of this, the rationale for adopting a certain methodological approach and for using specific methods must be to find the best fit to answer the research questions (Bryman, 2012; Creswell, 2014; Punch & Oancea, 2014; Thomas, 2013). The methodological choices made in this study were therefore determined by the theoretical basis directed by the research questions. The ontological and epistemological views of any researcher also govern methodological decisions (Opie, 2004) and methods must be compatible with the researcher's views of the world, knowledge and social reality (Savin-Baden & Howell

Major, 2013). As alluded to here, although the methodology, research questions and theory of this study are closely connected, their complex relationship demonstrates how qualitative research can not be described as a linear process (Braun & Clarke, 2013). The theoretical underpinning of this study therefore had to fit well with an appropriate methodological approach that would allow the research questions to be answered fully.

3.3 Research questions and theoretical underpinning

The previous chapter reviewed the literature relating to Special Educational Needs and Disabilities (SEND) and music education, and teacher training in music. This highlighted a gap in professional knowledge and practice in the music training of in-service GTSS and SEND music pedagogy. This research thesis contributes to professional knowledge and practice by demonstrating how GTSS can be trained as autonomous, confident music teachers through a side by side training and mentoring programme. This project was unique in music teacher training and Continuing Professional Development (CPD) for teachers in SEND schools. The overarching aim was to show how a skills-based training intervention, delivered by a SEND music specialist that focused on developing the musicianship skills of GTSS, would result in changes to their practice. The research questions (see Section 2.6) were generated to measure this change in practice. Based on these priorities and in line with both the ontological and epistemological views of the researcher, the theoretical underpinning for this study was based on learner-centred theory.

3.3.1 Ontological and epistemological considerations

Ontology is concerned with the nature of reality. In the context of educational research, this is identified as social reality as opposed to physical reality. Objectivist ontology maintains that reality is external to people, including researchers; it is independent of its social context (Wood & Smith, 2016). Subjectivist ontology views reality as being constructed by people and is dependent upon the thoughts, understandings and perceptions of these people (Basit, 2010; Thomas, 2013), meaning reality is multiple and changeable. The major difference between the two can be defined by how research is understood and conducted, and by claims research makes about its findings and how these reflect reality; in other words, whether its findings are generalizable (objectivist) or specific to a context or

population (subjectivist). This study explored the 'culturally derived and historically situated interpretations of the social life-world' (Crotty, 1998, p.67) of GTSS when teaching music.

Epistemology is concerned with the nature of knowledge, what can be considered legitimate knowledge and how meaningful knowledge is generated (Braun & Clarke, 2013). Positivism promotes the notion that social phenomena can be empirically investigated using an objective approach typically adopted by the natural sciences (Densombe, 2010) and by applying procedures as observed within the natural sciences to the study of human behaviour (Bryman, 2012). Interpretive approaches sit in opposition to this in their belief that events and behaviours are affected by context, and that social reality is complex requiring thick descriptions (Geertz, 1973). People are seen to actively construct their social world (Becker, 1970; Garfinkel, 1984) in the way they interpret events and situations (Morrison, 1998), the subjective views of individuals (Creswell, 2014) and of multiple realities (Thomas, 2009) being fundamental within this.

Ontological assumptions lead onto epistemological assumptions (Hitchcock, & Hughes 1995) which in turn influence methodological decisions and practices. In this study, the values of the researcher aligned with subjective (constructivist) and interpretive approaches, resonating with the study's purpose of exploring the experiences and views that a small number of GTSS had of teaching music, and then implementing a training model that was rooted in their professional development needs. This approach was based on constructivist learning theory framed by the seminal work of Piaget (1971), advocating that learners 'create or construct their own understandings or knowledge through their interaction of what they already know and believe and the ideas, events and activities with which they come in contact' (Tandon, 2017, p.1). This study focused on the pre- and post-training experiences of a specific population of professionals, working in a specific context, and how their interaction and engagement with training impacted upon their practice. These paradigms were clearly evident in the theoretical underpinning of the study, subsequently influencing the chosen research strategy (see Section 3.4) and research design (see Section 3.5).

3.3.2 Learner-centred theory

This was a small-scale, qualitative study that was idiosyncratic to the research school and participants working within it. A learner-centred approach to training and mentoring was therefore adopted, based on the principles of child-centred learning theory. The term *child-centred learning* is usually applied to early education or primary school contexts (Huynh, 2015). Contemporary studies discuss a child-centred approach to education using a number of different terms (Chung & Walsh, 2000) which are used interchangeably (Harmelen, 1998; O'Neill & McMahon, 2005). For the purposes of this study and its work with adult learners, the term learner-centred was used instead, as is often the case when applying child-centred learning theory to the case of older learners (Huynh, 2015; Wright, 2011). The theoretical underpinning of learner-centred theory framed decisions regarding the pragmatic nature of training and mentoring with teacher participants in this study. These included mentoring teachers in a learner-centred manner in their individual classrooms, as well as representing their voice by following their self-identified training needs and interests (see Section 2.5.7), an important contribution to the music education field given that the experiences and views of GTSS are under-represented within teacher training research in music (see Sections 2.5.4 & 2.5.6).

Key theorists including Rousseau (1712-1778), Dewey (1859-1952), Piaget (1896-1980) and Vygotsky (1896-1934) have been highly influential on the development of the individualized approach underpinning child-centred learning theory (Altinyelken, 2011; Dearden, 2012). As a result of Rousseau's work *Emile*, the world of education was introduced to the concept of the differences between learners, including their various levels of learning (Entwistle, 2012; Mtika & Gates, 2010). Pestalozzi (1746-1827) and Froebel (1782-1852) applied much of Rousseau's thinking to children and their education (Darling, 1994). Dewey, Piaget and Vygotsky then shaped these early efforts to establish learner-centred approaches in education into constructivist learning theories (Huynh, 2015). Dewey's belief was that education should focus on individual support based on the capacities, interests and habits of the learner, developing the *learning by doing* approach to education (Huynh, 2015). Piaget acknowledged learner motivation as being fundamental to the individualization of knowledge (Palmer, 2001). Vygotsky viewed the construction of knowledge and skills as a social process, leading to cooperative theories of learning (Tarnopolsky, 2012). All of these figures

demonstrated the principles associated with, and benefits of, an individualized or personalized approach to learning, something that was key to this study in the way it sought to establish an effective approach to music teacher training for GTSS that was rooted in and responsive to the individual needs of participants.

Basing a music teacher training model on learner-centred theory was appropriate in the context of this study because the goal of the training and mentoring intervention was to support participants to apply their established SEND pedagogy to the music context (see Section 2.5.7) by putting the child-learner in the centre of their music teaching. By working with children with SEND in a specialist setting participants adopt child-centred learning strategies in their everyday practice and excel at this (see Section 2.2); they needed mentoring that was specific to their own music teaching needs and the needs of learners in their classrooms (see Section 2.3) in order to apply this expertise to their music teaching. As is consistent within the relevant legislation, special school provision should be 'underpinned by high quality teaching [that is differentiated and personalized] and is compromised by anything less' (DfE & DoH, 2015, p.25). Therefore, participants were familiar with, and actively practicing within, the context of this study's theoretical framework.

3.4 Research strategy

Research questions drive the research process (Flick, 2018) and can be answered in many different ways. They 'point to methods required and provide a framework for writing the research manuscript' (Silverman, 2011, p.77). The chosen methodological approach must be regarded as a best fit way of answering these questions (Bryman, 2012; Creswell, 2014; Punch & Oancea, 2014; Thomas, 2013) that must also be in line with the researcher's ontological and epistemological views (Hitchcock & Hughes, 1995). Learner-centred theory was identified as the approach best suited to answering the research questions (see Section 3.3.2), although inspiration was also drawn from ethnomethodology and grounded theory in the planning of the study.

3.4.1 Quantitative and qualitative

Quantitative research strategies largely rely on statistically based techniques (Wood & Smith, 2016). They emerged from within the positivist tradition (see Section 3.3.1), are more frequently employed within larger-scale research and can

be a powerful research strategy in certain contexts (Cohen, Manion & Morrison, 2011). Whilst there is support for the use of quantitative research strategies in educational research (Eisner, 1992; Schrag, 1992), others see the reduction of social data to numbers as 'the mathematization of nature' (Horkheimer, 1972, as cited in Cohen, Manion & Morrison, 2011, p.604).

The chosen methodological approach must be in line with a researcher's world views regarding the nature of knowledge and social reality. Many early social researchers adopted an objective stance to their work (Ryan, 2006). Numerous critiques of positivism and quantitative research strategies emerged within the second half of the twentieth century. Cohen, Manion and Morrison (2011) depict how quantification of data did not seek to explore the grittiness of the human condition (Ions, 1977) and how science alienated us from our true selves and from nature (Roszak, 1970/1972). There were concerns that other forms of knowledge, including aesthetic and creative, were being neglected in favour of scientific knowledge, the latter being equated with all knowledge (Habermas, 1987). A paradigm shift (Kuhn, 1970) led to the notion of qualification rather than quantification (Kestenbaum, 1977) and researchers 'experimenting with the boundaries of interpretation' (Denzin & Lincoln, 1994, ix).

The purpose of this study was to explore the experiences and views that a small number of GTSS have of teaching music, and to then implement a person-centred training model to support their professional development in this area. It tracked their experiences and views before, during and after their engagement with this training, so that the needs of individual participants were fully understood and addressed. The chosen research strategy therefore had to support the in-depth interpretation of multiple realities (Thomas, 2013), allowing each participant to do this using their own words, selecting a format that would allow them to share these views with ease. There were two essential criteria underpinning this study that directed methodological decisions and choices as a means of representing these individual realities. The first related to the importance of the voice of the individual as a means of exploring the richness of individual experiences and meanings (Hall & Ryan, 2011; Hesse-Biber, 2010; Lichtman, 2013). The second related to the bespoke and tailored support participants were to be given at regular intervals during training based on their diverse range of skills, knowledge and experiences (Daubney, 2017).

Both of these criteria also link to the theoretical underpinning of learner-centred theory.

Some studies have made use of surveys and quantitative data analysis to explore the confidence levels of Generalist Teachers in Mainstream Schools (GTMS) for teaching music (Biasutti, 2010; Hallam, Burnard, Robertson, Saleh, Davies & Rogers, 2019; Garvis, 2013; Saetre, 2018). More have employed a mixed methods or qualitative approach as a means of producing data that appear more representative of the detailed, real-world experiences of GTMS (Baldwin & Beauchamp, 2014; Biasutti, Hennessy & Vugt-Jansen, 2015; de Vries 2013/2015; Hallam, Creech & Papageorgi, 2009). In order to meet the essential criteria identified above, this study also adopted a mixed, albeit largely qualitative approach. This was because qualitive research is seen as exploratory, producing descriptive and extensive data that are representative of real-life settings (Wellington, 2015). A quantitative approach was required solely for data analysis within the initial stages of framing the main study (see Section 3.6.3). It was felt that any further use of quantitative strategies would quantify social reality, restrict this study's essential criteria and would not best answer the research questions, as the in-depth interpretation of multiple realities would not be adequately explored.

3.4.2 Ethnomethodology in the classroom: Working with participants

Aspects of ethnomethodology inspired the research strategy and the design of the study as it sought to understand learning from the point of view of the participants and create a culture of learning with them. Ethnomethodology aligns closely with many of the features of constructivist and interpretive research, and is a variant of qualitative and naturalistic approaches (Cohen, Manion & Morrison, 2011; Hitchcock & Hughes, 1995). Ethnographic approaches concern themselves with inductive rather than deductive data analysis, generation not verification of theory, and subjective rather than objective knowledge (LeCompte & Preissle, 1993), all of which align with the researcher's worldviews. They were therefore deemed helpful in answering the research questions. The study was not, however, an ethnographic study as it intentionally sought to influence the classroom experiences of participants, an approach that sits in direct contrast with the main feature of ethnographic research (Burrell & Morgan, 1979; Garfinkel, 1967).

A main aim of the study was to establish an effective approach to music teacher training for GTSS that was rooted in their needs and representative of their experiences. Owing to her extensive professional experience as a SEND music specialist teacher, the researcher acted as a mentor or 'more knowledgeable other' (Henley, 2017, p.471), working side by side with participants in their classrooms in order to achieve this. This approach was underpinned by Situated Learning Theory (SLT – Lave & Wenger, 1991) and the associated notion of cognitive apprenticeship (Catalano, 2015) in terms of contextualizing teachers' professional learning in their own classroom settings to achieve positive changes in classroom practice (see Section 2.5.7). It was important to understand how participants made 'sense of their everyday world' (Cohen, Manion & Morrison, 2011, p.19) before acting upon this information by training them. This was the case particularly in light of previous research involving GTMS and their experiences of music training having typically involved self-reported data (see Section 2.5.6), thereby depriving the research literature of an accurate picture of what this looks and sounds like, and how training can address shortcomings. Moving away from self-reported participant data allowed the researcher to move beyond making simple interpretations and representations of social situations (Thomas, 1993). There have been calls for further research involving observations of generalist teachers teaching music (Garvis, 2013; Power & Klopper, 2011; Wiggins & Wiggins, 2008), as this has enabled researchers to identify a mismatch between the perceptions generalist teachers have regarding their music teaching and the reality of this (Ehrlin & Wallerstedt, 2014).

3.4.3 Grounded theory

There is a plethora of qualitative methodologies available to qualitative researchers. Hypotheses may be tentative at first (Merriam, 1998) and emerge through the 'constant comparative analysis of data' (Savin-Baden & Howell Major, 2013, p.133) rather than explore a pre-determined theory, as is typically the case within quantitative research designs (Creswell, 2014).

Although this study was not strictly a Grounded Theory (GT) study, it was inspired by the principles of GT. GT is a key method for producing specific types of knowledge (Greckhamer & Koro-Ljungberg, 2005), without the need to seek a specific truth (Savin-Baden & Howell Major, 2013). GT is an inductive process in this way, in which 'data pattern themselves rather than having the researcher pattern

them' (Cohen, Manion & Morrison, 2011, p.598) and 'is a general methodology for developing theory that is grounded in data systematically gathered and analysed' (Strauss & Corbin, 1994, p.273). The role of the researcher in this study was to work alongside participants in a person-centred and responsive manner as they engaged with a programme of training and mentoring, generating grass-roots knowledge about their training needs and teaching experiences. Teacher actions, responses and reflections were key to the design and implementation of training, providing an unknown element to the nature of the study as it progressed. This study was therefore grounded in the reality of its participants, nurturing professional discourse and understanding within their professional learning community that enabled participants to teach music in their own grounded ways. Being grounded in the day to day challenges of participants was a key feature of this 'close to practice' research (Wyse, Brown, Oliver & Poblete, 2018).

3.5 Research design adopted for this study

There are many different methods that could have been used to answer the research questions. A pluralistic approach was adopted so that the researcher could draw upon a range of research approaches in order to best answer these questions and address the aims of the study. A case study approach was chosen as the primary means of framing the use of methods, as is commonly used within qualitative research (Bryman, 2012; Denscombe, 2010; Merriam, 2009), including educational research (Merriam, 1988; Wood & Smith, 2016). As one of the main forms of naturalistic enquiry (Arsenault & Anderson, 1998; Flick, 2004), it sat comfortably within the constructionist and interpretive worldviews of the researcher.

3.5.1 Case study design

A case study 'provides a unique example of real people in real situations' (Cohen, Manion & Morrison, 2011, p.289) and therefore, in the context of this study, ensured the research questions were rigorously addressed. Documenting and examining the lived experiences of GTSS as they engaged with a programme of training and mentoring in SEND music was a key aim of this study and one that sat comfortably within this definition of case study. This study sought to provide a rich, vivid and chronological account of events that the researcher had an active involvement with. The heuristic appeal of case study (Merriam, 1988) strongly

resonated with the foundations of this research, in terms of how it contributed to professional knowledge and understanding of a widely under-reported area of practice (see Section 1.3.4). The research was heavily pragmatic, in the sense that the case study of GTSS in one special school carried real world validity (Wood & Smith, 2016) in the hope that findings would resonate with other GTSS who are tackling the same or similar challenges in their schools.

The study's aim was to successfully implement a training model in music for GTSS, offering a solution to a potentially wide area of professional concern (Newby, 2010). Within a case study design, a range of research tools are typically deployed (Yin, 2009) in order to harness the complexity of real-life contexts (Wood & Smith, 2016). This was an important element of this study in its focus on representing the social reality of participants. Case studies have their limitations in the way they may not be 'generalizable, representative, typical, replicable [and] repeatable' (Wellington, 2015, p.174); in other words, they are only able to describe their content. However, it was determined that the strengths of a case study approach outweighed its weaknesses, particularly in terms of the opportunity to embrace the unanticipated and capture unique features of a poorly understood area of educational practice that larger-scale studies would likely miss (Nisbet & Watt, 1984).

This study was opportunistic in terms of having taken place in the researcher's own school. This decision was purposive for two main reasons. Firstly, it was felt that the research school would be an ideal place in which to answer the research questions because it caters for pupils with a wide range of SEND. Such a diverse range of needs has become typical of many special schools in England (DfE, 2022) and so accurately reflects the challenges GTSS face when teaching curriculum music (see Section 2.3), widening the applicability of the study's findings and recommendations for practice to the SEND sector nationally (Wood & Smith, 2016). Furthermore, the research school is a primary special needs school in which all teachers are employed as generalist teachers, thereby widening the number of participants available to the researcher. Each participant would be known as a case, each case being defined as the generalist teacher and his or her music teaching context (Conway & Hibbard, 2018). Secondly, there were practical reasons for opting to use the researcher's own school in terms of how this would help meet the essential criteria of the study. It was felt that training and participant engagement

with other forms of data collection, such as interviews, would be more manageable and would take place in a timely manner, ensuring the study remained responsive to participants' needs in its efforts to represent participant voice and offer bespoke support. It was key that methods chosen not only suited the case study design but also worked towards meeting these essential criteria.

3.5.2 Action research

This study drew upon aspects of action research in its efforts to enact professional or social change (Meyer, 2000), by training a small number of GTSS to build the knowledge and skill base to teach music competently and confidently. Methods needed to track participant engagement with training and be responsive to the learning of each individual, in-keeping with learner-centred theory (see Section 3.3.2). The study took place in-situ, inspired by ethnomethodology within a case study framework (see Sections 3.4.2 & 3.5.1). Action research 'emphasizes the need for a symbolic relationship between theory and practice' (Wood & Smith, 2016, p.65) a point of particular significance in the context of this study given the gap in professional knowledge and practice. Action research projects are thought to support teachers to define their skills and role differently, to feel more confident and communicate increased self-worth, and to change their value and belief systems (Noffke & Zeichner, 1987), all of which were hypothesized to be priorities for this research, based on the areas of professional concern the researcher had (see Section 1.1). Action research aligned well with the aims and methodology of this study because its purpose was to generate 'living theory' (Whitehead, 2008) by documenting the efficacy of a learner-centred training model in SEND music.

3.6 Research process and purpose

This study was a multi-method, longitudinal case study lasting 12 months (January 2019 – January 2020). Its purpose was to determine an effective model for GTSS training in music, relevant to the specific needs of their classroom context and the range of learners within this (see Section 2.3). The researcher did not follow a ready made training package but instead developed a bespoke training package per participant, based on their individual training needs, anticipating that individual training models could well be replicated with other GTTS, in other special schools. As a means of addressing this purpose, documenting the lived experiences of

participants was crucial. Changes in their actions and beliefs were tracked and analysed using a range of methods that are typical of case studies, including interviews, lesson observations and questionnaires (Yin, 2009), as outlined in the next sections.

3.6.1 Use of methods

Data were collected in four phases (see Figure 3.1), each of which employed different methods in order to gather the best type of data and information to answer the research questions:

Figure 3.1   Phases of data collection

Phase 1 (January 2019)

Survey given to all teaching staff in school

Four teacher participants identified for phases 2 to 4 of study

Phase 2 (January - February 2019)

Participants complete timeline of music education experiences

Researcher conducts pre-intervention interviews with participants

Researcher completes 'River of Musical Experience' for each participant based on both of the above

Phase 3 (February 2019 - December 2019)

Three cycles of intervention work with participants to include:-
- training sessions
- classroom observations
- corridor memos
- musicianship trackers
- focus group discussions

Phase 4 (January 2020)

Researcher conducts post-intervention interviews with participants

3.6.2 The pilot

The phase one survey was piloted with five teachers prior to being distributed to the school's full teaching team of 30 teachers, the purpose of which was to ensure its questions were unambiguous and its findings therefore valid. Feedback from the pilot participants indicated that the questionnaire was generally easily understood, apart from one question, the wording of which was amended to avoid any further confusion when distributing the survey to the remaining teachers.

3.6.3 Phase one: Survey

An initial tool in the form of a hard-copy survey (see Appendix 3.1) was used to gather the views of a number of GTSS on teaching music, to help frame and strengthen findings of the main study (Morrison, 1993). This was essential given the under-researched nature of the topic (see Section 1.3.1). Survey responses did not influence the design of qualitative measures within the main study. Teachers could indicate on their survey if they were willing to volunteer for the main study.

The survey consisted of 4 sections. Questions related to: 1) music and its role at the research school; 2) experiences of music education and music opportunity; 3) music training; 4) summary. The survey was structured in this way as the researcher hypothesized, based on anecdotal professional experience and a thorough review of the literature, that information relating to these three key areas would best answer the first research question. The first section was designed to gather information about teacher perceptions of music education for pupils with SEND. The second and third sections related to teacher experiences of music education, of music training and support, as well as levels of confidence and feelings of musicality. Questions invited responses using tick boxes (usually with multiple choices), likert scales, rank ordering and written responses as a means of generating both quantitative and qualitative data. Questions employing the use of tick boxes and likert scales were often combined with an invitation to provide a written response so that meanings behind these initial responses could be interpreted with less ambiguity.

Specific questions were asked within the survey as a means of encouraging GTSS to reflect upon their experiences of and views regarding music education, triggering points for further discussion within the main study for relevant participants. Self-reported survey data are widely used to investigate teachers' practices and

beliefs (Blomeke, Busse, Kaiser, Konig & Suhl, 2016) both past and present (Aldridge & Levine, 2001), and have been used to investigate the music teaching experiences and practices of GTMS (see Section 3.4.1). The consideration of both past and present views was key to this study, as the researcher sought to relate historic experiences to current practice. In terms of the main-study participants, inviting responses regarding their own musicality was important in order to enable them to 'begin to construct an understanding of themselves as teachers of music' (Henley, 2017, p.474). This also allowed the researcher to establish the musical starting points of each participant, a crucial point so that the essential criteria of the study - representing participant voice and planning person-centred training - could be met. This was in-keeping with the study's theoretical underpinning of both learner-centred theory and aspects of grounded theory, and had been identified by the researcher as an important aspect of GTSS training in music (see Section 2.5.7).

3.6.4 Phase two: Visual methods

Phase two signaled the start of data collection involving the four main-study participants. Data collection tools were used in a specific order during phase two. Participants were first asked to complete an individual timeline of their music education and training experiences to date (see Appendix 3.2). A starting point of 'primary school' was suggested but participants were free to mark events before this if they wanted. Participants were asked to colour-code musical memories as positive, negative or neutral on their timeline in order to provide a stimulus for more in-depth discussion during pre-intervention interviews (see Section 3.6.5). Information from individual timelines and interviews was then mapped onto a type of critical incident chart identified as a *river of music learning experience* by the researcher; these are presented in the main-study findings chapter. Denicolo and Pope (1990) originally adapted the *rivers* style of critical incident charting for education. This visual tool was used to represent participants' music education experiences to date and to exemplify 'the enduring impact of music education on learning in ordinary lives' (Jolly, 2015, p.52) as a means of representing participant voice. Participants were subsequently asked to member check (Merriam, 1988) their own river in order to ensure their voice had been represented accurately. This was also key as a means of validating the trustworthiness of the data (see Section 3.8.1),

a strategy used in other qualitative music education studies (Conway & Hibbard, 2018).

Adaptations of critical incident charting have commonly been used in different areas of music research (Baker, 2005; Kerchner, 2006b; Odena & Welch, 2007; Taylor, 2011). Jolly (2015) modified Burnard's (2011) use of pre-set winding timelines, the direction and shape of the river-course being responsive to 'each individual's musical learning flow' (Jolly, 2015, p.64). This study adopted Jolly's (2015) approach, as it was felt that this would be more representative of individual participant voice and experience (see Figure 3.2 for an example from Jolly, 2015):

Figure 3.2   *River of Music Learning Experience (Jolly, 2015, adapted from Burnard, 2011)*
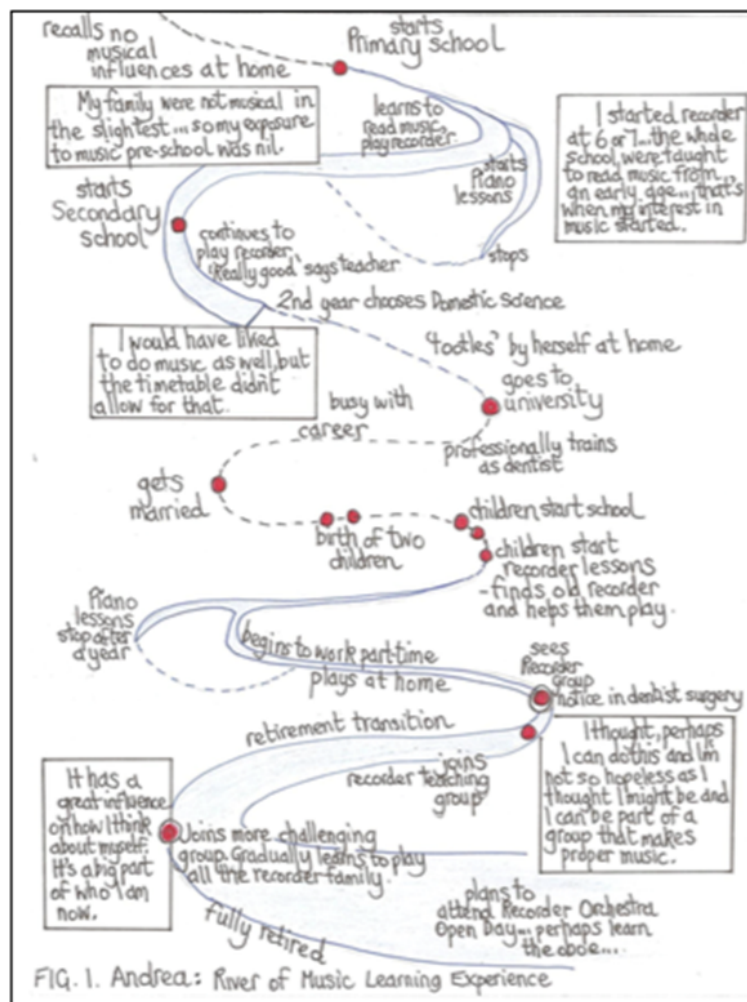
Each curve in the river indicated a critical moment of musical learning, whilst streams deviating from the main river course represented a disruption to musical learning. A

wide river course indicated a highly active or intense musical period whilst a dotted line indicated the opposite.

3.6.5 Phase two and phase four: Interviews

Interviews are often used in combination with other forms of data collection, particularly in the context of a case study (Yin, 2009) and remain the most popular means of collecting data for qualitative research (Savin-Baden & Howell Major, 2013). Interviews were used in this study specifically to understand how participants' pre-intervention experiences had affected their readiness to teach music, and how SEND-specific training in music might be able to address this. Interviews are frequently designed to gather complex information from participants (Wengraf, 2001), including an understanding of people and situations (Tierney & Dilley, 1998). In response to critical incidents identified on individual timelines (see Section 3.6.4), participants were encouraged to reflect upon 'the strength of emotion attached to those moments [crystallizing] ideas, attitudes and beliefs, many of which may have previously been held unconsciously' (Burnard, 2011, p.176), as they began to make sense of their music teaching identities. Representing participant experiences was key to the theoretical underpinning of learner-centred theory within the case study framework, ensuring the study met its essential criteria.

This study made use of semi-structured interviews (see Appendix 3.3) pre- and post-intervention (see Figure 3.1), these being common within qualitative research (Bryman, 2012). The use of semi-structured interviews enabled some degree of comparison to be made between participants during data analysis. Identifying areas of commonality is typically a popular reason for using interviews in research (Arksey & Knight, 1999) and was essential within the context of this study, given the under-researched nature of the music teaching experiences and training needs of GTSS. Post-intervention interview schedules, although still semi-structured, varied to some degree between participants because questions were heavily framed by participant responses from pre-intervention interviews. This was crucial in order to fully represent participant voice and therefore meet the essential criteria of this study.

Participants are known to relay information they perceive as being desirable or which they believe casts them in a good light during interviews, rather than provide honest and accurate responses (Yin, 2009). This risk was particularly high

in the context of this study, given the professional role of the researcher as a member of the school's Senior Management Team, a factor disclosed to the University's ethics committee (see Section 3.9) as part of securing ethical approval (Braun & Clarke, 2013). The power dynamic was managed by conducting the interviews, identified as acquaintance interviews (Garton & Copland, 2010) due to the researcher-participant working relationship, in an informal room in the research school, at a time which suited each individual participant, agreed well in advance of the interview.

3.6.6 Phase three: The intervention

The intervention phase consisted of three cycles of work (lasting 10 months) and involved the researcher acting as a music specialist mentor alongside participants. Various forms of data collection were used during this phase (see Figure 3.1) with training sessions, classroom observations and focus group discussions being either audio or video recorded, ethical approval having been granted prior to data collection starting and full participant consent gained (see Section 3.9). Video recording lessons was important as it enabled the researcher to work uninterrupted with participants in classrooms and allowed multiple playbacks of classroom recordings. This meant data could later be analysed thoroughly, including detailed recording of both teacher and pupil actions, interactions and gestures (Lagerlof & Wallerstedt, 2019), a crucial consideration given the responses of some pupils with SEND can be fleeting (see Section 2.3). These recordings were also key to the inductive analysis of classroom data (see Section 3.7), an approach that was inspired by GT (see Section 3.4.3) and that ensured the study remained person-centred.

Multiple cycles tracked whether persistent engagement with training and mentoring had a cumulative effect on the developing knowledge and skill base of GTSS. The mentor guided GTSS through phases of modelling, coaching, scaffolding and opportunity for reflection within each cycle, framed by the theory of cognitive apprenticeship (Catalano, 2015). The construction of professional identity was viewed as a process that occurred as teacher participants interacted with the mentor, and with each other, as significant others (Johnson, 2003) through a social constructivist lens. The principles underpinning social constructivism lend themselves effortlessly to mentoring (Graves, 2010) in terms of knowledge being

constructed by learners, learning involving social interaction and learning being situated (Beck & Kosnik, 2006), as reported by Izadinia (2015). It was hoped that the longitudinal nature of the intervention would allow thick descriptions of individuals, and the context in which they were working, to emerge (see Sections 3.3.1 & 3.4.2), something that was key to answering the research questions.

Each cycle of work began with a group training session led by the mentor. Training sessions enabled participants to immerse themselves in the experience of being a musical learner by means of engaging with SEND-specific music activities, approaches highlighted by the researcher as being crucial to a music training model for GTSS (see Section 2.5.8). Training was followed by the mentor co-teaching with individual participants for a period of four to five weeks. Combining skills-based training with in-class mentoring is known to be effective in improving the classroom practice of generalist teachers as theorized by situated learning approaches (see Section 2.5.7). The researcher was both an active member and observer to classroom events, an approach inspired by ethnographic studies (Wood & Smith, 2016).   The involvement of the mentor in classrooms changed as the intervention progressed. It began as complete participant, before moving to participant-as-observer, observer-as-participant and ending as complete observer, a continuum developed by Gold (1958) that moves from 'complete participation to complete detachment' (Cohen, Manion & Morrison, 2011, p.457). A similar phased reduction in mentoring has been an effective element of skills-based training in PE with generalist teachers (Miller, Eather, Gray, Sproule, Williams, Gore & Lubans, 2017). Mutual observation was key, in the way participants observed the mentor demonstrating the specialist skills required to teach SEND music before slowly trying themselves, at a pace that suited them, ideally becoming less reliant on the mentor over time. Drawing upon Kolb's experiential learning model (1984), Russell-Bowie (2013) describes the processes of reflective observation and active experimentation as vital to developing the competence and confidence levels of GTMS.

Corridor memos provided written accounts of reflective corridor conversations between the researcher and each participant, emailed by the researcher to individual participants for member checking after each lesson. Musicianship trackers were completed throughout each cycle of intervention by each participant (see Appendix 3.4) and emailed to the researcher at the end of each cycle of work. Broad areas of music subject knowledge and skills were identified by

the researcher on these musicianship trackers, in the absence of an agreed list of subject knowledge and musicianship skills GTSS require. They were identified using key strands of the music National Curriculum for primary-aged pupils and were underpinned by six main strands of music learning: singing, composing, improvising, playing, critical engagement and spiritual, moral, social and culture (Daubney, 2017, p.98). They also aligned closely with important areas in the development of skills-based musicianship amongst GTSS, as hypothesized for the purposes of this study (see Section 2.5.3). The reviewed content of music training models with GTMS (see Section 2.5.6) and the researcher's professional experience of SEND music teaching were also used to inform these trackers. Combining classroom observational data with other forms of data collection is a fairly common approach to classroom-based research (Wood & Smith, 2016). This approach best answered the research questions and addressed the aims of the study, by tracking changes in participant actions and beliefs as they engaged with training.

Semi-structured focus group discussions between the researcher and participants were conducted at the end of each cycle of intervention (see Appendix 3.5). This methodological approach was influenced by McLellan's (1996) model of instruction based on SLT because it was hypothesized that this would support GTSS to link their expert SEND pedagogy to their music teaching (see Section 2.5.7). Opportunities to network and engage in reflective dialogue with peers, alongside mentoring, have been identified as making a significant contribution to increased levels of skills, knowledge, confidence and enjoyment for teaching music amongst GTMS (Varvarigou, Creech & Hallam, 2012) and have been valued by GTMS in building a community of practice (Biasutti, Hennessy & Vugt-Jansen, 2015). Such opportunities were deemed essential within a SEND specific music training model, because they would be 'grounded in [the] real-world challenges' (Welch, 2021, p.1980) faced by GTSS, meaning they were able to develop their own grounded music teaching practice as a group of professionals through these discussions, a data collection method that would likely result in 'close to practice' research (Wyse et al., 2018) that was so urgently needed for this group of professionals. Reflective discussion has been seen to promote collaboration, networking, and the sharing of ideas and knowledge amongst GTMS (Powell, 2019), with GTMS appearing to be particularly open to collaborative working with colleagues regarding music teaching (Biasutti, 2012, p.240); it was anticipated that GTSS would behave in much the same

way. Having the opportunity to develop professional language as they master new aspects of professional practice has been crucial within GTMS music training in order to prevent teachers quickly reverting back to perceptions of music teaching being beyond their skill set (Ehrlin & Wallerstedt, 2014). Given the professional concern of the researcher that GTSS at the research school would present with particularly low levels of confidence to teach music (see Section 1.1), focus group discussions were seen as an important tool in facilitating a change of mindset amongst participants with regards their music teaching capabilities within this study.

This section has outlined in detail the range of data collection methods used in this mixed methods study. Other research has indicated that trainee GTMS develop their music teaching practice as a result of a number of different interactions with others (James, 2015) and that similar aspects of scaffolded mentoring are crucial to changes in knowledge, skills and confidence for teaching music within a community of practice (Barrett, Zhukov & Welch, 2019; Biasutti, Hennessy & Vugt-Jansen, 2015), thereby validating the multi-faceted approach taken in this study with GTSS. This resulted in a large amount of visual, transcribed, text-based and observational data. Despite the large volume of data collected, the researcher conducted analysis by hand in order to effectively capture participant stories as they emerged (Evans, 2013).

3.7 Approach to analysis of data

The use of theory can be inductive or deductive in qualitative research. Although this study was mixed methods, it was largely qualitative in nature (see Section 3.4.1). The analysis of the qualitative data was inductive, in-keeping with inspiration drawn from GT and ethnomethodology, with the key aim of generating grass-roots knowledge about the music training needs and music teaching experiences of GTSS. Despite the inductive nature of analysis, and prior to any analysis starting, it was important to acknowledge the existence of pre-existing theories (Silverman, 2010) and anticipated themes (Anderson, 2010) within the limited literature available regarding music training for generalist teachers (see Section 2.5.6) and from the researcher's professional experience (see Section 1.1). Analysis was heavily participant-specific from the outset, allowing for consideration of emergent themes that represented participant experience, thereby meeting the

essential criteria of representing participant voice. Analysing this study's data consistently over a 12-month period of data collection presented challenges that required careful management in order to ensure validity. One way in which this was handled in relation to transcribed verbal data was by adopting a consistent approach to coding transcribed data across all participants. The next section describes how data were transcribed, before the approach to coding and analysis is outlined.

3.7.1 Transcription of cross-phase audio and video recorded data

The first stage of analysis involved transcribing all audio and video recorded data per participant, working chronologically through the data collected. Transcription is often viewed as the first stage of analysis (King & Horrocks, 2010) as it typically allows the researcher to become close to the data (Langdridge & Hagger-Johnson, 2013). Given the extensive amount of data within this study and the essential criteria of remaining participant-led, this was key. Relevant data from all four phases of data collection were transcribed before later stages of analysis began.

The manner in which data sets were transcribed varied according to the nature of the data. Interviews (phases 2 & 4) and focus group discussions (phase 3) were transcribed word for word in an orthographic or verbatim manner (Braun & Clarke, 2013). Transcription of phonetic or paralinguistic features was not necessary, as the analysis of how language was used by participants was not relevant in terms of answering the research questions. Training sessions (phase 3) were generally not transcribed word for word, as the researcher typically dominated these sessions in terms of speech and so it was felt this would not support the representation of participant voice. However, key questions or comments from participants that appeared of particular interest were transcribed orthographically, alongside a brief outline of the content of the training session; training observation schedules were used to outline these details (see Appendix 3.6). Training session data were transcribed immediately after recording so that subsequent classroom-based training and mentoring within phase 3 would remain participant-led, because priorities that were specific to each participant emerged within training. Classroom observation data (phase 3) were processed using unstructured at first and then structured observation schedules (see Appendices 3.7a & 3.7b) and was not transcribed orthographically (see Section 3.7.5) because the actions of participants were most crucial to the analysis of data, rather than their words.

3.7.2 Coding and analysis of transcribed data

The consistent coding of transcribed data was informed by the work of Charmaz (2014). This approach applied to: phase 2 and 4 interview transcripts; phase 3 training session schedules/transcripts; phase 3 focus group transcripts. Transcription and analysis of the above data sets was conducted chronologically, working through all data sets in each phase before moving onto the next phase.

Firstly, a large number of initial codes or temporary constructs (Wilson, 2013), specific to each participant, were generated after early coding of each participant's transcript data. These initial codes were identified in the margin of transcripts (see Appendix 3.8 for an example) and typically increased in number as more participant transcripts were analysed. Once all four transcripts had been analysed per phase of data, these initial codes were used to structure analysis of transcribed data from subsequent phases of data collection. For example, initial codes that were identified at the end of the analysis of phase 2 interview data were used to structure the initial analysis of phase 3 training session and focus group data, as well as new codes being identified.

Once this accumulative approach to coding was complete, initial codes were revised, refined and merged together using a system of constant comparative analysis (Charmaz, 2014) so that a set of focused codes was identified for each phase of data. This process determined the 'adequacy and conceptual strength' (Charmaz, 2014, p.140) of the initial codes, highlighting those that were particularly frequent, interesting or surprising (Foley, 2016). Focused codes were paired with emerging themes that were prevalent within the data across different phases of data collection (see Appendix 3.9 for an example). Rare codes were removed at this point, synthesizing key themes across participants and data sets from all four phases of data collection. These emerging themes were then further organized as sub-themes under the overarching themes of experiences, perceptions and feelings as a means of measuring changes in participants' practice, attitudes and belief systems as they engaged with training (see Appendix 3.10 for final coding tree). Whilst there was a significant amount of transcribed data within this study, other forms of data collection were used and analysed in different ways, as outlined in the next sections.

3.7.3 Analysis of phase 1 survey data

The phase 1 survey generated qualitative and quantitative data regarding the music education experiences and current music teaching practices of teachers at the research school as a means of answering the first research question. Data were analysed manually by the researcher owing to the small number of participants. Quantitative data were generated from questions that made use of tick boxes, likert scales and rank ordering. Data generated from open-ended questions were coded qualitatively as a means of finding patterns within the data (see Appendix 3.11) that may have revealed crucial information about GTSS as an under-researched group of professionals. The two types of data are presented visually in the form of charts, with participant-specific findings presented separately to those of other teachers at the research school (see Sections 4.2 & 4.3). This was to ascertain whether the experiences of the four main-study participants were typical of their GTSS colleagues, indicating the potential wider applicability of the study's findings. It was essential to understand at this point whether or not there were areas of commonality between main-study participants and their colleagues, collective information potentially being reflective of the broader special sector.

3.7.4 Analysis of phase 2 (pre-intervention) data

Phase 2 signaled the start of data collection related to the four main-study participants. Initial analysis of phase two data involved reading through all data sets (timelines and transcribed individual interviews) per participant. The purpose of this phase was to explore participants' experiences of school music education, their teacher training in music and current music teaching practice, thereby answering the first research question. Whilst interview data were analysed in-depth (see Section 3.7.2), timelines were not specifically analysed. They instead acted as a visual summary of participants' music education experiences to date and were combined with interview data to form individual participants' rivers of music education experience. Emergent, participant-specific headlines or sensitizing concepts were identified by the researcher but based heavily on participant voice, providing a 'starting point for analysis' (Charmaz, 2014, p.117). These depicted what was particularly striking within each participant's set of data at this early stage of data collection and helped to form key lines of enquiry that were used to direct the reporting of data for each participant.

3.7.5 Analysis of phase 3 (mid-intervention) data

Phase 3 was the intervention stage of the study and was structured around three cycles of work with each of the four participants (see Table 5.1 for specific dates). This phase involved a range of data collection methods as a means of exploring which aspects of person-centred training were most crucial to developing the music knowledge and skill base of participants, collecting evidence of indicators of their growing mastery to teach music, thereby answering the second research question. Phase 3 data were analysed in specific ways, cycle by cycle, in order to meet the study's essential criteria of representing participant voice and providing bespoke support. Within the analysis of each cycle, training session data and focus group data were analysed first as a means of prioritizing participant voice. Data from corridor memos and musicianship trackers were scattered amongst the analysis of teacher talk from these data sets, providing another measure of participant voice in terms of developing practice. The analysis of teacher actions gathered through classroom observation data was then reported alongside this other data, in line with participants' key lines of enquiry.

Video-recorded classroom observation data were processed and analysed in two ways. Open or unstructured observation schedules were completed at first, per lesson and per participant, in the order in which they were filmed. The purpose of using unstructured formats was to ensure unexpected, participant-specific observational data were captured so that all teacher interactions and actions were noted, thereby supporting an inductive approach to analysis. Information from these detailed observations was then transferred onto structured observation schedules in order to collate and categorise information regarding the developing practice of participants. These also provided a means of tracking and comparing changes in teacher actions per participant, within and between cycles.

Structured observation schedules made use of categories of *content of music teaching* that were identified by the researcher. Much like the musicianship trackers that were used in this phase (see Section 3.6.6), these schedules were based on a combination of sources that the researcher drew upon in the absence of an agreed list of subject knowledge and musicianship skills GTSS require. These sources included the music National Curriculum (DfE, 2013), Daubney's (2017) six main strands of music learning, the reviewed content of music training models with GTMS (see Section 2.5.6) and the researcher's professional experience of SEND

music teaching. The categories relating to *signs of confidence/self-efficacy* were drawn from research on the classroom behaviours of efficacious teachers (Ashton & Webb, 1986; Smylie, 1989; Tschannen-Moran & Hoy, 2001). Structured observation schedules also made use of a section called *other aspects observed*. These categories were added in by the researcher after early viewings of classroom data revealed emerging and seemingly significant areas of practice, another example of how analysis was inductive in nature. Also, at this early point of analysis, the wording of some categories was changed slightly to ensure all observed teacher behaviours could be accounted for. For instance, Early Years (EY) participants (Ellie & Gemma) did not always give subject-specific feedback to pupils but instead frequently praised them for other, early developmental skills such as listening, looking and sitting. It was felt that these should be included as a form of feedback but classed as praise, the wording of this category changed to reflect this. Accommodating such changes highlighted another way in which data analysis was firmly inductive in nature. In relation to the two EY sample classrooms, the researcher felt the need to draw up a list of coding rules (see Appendix 3.12); the pupils in both EY sample classrooms were very similar and as such, the actions and interactions of both EY participants were extremely similar. It was therefore important that the vast amount of EY classroom observation data was coded consistently between participants.

3.7.6 Analysis of phase 4 (post-intervention) data

Phase 4 involved post-intervention interviews with individual participants as a means of exploring the impact of person-centred training and mentoring on participants' self-concept as musicians, levels of confidence and feelings of self-efficacy for teaching music, thereby addressing the second and third research questions. The cycle of initial coding, constant comparative analysis and focused coding that had been applied to phase 2 and 3 data was again applied to phase 4 data, initially being framed by the focused codes identified at the end of phase 3 (see Section 3.7.2).

3.8 Trustworthiness of the data

Qualitative studies face the ongoing challenge of ensuring and defending their validity, reliability and generalizability, terms long associated with quantitative

research. The role of the researcher as researcher-mentor within the intervention phase of this study, who then subsequently analysed this data in isolation, posed challenges for validity and reliability, some of which were mitigated against with specific approaches.

3.8.1 Validity

Validity in research involves considering 'the degree to which a method, a test or a research tool actually measures what it is supposed to measure' (Wellington, 2015, p.41) and whether a piece of research in its entirety shows what it claims to show (Goodman, 2008). Validating qualitative data was also essential to ensure the essential criteria of the study was met as the process of data collection and analysis unfolded. Merriam (1988) outlines various strategies that can be used to ensure internal validity. The application of these strategies in the specific context of this study is outlined below (see Table 3.1), as it is within another doctoral study that relied upon a similar qualitative approach amidst a lack of peer examination (Foley, 2016):

Table 3.1   Application of strategies to ensure internal validity

Approach	Use within phases 2 to 4 of this study
Multiple sources of data	Visual methods (timelines and rivers), individual interviews, classroom observations, corridor memos, musicianship trackers, focus group discussions.
Member checking	Participant rivers acted as a visual representation of timeline and individual interview data – these rivers were member checked. Corridor memos were shared via email between researcher and participants.
Long term or repeated observations	Phase 3 classroom observations lasted approximately 10 months.
Peer examination	Not used within this study – very individual journeys.
Participatory methods of research	Participant voice was part of the essential criteria underpinning this study and was represented extensively within phases 2 to 4 of data collection.
Researcher bias	Multiple forms of data collection and member checking was used to mitigate against this.

This study made particular use of multiple methods and member checking as measures of validity and in order to aid triangulation (Yin, 2014). The mixing of multiple methods, otherwise known as methodological triangulation (Patton, 2002), was key in terms of verifying the analysis of such large amounts of participant-driven, qualitative data. Validation of participant interpretation and perception of their changing music teaching practice was important given the notable lack of classroom observation in previous research involving the music teaching of generalist teachers. Classroom observation was therefore key in helping to verify participants' perceptions of their classroom practice. Member checking was essential in this study's efforts to understand and explore participant meaning and experience, and therefore acted as a further credibility check (Lincoln & Guba, 1985).

3.8.2 Reliability

This study did not seek to replicate its results in other studies or to make firm claims of generalizability; the purpose of this small-scale, case-specific study was to be participant-led within the specific context of the research school. However, given the absence of similar research, this study and the training model implemented may be of interest to the broader special school sector nationally and internationally (see

Section 1.3.4). Removing researcher bias, as is typically the aim with quantitative research, was not the aim within this mixed methods study. The researcher instead sought to 'maximise the benefits of engaging actively with the participants' (Yardley, 2008, p.237), this close engagement with the participants being a crucial aspect of the generation and analysis of data (McLeod, 2001).

3.9 Ethical considerations and limitations of the study

There were several ethical implications in the planning of this study, given it took place in the school in which the researcher worked and the researcher's senior role in the school. The influence this was likely to have on participants required careful consideration (Wellington, 2015). Full ethical approval was obtained from the University Research Ethics Committee for all aspects of the study (see Appendix 3.13). It was outlined within this that main-study participants would not be teachers that were line managed by the researcher or that were subject to investigations of teaching competence at the time.

3.9.1 Consent

Before the study was planned in any depth, verbal and informal permission from the Headteacher of the research school was sought and then written, informed consent gained later once the details of the study had been finalised. All teachers were asked to indicate consent for possible involvement in the main study within their phase 1 survey. The four main-study participants that were selected by the researcher, having taken into account the ethical considerations outlined above, were then asked to complete a specific consent form, which outlined in detail what their role in the research would entail. Gaining informed consent in this way is essential ethical behaviour (BERA, 2011; Wellington, 2015) and was particularly important in the context of this study, given the long-term commitment required from participants. Once consent from the main-study participants had been sought, all support staff and parents of pupils in their classes were asked to complete consent forms (see Appendix 3.14). The right to withdraw from the study was explained to all parties within these forms.

3.9.2 Confidentiality

All collected data were handled sensitively and carefully throughout the course of the research. Confidentiality was secured by changing any details that

could identify the participants, their pupils or the school, and by storing both paper-based and electronic data securely. This was particularly important in the context of the video-based data that were gathered, which was stored on a password-protected, external hard drive.

3.10 Summary

This chapter outlined the key philosophical positions that underpin worldviews within the social sciences (Section 3.2), leading on to an exploration of the ontological and epistemological considerations of this study (Section 3.3). These were justified in light of the research questions, aims and essential criteria of the study. Theoretical underpinning was based on child-centred learning theory, adapted to learner-centred theory for the purposes of the adult participants of this study. Aspects of GT and ethnomethodology supported the chosen research paradigm and the qualitative methodology in order to generate the right kind of data to answer the research questions (Section 3.4). The chosen research strategy and associated methods were set within a case study approach (Section 3.5). Fieldwork took place in four phases of data collection (Section 3.6) and plans to analyse the data in an inductive manner were discussed (Section 3.7). The reliability and validity of the data was addressed (Section 3.8). Ethical considerations were presented, confirmation of ethical approval provided and the limitations of the study considered (Section 3.9).

The planning of this study was heavily framed by the review of the literature, which had identified a gap in professional knowledge and practice: understanding the music teaching practices and training needs of GTSS. The following two chapters will present findings from the analysis of data across all four phases of data collection. The term *findings* is used as opposed to the term *results*, as the former is typically used in qualitative research (Shank & Brown, 2007).

4.0 Phase 1 Survey Findings

This chapter presents findings from a survey distributed within phase 1 of data collection to all teachers at the research school to provide context for the discussion of main-study participant data presented in chapter 5. Survey data are reported in relation to the first research question (see Section 2.6). Data are reported under the themes of music background and training (Section 4.2), and current music teaching practice and attitudes towards musicianship (Section 4.3). Within each section, data are presented qualitatively alongside the raw data. Survey responses from the main-study participants are presented separately to those of other teachers at the research school within the raw data. This was in order to illustrate whether the pre-intervention experiences of the main-study participants mirrored those of a larger population of Generalist Teachers in Special Schools (GTSS), discussing the potential significance of this within the context of the reviewed literature and within the music education research field, given the notable absence of work relating to the music teaching practices of GTSS.

4.1 Sample and response rate

The survey was distributed to all teachers including the four main-study participants (n=30) at the research school in January 2019 after ethical approval and piloting of the survey (see Sections 3.9 & 3.6.2 respectively). 20 surveys (including those of the four main-study participants) were completed and handed back to the researcher, indicating a 66% response rate.

4.2 Music background and training

Teachers typically engaged with a range of music activities in childhood (see Figure 4.1). The majority (81%, n=13/16) received classroom-based music lessons in primary and secondary school. Most (69%, n=11/16) received instrumental or singing lessons and many (56%, n=9/16) were also part of an instrumental group or choir at school. These figures were higher amongst the main-study participants, where the above statements were true of all four teachers:

Figure 4.1   Childhood music experiences
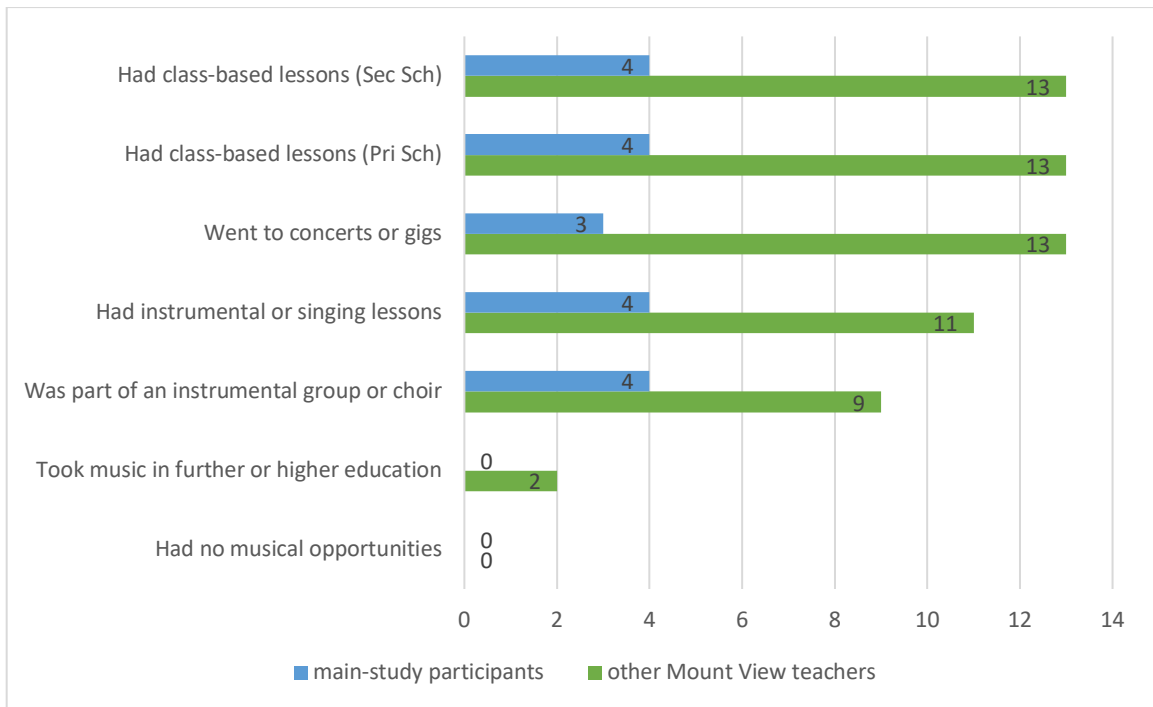
The majority of teachers, excluding the main-study participants (81%, n=13/16), recalled little or very little music training within ITT or as part of general Continuing Professional Development (CPD – see Figure 4.2). This was true of 50% (n=2/2) of the main-study participants:

Figure 4.2   Music training experiences
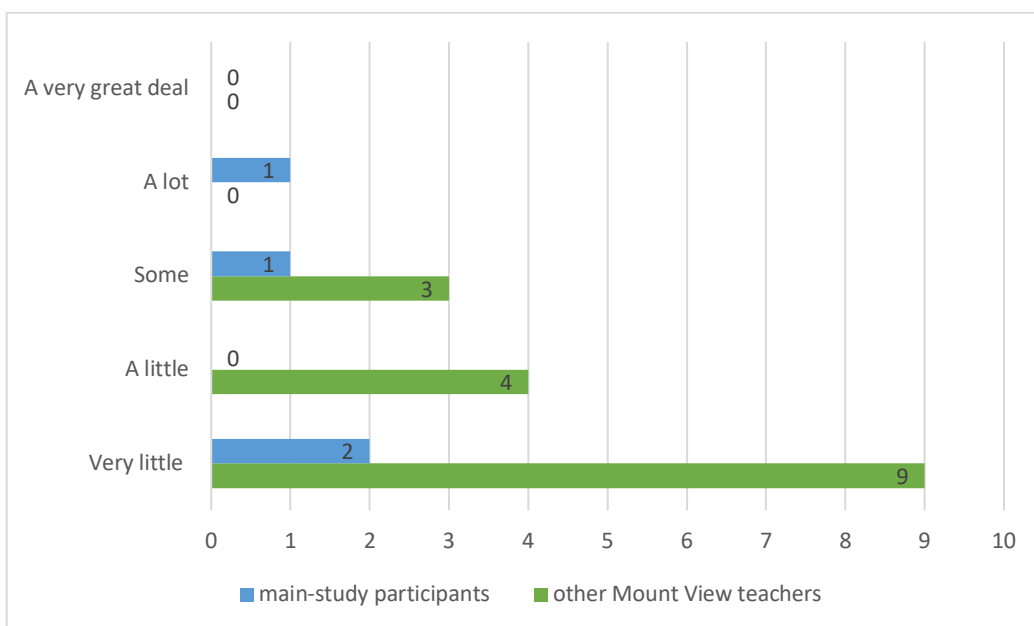
Despite the difference between the main-study participants and their colleagues, it is important to observe this as a possible general trend related to the wider population of GTSS, based on the training experiences of Generalist Teachers in Mainstream Schools (GTMS – see Section 2.5.6). This may offer a plausible reason for the knowledge, skills and confidence gap amongst GTMS documented within the literature, despite the range of childhood music experiences they may also have experienced.

4.3 Current music teaching practice

Figure 4.3 indicates that, out of a total of 30 responses, the most common music teaching activities involve leading the children in performing using voices or song (37%, n=11/30) and listening to or appraising music (30%, n=9/30), corroborating research with GTMS (Holden & Button, 2006). Instrumental work (20%, n=6/30), composition (7%, n=2) and music technology (7%, n=2) feature infrequently in music lessons, findings consistent with research involving GTMS (Barret, Zhukov & Welch, 2019; Ebbeck, Yim & Lee, 2008; Thorn & Brasche, 2015):

Figure 4.3   *Music activities most frequently used in the classroom*
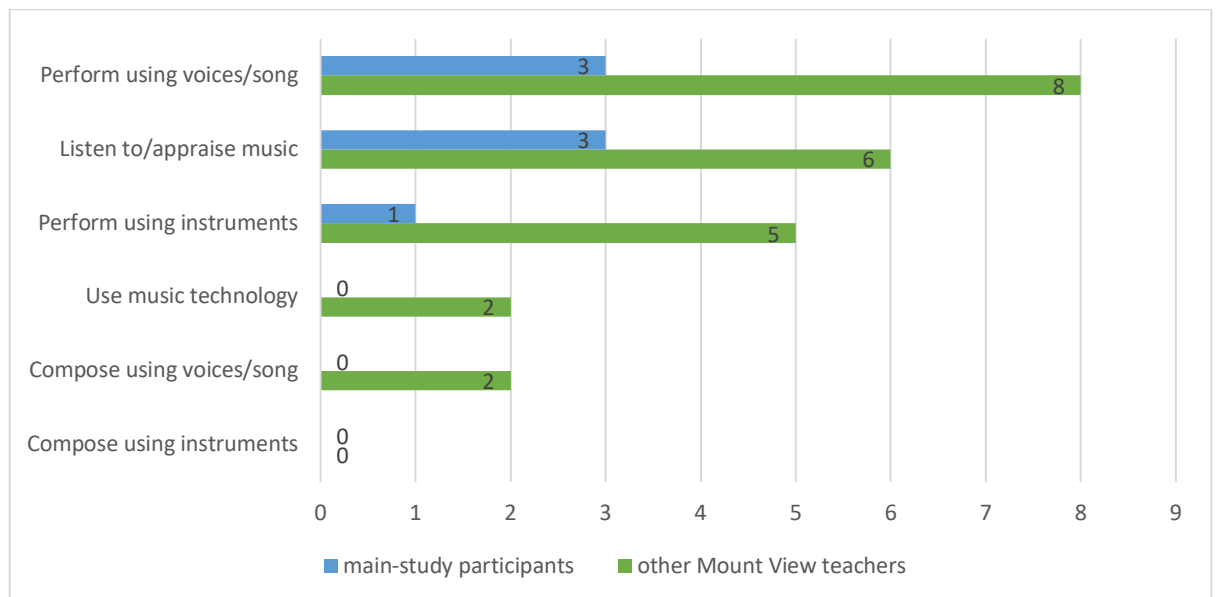
Teachers cited a number of reasons for their limited use of certain music activities, including: a lack of experience of teaching music in special school settings meaning they lack knowledge of how to do this (31%, n=8/26); perceptions of music activities not being accessible to pupils with Special Educational Needs and Disabilities

(SEND) because of their complex music learning profiles (27%, n=7/26); a lack of confidence in being able to deliver a formal music curriculum (15%, n=4/20). Qualitative survey data gathered from open questioning were thematically coded and then presented numerically, as depicted in Figure 4.4:

Figure 4.4   Reasons given for infrequent use of certain music activities
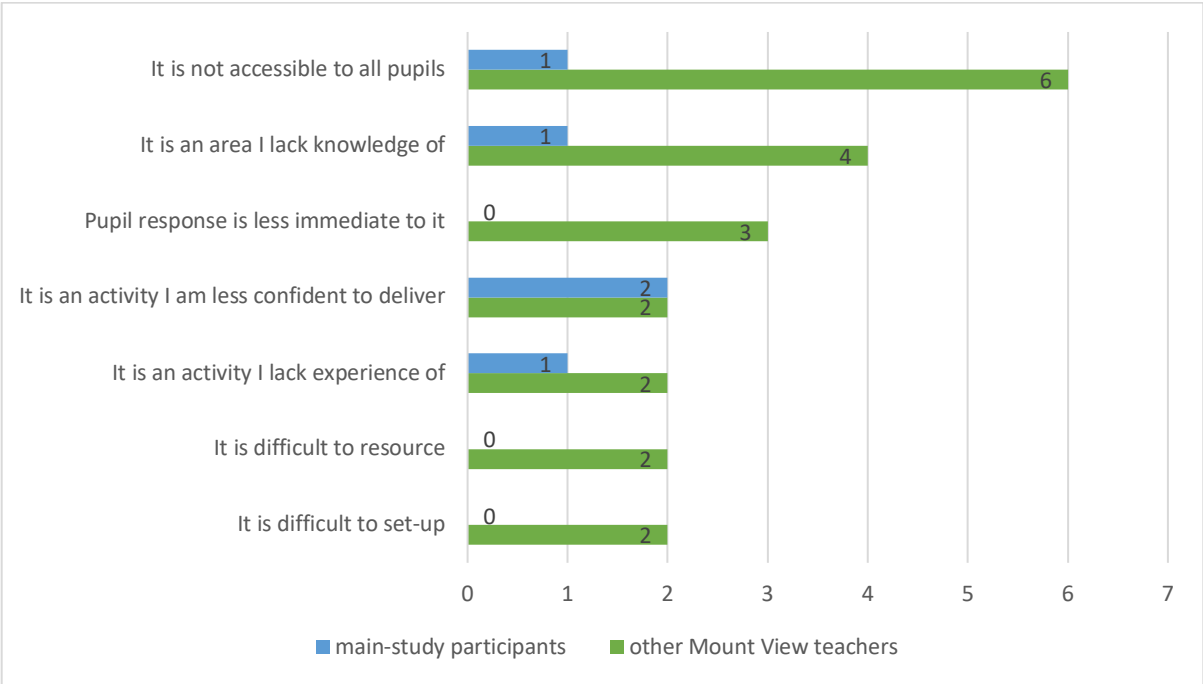
This information is key as it reveals that the gaps in practice of the main-study participants somewhat mirror those of their GTSS colleagues. Although these are the views and experiences of GTSS in only one school, they potentially provide a broader indication of a sector-wide professional shortcoming and the specific areas of practice that training may need to address.

4.4 Summary

The results of this survey are limited because they represent the experiences of a small number of GTSS, in only one special school. Survey findings indicate that the experiences of GTSS in the research school are typical of the wider population of GTMS, and that the experiences of the main-study participants largely mirror those of their GTSS colleagues in the research school. It is therefore tentatively suggested that the success of the training intervention within the main study could be replicated with a wider population of GTSS, both within the research

school and possibly within other special schools. However, it is acknowledged that claims of applicability beyond the research school are limited given the small-scale nature of the survey and the case study approach to the research (see Section 3.5.1). There was an imbalanced use of quantitative and qualitative data in this study, the former solely being collected through this small-scale survey. Despite its limitations, the survey offered a valuable insight into the music training and teaching experiences of GTSS, an under-represented group of professionals within the literature (see Sections 2.5.4 & 2.5.6). The researcher determined that it was therefore important to examine the views of the wider population of GTSS in the research school, before working with a smaller number of main-study participants.

Despite engagement with formal and informal music education experiences during childhood, a significant proportion of teachers report a lack of professional training in classroom musicianship and in how to teach music at both a pre- and in-service level (see Section 4.2). They appear entirely unprepared to deliver curriculum music provision to pupils with SEND (see Section 4.3), indicating that being musically educated through early life experiences does not equate to being able to teach music in specialist settings. This highlights an urgent professional need for training that is based on the real-world classroom settings of GTSS, thereby supporting the implementation of a grass-roots training model within the main study. The following chapter tells individual narratives of the four main-study participants as they engaged with training, crucially detailing how training was implemented so that it may be replicated in other special school settings.

5.0 Main Study Findings

This chapter presents detailed findings from the four main-study participants collected during phases 2, 3 and 4 of data collection, as a means of answering all three research questions (see Section 2.6). Designing a small-scale study allowed the training and mentoring model implemented within the main study to be highly personalized to each participant's music training needs. Findings are reported for each individual using pseudonyms, starting with Anna (Section 5.1), Ellie (Section 5.2), Gemma (see Section 5.3) and ending with Imogen (Section 5.4). Data are presented chronologically per participant as a personal narrative pre-, mid- and post-intervention, remaining true to the sequence of events whilst using participants' own words to foreground participant voice. This reporting of data is consistent with the study's aims and theoretical position (see Section 3.3), as it seeks to present participants' experiences of person-centred training in Special Educational Needs and Disabilities (SEND) music.

Table 5.1 provides an overview of the large amount of qualitative data collected over a one-year period and explains how these data are referenced in this chapter:

Table 5.1   Overview of how qualitative data were collected

Phase 2	Timelines of music education experiences [TL 01/19]
	Pre-intervention Interviews [Int1 02/19] – audio recorded
January-February 2019	Rivers of music learning experience [Riv 02/19]
Phase 3: Intervention phase *Cycle 1: February-April 2019* *Cycle 2: May–July 2019* *Cycle 3: October-December 2019*	Training Sessions [TS1 02/19 – TS2 05/19 – TS3 10/19] – video recorded Classroom Observations [CO cycle 1/2/3 + lesson 1/2/3/4/5 in cycle] – video recorded Focus Group discussions [FG1 04/19 – FG2 07/19 – FG3 12/19] – audio recorded Musicianship Trackers [MT1 – MT2 – MT3] Corridor Memos [CM1 – CM2 – CM3 + date] *NB. The number next to each type of data refers to the cycle of intervention the data are from, for example:* *TS1 means Training Session, cycle 1* *FG3 means Focus Group discussion, cycle 3*
Phase 4 *January 2020*	Post-intervention Interviews [Int2 01/20] – audio recorded

There were some gaps in these data sets (Gemma did not provide a timeline and Ellie did not provide musicianship trackers). However, the triangulation of data using other methods (see Section 3.8.1) meant this had minimal impact on findings.

One of the challenges of reporting qualitative data is the breadth of detail that it contains (Savin-Baden & Howell Major, 2013; Wellington, 2015). In this chapter, data from phase 2 timelines, pre-intervention interviews and rivers of music learning experience are presented first to answer research question 1. Written data from each participant's timeline are included alongside thematic analysis of interview data in order to examine their music education experiences to date and the impact these have had on their present-day practice, including each participant's ideas on how to develop their practice. Incorporating teacher ideas like this, in their own words, is a reporting technique used in other music studies (Cox, 1999; Odena & Welch, 2007; Stunell, 2010) and is important in meetings this study's essential

criteria of representing participant voice and offering person-centred training and mentoring. This information is summarised visually in each participant's river of music learning experience in order to show the highly individual and variable music learning journey of participants pre-intervention; phase 2 interview data are shown in speech marks on these rivers. At the end of this section, key lines of enquiry are stated; although identified by the researcher these are largely based on participants' self-perceived training needs as drawn from participants' own comments. These are then tracked within the subsequent reporting of data from phases 3 and 4 (see Table 5.1) as a means of monitoring the impact of person-centred training and mentoring on participants.

Data collected during phase 3, the intervention phase where participants were trained in SEND music teaching, are then presented to answer research questions 2 and 3. Phase 3 data were analysed in different ways (see Section 3.7.5) in order to collect evidence of the growing mastery of participant practice and actions indicative of confident teaching. Each participant's section details key ways in which their musicianship and Pedagogical Content Knowledge (PCK) developed but does not represent the total amount of data collected. The researcher was selective about which data to report in order to make sense of the vast amount of information pertaining to each participant. Specific details about the training and mentoring provided during the intervention phase are also clearly outlined in order to identify during later discussion which specific aspects of this support were most impactful upon participant practice. The mentor provided training and mentoring in two main ways; through a skills-based, group training session at the beginning of each cycle of intervention and then through personalized mentoring in individual teachers' classrooms for the remaining weeks of each cycle (see Section 3.6.6). The content and aims of each training session are summarised in Figure 5.1. Each session built upon the progress participants had made in the previous cycle:

Figure 5.1   Content and aims of SEND music training

Training Session 1: February 2019

Content
Defined & explained the musical elements using familiar pop songs

Taught 8 classroom chants/songs, including body percussion activities, linked to the musical elements

Taught warm-up songs & activities, including vocal warm-ups

Explained how to select appropriate songs within relevant pitch range for pupils

Modelled posture when singing

Demonstrated strategies for finding starting note when singing

Named UPI

Encouraged exploration of feel & sounds of UPI, including how to handle UPI

Clarified difference between tuned/untuned percussion instruments

Taught cues, rhymes & attention songs to manage the classroom, particularly instrumental work

Aims
To address misconceptions & gaps in knowledge about the musical elements

To introduce some practical ways to teach with the musical elements

To instil high standards of classroom singing

To ensure appropriate & accessible songs are selected for pupils

To ensure all pupils can access instrumental activities

To address misconceptions & gaps in knowledge about UPI

To ensure instrumental work is led confidently, leading to focused learning experiences that are not disrupted by behaviour

Training Session 2: May 2019

Content
Taught 3 further classroom chants/songs, including body percussion activities, linked to the musical elements

Taught cues, rhymes & attention songs to manage the classroom, particularly instrumental work

Demonstrated a call & response activity (using voice & drums)

Engaged participants in a musical sensory story

Engaged participants in a composition task, making use of visual cards

Introduced Sounds of Intent assessment system – observing & recognising musical behaviours in SEND context

Aims

To introduce further practical ways to teach with the musical elements

To expand the appropriate song repertoire available to pupils

To ensure instrumental work is led confidently, leading to focused learning experiences that are not disrupted by behaviour

To introduce a new musical structure (call & response), also modelling new approaches to vocal/instrumental work

To translate musical actions & behaviours of pupils with SEND into an overall map of musical development, so that planning & assessment becomes more informed

To model the importance of multi-sensory tools and strategies in the SENC context

To introduce suitable approaches to composition for pupils with SEND

Training Session 3: October 2019

Content
Taught 4 further classroom chants/songs, including body percussion activities, linked to the musical elements

Explained meaning of scales & taught specific patterns of pentatonic & chromatic scales

Engaged participants in body percussion activity involving graphic scores, later asking them to write their own graphic scores

Engaged participants in a composition task that involved composing a soundtrack to a given stimulus e.g. story book, short animated film etc.

Aims

To introduce further practical ways to teach with the musical elements

To further expand the appropriate song repertoire available to pupils

To extend levels of musical literacy

To provide ideas of how to incorporate work with scales into (tuned) instrumental work

To introduce alternative forms of notation, suited to the SEND context

To extend suitable approaches to composition to the SEND context

The content of classroom mentoring is detailed on individual timelines that were constructed by the researcher, specific to each participant's phase 3 experiences

outlined within Sections 5.1 to 5.4. The purpose of these is to share key moments of transition in the music teaching and developing PCK of participants, alongside key aspects of training and mentoring specific to individual participants. Data from classroom observations are presented chronologically, largely related to their key lines of enquiry. Unlike phase 2 rivers, the researcher did not apply set criteria in the construction of these timelines because the intention was not to show whether experiences or actions were positive or negative. Timeline data are triangulated with other phase 3 data, including corridor memos, musicianship trackers and focus group discussions within the main body of the chapter, in order to understand the significance of these changes in practice, from the perspective of participants.

Data from post-intervention interviews (phase 4) are presented last, also to answer research questions 2 and 3. Thematic analysis of each participant's interview was undertaken to further understand the impact that the training and mentoring model implemented within the intervention had on participants' developing experiences, perceptions and feelings. Each participant section ends with a summary, outlining the significance of participant-specific findings according to their key lines of enquiry, before areas of commonality and reoccurring themes between participants are identified in a chapter summary (see Section 5.5). Presenting individual realities before interrogating these as potential collective themes is an approach used in other music education studies (Burnard, 2000).

In order to establish a credible way of assessing the impact of the intervention, the nature and quality of participants' classroom practice and responses as they engaged with training and mentoring was assessed against a set of criteria. This criteria was derived from research that has: determined key areas of musicianship training for GTSS (see Table 2.2); examined the development self-efficacy for teaching music amongst GTMS (Wagoner, 2015); defined and measured music teaching confidence amongst GTMS (Thorn & Brasche, 2020); discussed mentoring as a form of cognitive apprenticeship (Catalano, 2015; Duncombe, Cale & Harris, 2018; Morgan, Bryant, Edwards & Mitchell-Williams, 2019) moving from complete involvement to complete detachment in classrooms (Gold, 1958). The marking criteria was organised into three sequential phases inspired by Kolb's (1984/2014) experiential learning cycle. It was felt that this system would best capture participants' developing knowledge and skills base, and the application of this within their pedagogical practice:

The *concrete experience* phase involved participants being exposed to music learning and activities, such as instrumental learning, as beginners. They were entirely dependent on the mentor to explain and clarify concepts such as pulse and rhythm, some of which were completely new to participants. Unable to hear some of these concepts in their own and others' performing, they were starting to apply these to classroom teaching directly by the side of the mentor by the end of this phase.

The *emerging application* phase followed this and emerged as a combination of Kolb's (1984/2014) reflective observation and abstract conceptualization stages. A different term was used in the context of this study because it was felt this more accurately represented the practical change in participants' classroom actions. This phase saw participants apply their developing music subject knowledge and musicianship skills to the classroom within simple and short activities that had previously been modelled by the mentor. They began to recognize their own musicianship skills and those of their pupils. Although participants started to initiate and lead some activities with increasing confidence, they were still reliant on the mentor for reassurance at times.

Within the *active experimentation* phase participants were drawing upon their music subject knowledge and classroom musicianship skills fluently and at times spontaneously within a wider range of music teaching activities, some of which they had devised themselves by adapting repertoire, resources and everyday items. This meant they were differentiating music provision for pupils, effectively meeting the music learning needs of pupils in their class and challenging their most able. Participants were confidently leading music teaching for longer periods of time, at times successfully teaching full-length (45 minute) music lessons without needing any input from the mentor. They were persevering through moments of challenge as autonomous and professional teachers of SEND music, actions that were indicative of their high levels of self-efficacy.

5.1 Anna

Anna had just under 20 years of teaching experience as both a GTMS and GTSS at the start of the study. Anna taught key stage 2 pupils with Severe Learning Difficulties (SLD) and autism.

5.1.1 Phase 2

Anna's river [Riv 02/19 – see Figure 5.2] reveals quite a few curves (or critical moments) and some streams (or disruptions), becoming wider at certain points (indicating intense musical periods) and thinning out at others (indicating less active musical periods). Particularly significant were her contrasting experiences of music education at secondary school compared to primary school, and the limitations she later faced when teaching music in mainstream settings:

Figure 5.2

Anna's pre-intervention River of Music Learning Experience

Recalls being sung to as a child by parents - *"I can remember my mum singing lots of nursery rhymes, just singing lots of lullabies... singing was a happy thing"*

Starts primary school

Experiences weekly singing sessions & instrumental lessons at primary school. Learns to read music there - *"it was a celebration it was a coming together... it's given me more confidence in being able to project myself through singing... it doesn't matter what my voice sounds like"*

Isn't chosen for violin lessons by school & family can't afford these lessons anyway

Starts secondary school

Has one classroom music lesson per week & tries to carry on with instrumental lessons but doesn't manage to - *"[music] was a very separate lesson and it was basically seen as a mess about lesson...it wasn't seen as being cool... all I can remember is doing the xylophone and copying patterns and working in groups so that it was like in a round"*

Takes part in school productions at secondary school

Trains as a primary school teacher - *"I can't actually remember what we actually did I know we must have done something because we covered every aspect of the curriculum"*

Works as an EYFS and KS1 teacher in mainstream; links music to the teaching of other skills such as reading - *"in early years and in lower school it was seen as that's ok to do"*

Recalls some useful training but restrictions of KS2 mainstream teaching & focus on results - *"I do remember Beat Baby training... it was a really practical course...that was really really inspiring but I didn't get much opportunity to use that...[owing to] the restrictions of the curriculum...and also the expectations of some schools...I had some [other] training that made me see that I can use singing as a way of getting children engaged"*

Works as a special school teacher; experiences some phonics training that uses music to teach phonics but struggles with some of the technical music terms - *"I didn't know what they were on about"*

Anna recalled positive experiences of formal music education at primary school and of music experiences at Sunday school [TL 01/19]. However, in her pre-intervention interview [Int1 02/19], she described music as having *"fizzled out"* at secondary school and she could not recall any music training within her ITT (Initial Teacher Training). Her subsequent experiences as a mainstream teacher and the absence of music within the timetable left her lacking the confidence to teach music and feeling like *"a fish out of water"*. Anna did not mention any music Continuous Professional Development (CPD) that she received once qualified.

Anna's music subject knowledge and classroom musicianship was assessed as being within the *concrete experience* phase pre-intervention because her comments reveal she was unsure of basic terms that were deemed important for GTSS (see Table 2.2). She explained *"it's knowing the correct terminology for things…what they actually are like rhythm beat tempo"*. These comments show that Anna was aware of key musical terms but did not understand them, and so was not able to apply these within her music teaching or support pupils in their learning of these terms. Anna felt this had previously limited her pupils' musicianship because she didn't *"know how to push them…I felt that there was perhaps a lot more potential from what I actually did"*. Anna also admitted *"I don't actually know what I'm doing"* with instruments and was worried about managing them in the classroom, recalling the *"chaos that ensued"* previously.

Anna wanted her teaching of music to support other curriculum subjects *"so [music's] not seen as a separate entity"*. She believed that pupils with SEND engage better with music than they do with what she defined as *"formal learning"*, attributing this perception to her experiences of teaching music within mainstream schools *"and the formality and non-formality of music compared with other subjects"*. Anna's comments suggest she viewed and planned for music as a tool to complement and support progress in other subjects, rather than as an essential subject within the curriculum for pupils with SEND.

The key lines of enquiry to be tracked further were Anna's:
- subject knowledge, specifically her understanding of the musical elements and use of these within her own playing and teaching;

- skills to plan for and lead classroom instrumental work, including her PCK of how to teach with instruments;

- perceptions of music being an informal aspect of the special school curriculum and a tool through which to teach other curriculum subjects.

5.1.2 Phase 3

Anna's timeline of music learning experiences during the intervention phase is shown in Figure 5.3 below:

Figure 5.3   Anna's timeline of music learning experiences

Start of Intervention
February 2019

Training Session 1 [TS1 02/19]
See Figure 5.2

CYCLE 1 classroom mentor actions
Introduces technical musical terms to pupils [L1]
Introduces 'call & response' activity [L1]
Uses motivating strategies to teach musical concepts [L2]
Models how to hold a djembe drum between knees to achieve resonant sound [L2]
Models specific strategies & expectations to manage instrumental work e.g. turn taking, stopping, locking fingers [L3]
Models musical concepts to pupils then allows them to trial these [L4]

Encourages pupils to demonstrate their prior skills & knowledge [CO1 L3] and questions them about their subject knowledge [CO1 L4]

Splits pupils into pulse & rhythm clapping groups [CO1 L4]

Identifies appropriately sized drums for pupils to they can hold them between knees properly [CO1 L4]

Training Session 2 [TS2 05/19]
See Figure 5.2

CYCLE 2 classroom mentor actions
Models how to read & follow a graphic score & gives pupils a choice about which instrument to play [L1]
Sings song to pupils first & asks them to copy back [L1, L2]
Asks pupils to conduct [L1] & count each other in [L2]
Uses the term 'accelerando' with more able pupils & organises pupils into ability groups [L2]
Models strategies for handing out instruments & chants for bringing instrumental playing to a stop [L1], and for regaining control of an instrumental activity [L3]
Models how to play in time to the pulse [L1, L3]
Models how to build sound effects for a short film & how to rehearse instrumental work [L3]

Uses the *ready steady go/stop* chant confidently to control instrumental work [CO2 L1, L3]

Uses the term 'accelerando' [CO2 L2]

Positions herself in the middle of the instrumental group & conducts them confidently [CO2 L5]

Training Session 3 [TS3 10/19]
See Figure 5.2

CYCLE 3 classroom mentor actions
Introduces a call & response song – rehearses each section first [L1]
Models part-playing with instruments & groups pupils for this [L1]
Models composing task using pictures to prompt rhythms [L1]
Teaches warm-up & action songs [L1] & encourages pupils to lead a chant/song they know well [L1, L2]
Asks pupils to tidy up instruments rather than staff [L1]
Uses strategies for handing instruments out [L2]
Models how to support pupils with physical restrictions to play instruments [L1] & to clap using beaters instead [L2]
Questions pupils & asks them to appraise performances [L2]
Tests pupil understanding of musical elements [L2]
Uses the words 'dynamics' & 'polyrhythms' with more able pupils [L2]
Introduces the concept of a 'round' [L2]
Models how to lead a musical plenary & musically assess pupils [L2]
Asks pupils to make musical choices in warm-up song [L3]
Explains the term 'anacrusis' to more able pupils [L3]
Suggests where to sit stronger singers as part of group singing performance [L4]

Creates own chants to teach the concept of 'pulse' to pupils [CO3 L1]

Leads a call & response activity involving voices & instruments [CO3 L1, L2]

Models the difference between 'rhythm' & 'pulse' using a wider range of resources [CO3 L1, L2]

Shows pupils how to play in a round [CO3 L2]

Uses symbols & photographs of objects for pupils to construct chant to rhythm of words [CO3 L2]

Assesses pupils and corrects their misunderstandings of the musical elements [CO3 L2]

Initiates songwriting activity [CO3 L4]

Uses the term 'melody' [CO3 L4]

Differentiates teaching [CO3 L4]

End of Intervention
December 2019

As also illustrated within her phase 2 data (see Section 5.1.1), Anna's understanding of the musical elements was assessed as being within the *concrete experience* phase at the beginning of the intervention, leading the mentor to address this in group training (see Figure 5.1). She lacked key areas of music subject knowledge and classroom musicianship that were anticipated to be important for GTSS (see Table 2.2), as evidenced by the way she could not define simple concepts, asking *"what's the beat?"*, and by the way she struggled to keep the pulse to the most basic of songs [TS1 02/19]. Alongside these gaps in her rhythmic ability, Anna's tonal ability was also poor. She could not pitch match notes, explaining *"I can't hear that it's the same"* [TS1 02/19] when the mentor played a well-known melody on the xylophone. Initially, Anna simply watched as the mentor led musical games involving the musical elements [CO1 L1]. Although she began to model key terms such as 'rhythm' by clapping a simple rhythm and 'pitch' by singing a high and low note, asking pupils to copy these back to her [CO1 L2], she did not label these terms for pupils, leaving the mentor to do so.

Towards the end of the first cycle of intervention, there were indications that Anna's music subject knowledge was progressing into the *emerging application* phase. She asked a pupil to explain the term 'pulse' and modelled how to keep a steady pulse by clapping along to a chant, before making a decision independent of the mentor to split the class into pulse and rhythm clapping groups. She modelled more complex rhythms for pupils to copy in their groups, labelling these terms clearly [CO1 L4]. She instructed a Teaching Assistant (TA) who was working with a group of pupils to *"keep the pulse going all the time"* [CO1 L4], evidence of her growing ability to scaffold learning in the music classroom, an important aspect of SEND pedagogy (Hammel, 2017). As Anna became increasingly familiar with the musical elements, her aural discrimination skills improved. For example, she noticed when a pupil played the melody of a song by ear at the piano [CO2 L1] and when he was accurately tapping the pulse [CO2 L2]. She could hear the difference between the melody and the drone in pupils' playing [CM2 18.06.19], and when a pupil responded in time as part of a call and response activity [CO3 L1].

By cycle 3, Anna's improved subject knowledge generated aspects of PCK in SEND music, meaning she was assessed as working within the *active experimentation* phase. She created her own teaching ideas and strategies that were effective. For example, she created the chants '*nice and steady goes the beat*'

and '*like a clock that goes tick tock*' to teach the term pulse [CO3 L1]. She used a wider range of resources in her teaching, for example, she demonstrated the difference between the pulse and rhythm using a woodblock [CO3 L1] and claves [CO3 L2] rather than just clapping as she had before [CO1 L2]. She then split the class into pulse and rhythm groups, modelling each part using a combination of singing, chanting, body percussion and actions [CO3 L2] rather than simple clapping as before [CO1 L4]. Anna asked pupils to write their own lyrics to a known melody [CO3 L4], a challenging task to extend pupil understanding of this term rather than simply modelling the concept for pupils [CO1 L2, L4]. Anna had the confidence to differentiate activities in response to what she knew pupils could do [CM2 12.06.19/18.06.19, CO3 L4]. She accurately assessed pupils' understanding of the musical elements [CM3 14.10.19], correcting misunderstandings where needed [CO1 L4, CO3 L2]. Her feelings of having an improved understanding of the musical elements [MT2] and of being *"a lot more confident taking the children further on from where they already are"* [FG3 12/19] appear justified in light of her actions.

Early on during the intervention, Anna was nervous of leading drumming without the support of the mentor [CM1 28.02.19] and was therefore assessed as working firmly within the *concrete experience* phase. The mentor initially modelled how to manage drumming work using chants and songs (see Figure 5.3). Anna soon felt confident to use the 'tidy up' song [CM1 07.03.19], moving somewhat into the *emerging application* phase but appeared more hesitant leading the 'go/stop' chant, needing prompting from the mentor to do so proactively [CO1 L2, L4]. At the end of cycle 1, Anna talked openly about how teaching with drums was *"something I [had] never ever done before"* [FG1 04/19]. Although she still lacked confidence in her instrumental leadership skills at this point [MT1], Anna recognised that having tidy up strategies was a key change in her practice [CM1 07.03.19].

By the beginning of cycle 2, Anna was working more consistently within the *emerging application* phase. She used the 'go/stop' chant promptly and confidently to signal to pupils that their turn was finished [CO2 L1, L3]. It appeared that once Anna had this basic control of drumming, she was ready to conduct larger groups, counting them in confidently [CO2 L2]. Although she still looked at the mentor at first for reassurance that she had cued pupils in correctly [CO2 L3], she soon counted and cued them in independently using verbal, albeit a little disruptive, instructions

such as "*come on*" and "*that's when you play your whistle*" [CO2 L4]. By the end of cycle 2, she conducted from the front fluently using a range of non-verbal and less disruptive cues such as nodding, pointing and a 'stop' hand gesture. Whilst she still used some verbal instructions such as "*fingers locked together*" and "*keep it still*" to manage the ensemble, she combined these with physical and gestural prompts that were more appropriate for SLD learners, for example, by locking her own fingers together [CO2 L5]. Whilst previously music rehearsals had gone "*absolutely pear shaped*" [FG2 07/19] Anna felt she now had the classroom musicianship skills to conduct classroom drumming convincingly [MT2] and was therefore assessed as moving into the *active experimentation* phase.

Once Anna had the musicianship skills and some experience of leading group drumming activities, she began to demonstrate PCK in this area of her practice at the beginning of cycle 3 and was therefore working fully within the *active experimentation* phase. She supported a pupil to respond to the mentor's 'call' as part of a call and response activity [CO3 L1] and then led a call and response drumming activity. Although she needed prompts from the mentor to keep her 'call' consistent and simple [CO3 L2], the fact that Anna was composing her own rhythms as part of this signaled a significant improvement in her rhythmic ability based on the hypothesized skills required of GTSS (see Table 2.2). Anna taught two pupils how to play in a 'round' and explained the meaning of this when a TA asked [CO3 L2]. She planned to teach the concept of a 'round' to pupils by singing '*London's Burning*' with them in a round before transferring this to drums [CM3 14.10.19], something she went on to do in the classroom for a full 45-minute lesson [CO3 L3, L4]. Anna also demonstrated an informed understanding of the timbres of different instruments, advising a pupil to avoid playing the rhythm of the round on the triangle because of its lingering and resonant sound, knowing he would struggle to aurally discriminate between the pulse and rhythm [CO3 L2]. Towards the end of the intervention, Anna shared ideas for composing and performing a Samba Christmas carol with her class [CO3 L1], a clear sign of the confidence she had in her ability to lead drumming work. She commented that "*children who would normally have maybe launched them just joined in…so it shows it can be done*" [FG3 12/19].

As Anna's confidence grew, she reflected on the negative impact of mainstream teaching experiences. She commented that "*over the years I've taught*

so little music…[I] was given a book and I followed a CD" [FG1 04/19] and explained how a lack of experience means *"you don't actually really know whether you're doing it right or wrong"* [FG2 07/19]. She later reflected that replicating lessons from a book is *"not the same"* as working side by side with a specialist mentor because *"you need that reassurance"* [FG3 12/19]. These comments demonstrate the lack of autonomy she previously had in the music classroom because of her limited experiences, a situation that later changed when she said she felt *"a lot more confident in doing my own thing"* [FG3 12/19]. Anna talked about the *"ripple"* effect of increased confidence, explaining that *"if you're feeling confident it seems to go better…it's not giving up"* [FG3 12/19].

5.1.3 Phase 4

By phase 4 [Int2 01/20] Anna said she now felt *"more confident in having a go"* and knew that *"if it doesn't work it doesn't matter"*. She recalled how she used to be "*frightened*" about teaching music and admitted how *"if I didn't have to do it I wouldn't"*. In stark contrast to this, she explained post-intervention that she was *"actually enjoying"* teaching music now and felt *"a little bit more open to being able to develop"* than she had done previously. Whilst reflecting on the nature of mentor-led support, Anna also spoke about the importance of critical reflection with other participants, feeling:

> *"supported with what I was doing [and] able to bounce ideas off people…it was quite exciting and it sort of just struck something".*

Anna said she felt more able to *"teach the curriculum through music"* now, outlining that her English plan involved "*a story map but we're composing our own music to go with it"* and how music helps *"things like your counting and reading as well"*. When asked to discuss her thoughts about music as a discrete curriculum subject, she said *"I'll be honest I've not really thought much about that"*.

5.1.4 Anna's learning journey

Anna's limited and negative experiences of music education and training within secondary school and her ITT appear to have hindered the development of her subject knowledge and musicianship. Anna was acutely aware of the impact these gaps had on her classroom musicianship and it appeared to trouble her,

recognizing that they were likely to be hindering the musical progress of her pupils. This triggered low levels of self-efficacy for teaching music.

Anna's music teaching became gradually more informed by her deeper subject knowledge, specifically her understanding of the musical elements. Once she was familiar with the terms 'pulse', 'rhythm', 'pitch' and 'melody' she used these in her playing and teaching, at first directly copying how the mentor did this (cycle 1). She then began to perceptively analyse the musical responses and actions of her pupils, identifying the musical elements in their playing (cycle 2). Anna's improved subject matter knowledge and classroom musicianship in this area then seemed to unlock aspects of PCK that informed her planning, teaching and assessment (cycle 3). The way she generated her own chants to embed pupil understanding of the musical elements and planned an entire lesson around songwriting served as clear examples of her growing SEND music pedagogy as an autonomous teacher. Once Anna had developed some basic strategies to stay in control of drumming, mirroring those modelled by the mentor (cycle 1), she was ready to develop her classroom musicianship skills for leading larger drumming groups (cycle 2). She counted pupils in, conducted confidently using a range of non-verbal cues and gave simple but direct instructions. This then gave Anna the confidence to trial an activity she remembered from her own school music education (see Figure 5.2); performing a 'round'. She had ideas about how to teach this concept to pupils, a clear indicator of her growing SEND music PCK. Her enthusiasm for planning a class Samba performance not only suggested she had ownership of her practice but also provided clear evidence that she was prepared to take risks as a result of her increasing confidence (cycle 3).

Despite clearly valuing music within her own primary education, Anna had concluded pre-intervention that music was an informal subject and not significant enough to be a subject area in its own right. Despite being able to identify musicianship skills amongst her pupils and being far better placed to develop this further post-intervention, Anna still talked about music's role in supporting the delivery of other curriculum subjects. This finding was unexpected and potentially indicated the long-lasting impact that Anna's early experiences had on her professional belief systems.

5.2 Ellie

Ellie had 3 years of teaching experience as a GTMS and GTSS. Ellie taught an Early Years (EY) class with pupils identified as having SLD and autism.

5.2.1 Phase 2

Early on, Ellie's river [Riv 02/19 – see Figure 5.4] is wide at certain points (indicating intense musical periods) until her later primary school years, at which point it narrows (indicating less active musical periods). It is particularly noticeable how her river remains this way, depicting a fairly uneventful journey with music:

Figure 5.4

Ellie's pre-intervention River of Music Learning Experience

Starts primary school

Has class-based music lessons & learns recorder in class (KS1) - *"I vaguely remember all of us using recorder in class…and playing hot cross buns"*

Takes up flute lessons *"because my friends were taking flute lessons"*

Enjoys aspects of instrumental tuition - *"I remember you know being involved in erm a lot of rhythm based lessons 'Frog and tadpole' and the visuals with those and enjoyed that"*

Does not recall music in her later primary school years - *"I don't remember class-based music lessons as part of KS2"*

Starts secondary school

Music lessons are not memorable - *"I can't remember any significant events from any of those lessons"*

Studies for undergraduate degree of childhood studies (no music content)

Studies for primary PGCE but music is not a focus - *"we didn't have a lot of university based time…it was literally a whistle stop tour to music in one lesson"*

Does not get the opportunity to observe music teaching on placement either - *"it was taught when the teacher was on PPA…an outside teacher would come in and teach music to the children"*

Receives some music training during NQT year in mainstream - *"we played the steal drums and it was so much fun… but that was just that one little snippet… it wasn't enough for me to work out how I was going to apply that in the classroom"*

Although Ellie did not identify many music education experiences at first (TL), she did later recall some primary school music memories when interviewed pre-intervention [Int1 02/19]. She remembered in secondary school how she *"just shied away from [music]"* and struggled to recall music lessons at this age. Ellie reported limited music training within her ITT and felt that music *"wasn't seen as one of the important subjects"*. She said she did not see much music teaching whilst on placement as other subjects took priority meaning she felt unable *"to develop my own way of doing things"*. She recalled a *"fantastic"* steel drum workshop during her Newly Qualified Teacher (NQT) year but did not report any further music CPD. This opportunity to participate in music, but not learn how to lead and teach music, culminated in Ellie feeling like she didn't *"really have a lot to go on"*. Ellie compared her music learning journey to that of her pupils, sharing feelings of self-deprecation and low self-esteem:

> *"I feel that they're just starting to learn music and instruments and it's the same as me…I've always been disappointed in myself…I feel embarrassed because I have a lack of knowledge and understanding".*

Ellie admitted that she lacked confidence with *"everything that's associated with music"*, a revealing insight into how her self-perceptions and self-evaluation of her own musicianship were fueling her low self-efficacy for teaching music. She felt, however, that changing this situation was *"achievable…I do want to understand how to deliver it"*.

Ellie talked about how she frequently used singing to accompany and structure her lessons because it *"just seems to engage the children"*. This comment suggests that Ellie did not view singing as a music learning activity through which pupils could develop musical skills and knowledge, but rather as a participatory activity and a useful teaching tool for classroom management. She did not talk about any experiences of teaching singing within curriculum music lessons. She also wanted to learn a wider range of songs so that she could lead classroom singing herself rather than continuing to *"resort"* to playing songs using the whiteboard. Ellie reported extremely limited classroom instrumental skills, placing her firmly within the *concrete experience* phase by explaining:

> *"I need to know what I'm doing with that instrument before I even begin to teach children how to play that instrument"*.

The key lines of enquiry to be tracked further were Ellie's:

- experiences of classroom singing and vocal musicianship skills, in order to facilitate musical learning through singing, select and lead with suitable vocal repertoire;

- skills to plan for and lead classroom instrumental work, including her PCK of how to teach with instruments;

- feelings of self-deprecation and self-blame regarding her music teaching situation

5.2.2 Phase 3

Ellie's timeline of music learning experiences during the intervention phase is shown in Figure 5.5 below:

Figure 5.5   Ellie's timeline of music learning experiences

Start of Intervention
February 2019

Training Session 1 [TS1 02/19]
See Figure 5.2

CYCLE 1 classroom mentor actions
Models how to engage a small group in a 'hello' song through seating plan & turn taking [L1, L2]
Names UPI & shows pupils how to hold & play UPI using hand over hand support [L1, L2]
Models 'goodbye' song & incorporates plenary work [L1, L2, L3]
Uses 'back in the box' song to tidy up UPI [L1, L2, L3]
Models how to manage pupil exploration of instruments – selects appropriate UPI, gives only two choices & uses minimal language [L1, L2, L3]
Makes use of 'ready steady go/stop' chant to bring instrumental playing to a controlled stop & waits for silence [L1, L2, L3]
Shows pupils the sounds different UPI make [L1, L3]
Models musical concepts through chant/song [L1, L2, L4] & instrumental work [L3]

Leads 'hello everyone' song [CO1 L3, L5]

Names UPI & provides support so pupils can explore sounds of a range of UPI [CO1 L2, L3, L5]

Uses 'ready steady go' chant to rehearse stopping skills when pupils playing UPI & 'back in the box' song to prompt pupils to tidy instruments away calmly [CO1 L5]

Training Session 2 [TS2 05/19]
See Figure 5.2

CYCLE 2 classroom mentor actions
Models how to engage a small group in a 'hello' song through use of mutli-sensory resource (lycra loop) & visual support systems [L1, L2]
Models how to lead a musical sensory story, including exploring vocal & instrumental sounds effects, musical concepts such as pulse & tempo through the story, singing key lines, copying rhythms [L1, L2]
Models 'goodbye' song & incorporates plenary work [L1, L2]
Plays 'wheels on the bus' on xylophone & marks notes for pupil using coloured labels [L2]
Makes use of 'ready steady go/stop' chant to bring instrumental playing to a controlled stop after it has got out of control [L3]
Shows pupils how to hold & play instruments [L4]

Finds starting note when leading classroom songs, meaning they are sung within an appropriate pitch range for pupils [CO2 L1, L2, L3]

Names UPI & provides support so pupils can explore sounds of a wider range of UPI [CO2 L1, L3, L4, L5]

Leads a musical sensory story, incorporating vocal sound effects and rhythmic chants [CO2 L2, L3, L4, L5]

Leads 'it's music time' welcome song & goodbye song, using chime bar to find starting note [CO2 L5]

Training Session 3 [TS3 10/19]
See Figure 5.2

CYCLE 3 classroom mentor actions
Introduces a song called 'pass the bag around' as a means of handing instruments out and encouraging exploration [L1]
Introduces pupil names into chorus of song as a means of engaging them [L1, L3, L4]
Models how to engage a small group in a 'goodbye' song through use of mutli-sensory resources (scarves & lycra) [L1, L3]
Introduces concept of a 'solo' & models how to incorporate opportunities for pupil solos within group music making [L3, L4]
Improvises short song as commentary for what pupils are doing at the time, e.g. *"hello xxx how are you, can you play the claves?"* [L4]

Leads 'pass the bag around' song [CO3 L2, L4, L5]

Names instruments when pupils choose them [CO3 L2, L5]

Mirrors pupil playing & allows pupil to take lead [CO3 L2, L3, L4, L5], including requesting 'more' music [CO3 L3, L4, L5]

Identifies correct beater to use to play singing bowl [CO3 L3]

Gives pupils time to respond to her vocal initiation within songs [CO3 L3], built in opportunities for solo work [CO3 L4] and cued pupils into songs [CO3 L5]

Improvises short song of 'what's in the bag' whilst pupil is choosing an instrument from the bag [CO3 L5]

End of Intervention
December 2019

At the beginning of the intervention phase, Ellie's hesitancy to sing along as the mentor modelled new songs [CO1 L1, L2] meant that her vocal musicianship was assessed as being within the *concrete experience* phase. She soon led a '*hello*' song, positioning herself at the front of the class to do so, but sang slowly and repeatedly paused, looking at the mentor for guidance, meaning that pupils quickly become unsettled [CO1 L3]. She also needed assistance to find her starting note for other new songs, pitching these too low for pupils [CO1 L3, L4], examples of basic tonal skills that she lacked (see Table 2.2). Cycle 2 signaled a clearer change in Ellie's vocal musicianship, her practice moving into the *emerging application* phase. When leading familiar songs from cycle 1 such as the '*hello*' song, she sang within an appropriate pitch range and in tune, recalling the melody and lyrics without hesitation [CO2 L1, L2, L3]. Although Ellie was initially hesitant to join in with new songs modelled by the mentor [CO2 L1, L2], she later used a chime bar to find the correct starting note for these songs [CO2 L5].

By the middle of cycle 3, Ellie's vocal musicianship skills were assessed as being comfortably within the *active experimentation* phase. She had learnt five new classroom songs, later reflecting on her new-found confidence to use *"a range of songs"* [FG3 12/19] in class. Specifically, it was the way in which she adapted and used these songs as teaching activities suited to EY pupils with autism that evidenced how her improved vocal musicianship had prompted new aspects of SEND music PCK. Ellie gave them adequate time to join in with her singing and repeated key lines when they asked [CO3 L3]. She kept pupils focused by building in opportunities for solo singing within a group song [CO3 L4], providing verbal cues such as "*ready*" and "*everybody*" and non-verbal cues such as lifting the tambourine high above her head to signal to pupils when to start and stop singing [CO3 L5]. Importantly, Ellie also recognized when her leadership of these songs had been ineffective. For example, Ellie realized that poor preparation of resources triggered dysregulated behaviours from pupils (see Section 2.3.3), even though she sang a new song called '*pass the bag around'* confidently [CO3 L2, CM3 22.10.19]. She ensured this issue was addressed when she attempted the activity again, resulting in more focused learning [CO3 L4, L5].   Independent of the mentor, Ellie later improvised her own, simple song called '*what's in the bag?*' [CO3 L5], confirmation of her improved musicianship skills based on the model proposed for GTSS (see Table 2.2).

It took Ellie time to build her confidence to lead classroom instrumental work, feeling she still had *"a long way to go"* [FG1 04/19] at one point. Her instrumental musicianship was assessed as being within the *concrete experience* phase pre-intervention based on her limited experience with instruments (see Section 5.2.1). The mentor therefore modelled basic skills at first such as naming and holding UPI correctly (see Figure 5.5). Ellie then quickly moved into the *emerging application* phase, naming and playing UPI for pupils including the woodblock, tambourine and maracas [CO1 L2, L3], providing hand over hand support for pupils to play these. She soon extended this to boomwhackers [CO1 L5], egg shakers, maracas, the guiro frog and claves [CO2 L1, L3, L4, L5], a change in her classroom musicianship that she knew was significant [CM2 10.06.19, CM3 05.11.19]. Once she could name and confidently handle these instruments, Ellie's instrumental musicianship developed further within the *emerging application* phase. She used chants she had seen the mentor use to bring playing to a stop, requiring some prompts from the mentor at first [CO1 L4] but soon sitting confidently in front of pupils and waiting for complete silence before indicating they could start again [CO1 L5]. Initially, Ellie was observed tidying up instruments herself before the mentor prompted pupils to do this instead by singing the '*back in the box*' cue song [CO1 L3]. Later, Ellie used this cue song herself and commented that pupils were tidying up instruments independently [CO1 L5].

By the end of cycle 1, there were indications that Ellie's improving instrumental musicianship and basic command of instrumental work meant she was competent to respond to, and conduct perceptive observations of, pupils' musical interactions and interests. This provided further evidence of Ellie's practice remaining firmly within the *emerging application* phase. Ellie changed the speed of her chanting to match pupils' playing, also encouraging pupils to make choices between UPI and to independently explore the different sounds these made [CO1 L5]. Ellie acknowledged that she felt confident to identify UPI that individual pupils would engage well with and tolerate [CM1 20.05.19], later reflecting on how she had:

> *"the patience to let them really explore these musical instruments in different ways…I kind of know a bit more about what I'm expecting the children to do with those instruments"* [FG2 07/19].

Ellie also suggested to the mentor that one pupil could learn to play his favourite song '*the wheels on the bus*' on the xylophone after noticing his ability to play melodies by ear [CO2 L1]. She later observed the same pupil tapping two boomwhackers in a slow, rhythmical pattern on the table and promptly started mirroring his playing with her own boomwhackers [CO3 L2]. The pupil noticed this and then said the word "*slow*" as he continued to play, which Ellie repeated to tell him he was correct. By the end of the intervention, Ellie's vision of *"drums flying across the wall"* was *"not even an issue"* [FG3 12/19], clearly indicating that her focus had moved away from behaviour to a situation in which she could begin to intervene and guide the pupils to develop as instrumentalists.

As a result of her developing musicianship and practice, Ellie felt she had *"a starting point now…[and a] bank of ideas"* [FG1 04/19] and *"like I know what I want them to do now"* [FG2 07/19]. She commented on how training *"just broke down a lot of barriers for me…being able to just give anything a go"* [FG3 12/19]. Ellie specifically valued teaching alongside the mentor, who helped her *"to take in so much more [with instruments] cos I'm like* 'oh she's holding that that way and she's doing that that way'*"* [FG3 12/19]. She said that mentor feedback was helpful so *"it's not just you thinking it"* and that the experience was *"relaxed [and] fun…it's not felt pressured you know if it didn't go to plan"* [FG3 12/19]. Pre-intervention, Ellie felt that her lack of classroom musicianship was a personal failure but during phase 3, she ceased to self-blame. Instead, she reflected on how her previous experiences *"were so little"* [FG1 04/19] and how she had *"been in schools where you'd have somebody external come in and teach music"* [FG2 07/19]. She remembered how music used to be *"a really scary time"* [FG3 12/19] but said she now enjoyed teaching it.

5.2.3 Phase 4

In her post-intervention interview [Int2 01/20], Ellie explained that she was now *"leading the group rather than relying on the [smart]board to do the teaching for me"* and was selecting the most appropriate *"version"* of songs. She expressed improved subject knowledge and confidence to use instruments in her teaching, reflecting on how previously *"there's instruments I wouldn't have even touched because I wouldn't have known what they do"* but how:

> *"today we were practicing playing the drum in different ways…I wouldn't have done that before…I play everything now a lot of claves I can now show children how to hold them what we do with them".*

Ellie commented to the mentor on how *"I observed what you do…I've been able to allow the children to do that and show them how we use [instruments]".*

Ellie explained how she now felt *"a lot more confident [and] able to plan structured lessons".* As in phase 3, Ellie commented on the positive impact of side-by-side mentoring:

> *"I stepped in more and more [and] I think that builds your confidence… it's ok if things don't happen as they are on paper [and] I think initially if you hadn't have been there I'd have probably beaten myself up about it".*

Although Ellie still felt *"a bit embarrassed about how bad it was and the lack of it"* when referring to her previous music teaching, she now accepted that *"if you've got nothing to draw from then you feel a bit lost with it".* This suggests she continued to see her previous weaknesses as less of a personal failure, a perspective that first arose during phase 3.

5.2.4 Ellie's learning journey

Ellie began her ITT with little musical identity or self-concept as a result of vague memories of her school music education. A lack of music training within her ITT reinforced this issue, leaving Ellie in no position to embrace the minimal training in music she received as an NQT and to develop identity as a teacher of music. These experiences led Ellie to compare her musicianship to that of the pupils in her class, indicating a distinctly low level of musical self-belief. She shared negative feelings about herself, indicating a sense of responsibility that she had failed to address her musicianship and music teaching. Post-intervention, Ellie seemed to appreciate how little she knew before, a point of developing consciousness that led Ellie to become less self-blaming about her situation as she processed her low confidence within the context of her distinctly limited music education experiences pre-intervention.

Ellie's learning during the intervention told a story of developing skills and confidence in vocal and instrumental musicianship that significantly impacted upon her SEND music pedagogy. She acquired a series of basic but essential vocal musicianship skills that included positioning herself confidently to lead singing, finding her starting note to sing within an appropriate pitch range for EY pupils,

singing in tune, and recalling a range of songs with accuracy and confidence (cycles 1 & 2). Ellie's ability to select and lead with appropriate vocal repertoire enabled her to adapt and create songs that worked effectively to engage her pupils in singing, rather than rely solely on the whiteboard (cycle 3). Ellie's instrumental musicianship and resulting PCK developed a little quicker than this. She learnt to name, hold and confidently play some basic UPIs, showing her pupils how to play these and controlling instrumental work using chants (cycle 1). From the latter stages of cycle 1, this meant Ellie could turn her focus away from developing her own instrumental musicianship to developing the musicianship of her pupils. She was able to identify pupils whose understanding and musical abilities were at a higher level than others and celebrated the skills they had by sharing plans of how to develop them further. It is inferred that Ellie had consequently developed higher expectations of her pupils in this way.

5.3 Gemma

Gemma had 4 years of teaching experience as a GTSS and was currently one of two music coordinators at the research school. Gemma taught an EY class with pupils identified as having SLD and autism.

5.3.1 Phase 2

Gemma's river [Riv 02/19 – see Figure 5.6] reveals periods of more intense musical activity (wider river course) at several points on her music learning journey, despite a significant disruption (indicated as a stream) on the way. The way in which her journey recovers from this, particularly as a professional, is notable:

Figure 5.6

Gemma's pre-intervention River of Music Learning Experience

Starts primary school

Remembers a particular teacher who "had a guitar [but] other than singing with her and going to the church to sing at celebration times I can't remember having much [curriculum] music"

Has individual tenor horn lessons and "I think I learnt a recorder…I still remember Hot Cross Buns"

Starts secondary school

Instrumental tuition stops but remembers weekly music lessons

Is told she can't carry on with curriculum music past year 8 – "we were quite a performance driven school so if you weren't attaining high enough in a subject you didn't get to do it past year 8"

Takes part in musical theatre at secondary school and has singing lessons

Trains as a primary school teacher; receives a small amount of music training within ITT – "I think it was two afternoons [that were] very much geared to mainstream"

Recalls useful music training whilst on placement at Mount View School that continued into her NQT year that "really did raise my confidence"

Works as a special school teacher in NQT year and to present day

Gemma had patchy memories of her primary school music education and then remembered feeling upset in secondary school when she was denied the opportunity to carry on with curriculum music past year 8, explaining when interviewed pre-intervention that *"I did enjoy it I obviously just wasn't one of the gifted ones"* [Int1 02/19]. She said this experience *"didn't totally put me off cos I carried on doing the school productions…I remember having singing lessons [and] going to the church to sing at celebration times"*. Gemma talked about her experiences at the research school as a trainee teacher and as a NQT, during which she had the opportunity to watch music lessons delivered by Penny[5], an experienced GTSS. That experience involved *"a lot of watching her and then trying to emulate it…and that really did raise my confidence"*. She reflected on how this practical training was vital because at university:

> *"there wasn't a big music focus…the things I use now are the things I saw Penny do".*

Despite these early positive encounters with training and mentoring, Gemma did not mention any further CPD in music.

Gemma said that her current music teaching wasn't challenging her pupils and joked that *"I have a child in my class at the moment who is more musical than I am"*, trivializing her own musicianship. She explained that she had an established structure within her current music teaching, but felt that her limited knowledge and experience meant that "*if it strays outside of what I've planned…I don't really know how to extend that"*.

Gemma had confidence in her own singing voice, explaining *"I'm not embarrassed about my voice I think it's quite nice I can hold a tune"*, suggesting she had some positive perceptions of her own musicianship. She shared her belief in singing being *"really really important"* because she felt *"it works"* with her pupils and explained how she used singing *"to close all my sessions and to do all my instructions"*, indicating her perception of singing being a participatory activity and useful teaching tool, rather than as a musical activity through which pupils could develop musical skills and knowledge. She did not talk about any experiences of teaching singing within curriculum music lessons. Gemma was therefore drawing

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[5] A pseudonym name was used by the researcher to conceal the identity of Gemma's colleague.

upon her perceived competence to sing as a general teaching strategy within her SEND pedagogy but perhaps did not yet have the confidence to do so in her music teaching, in a way that would develop the vocal musicianship of her pupils.

Gemma also outlined how she currently used music in general as a tool to deliver other areas of the curriculum, explaining how in musical interaction sessions *"we're not working on musical skills we're working on communication skills with song"* and how *"we don't do a maths lesson without music"*. Her comments suggest she viewed and planned for music as a tool to complement and support progress in other subjects; any musical learning took place will have been incidental and not planned for. Gemma did not talk about music being an essential subject within the curriculum for pupils with SEND.
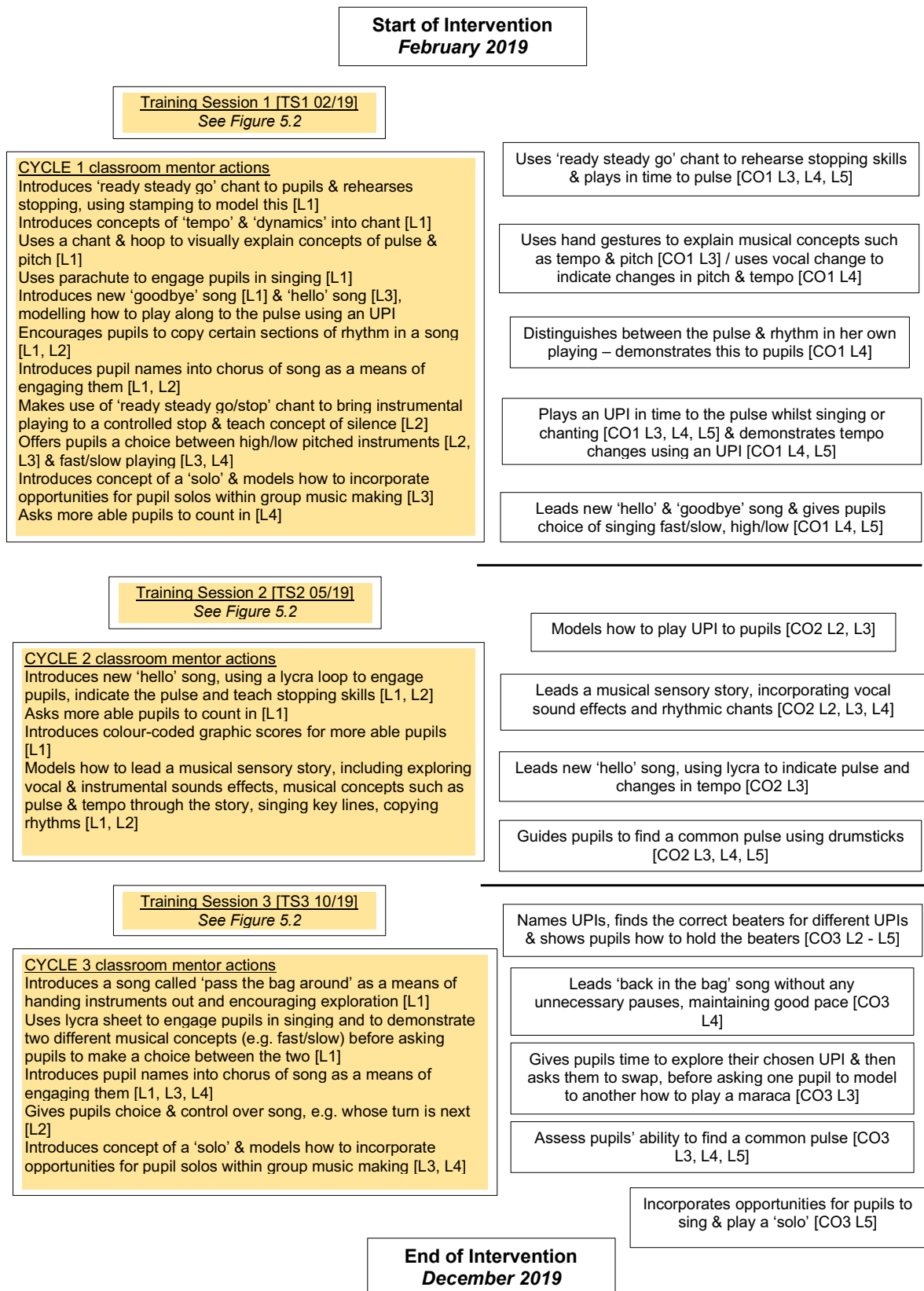
The key lines of enquiry to be tracked further were Gemma's:
- experiences of classroom singing and the skills to facilitate musical learning through singing;
- perceptions of music being a tool through which to teach other curriculum subjects.

5.3.2 Phase 3

Gemma's timeline of music learning experiences during the intervention phase is shown in Figure 5.7 below:

Figure 5.7   Gemma's timeline of music learning experiences

Start of Intervention
February 2019

Training Session 1 [TS1 02/19]
See Figure 5.2

CYCLE 1 classroom mentor actions
Introduces 'ready steady go' chant to pupils & rehearses stopping, using stamping to model this [L1]
Introduces concepts of 'tempo' & 'dynamics' into chant [L1]
Uses a chant & hoop to visually explain concepts of pulse & pitch [L1]
Uses parachute to engage pupils in singing [L1]
Introduces new 'goodbye' song [L1] & 'hello' song [L3], modelling how to play along to the pulse using an UPI
Encourages pupils to copy certain sections of rhythm in a song [L1, L2]
Introduces pupil names into chorus of song as a means of engaging them [L1, L2]
Makes use of 'ready steady go/stop' chant to bring instrumental playing to a controlled stop & teach concept of silence [L2]
Offers pupils a choice between high/low pitched instruments [L2, L3] & fast/slow playing [L3, L4]
Introduces concept of a 'solo' & models how to incorporate opportunities for pupil solos within group music making [L3]
Asks more able pupils to count in [L4]

Uses 'ready steady go' chant to rehearse stopping skills & plays in time to pulse [CO1 L3, L4, L5]

Uses hand gestures to explain musical concepts such as tempo & pitch [CO1 L3] / uses vocal change to indicate changes in pitch & tempo [CO1 L4]

Distinguishes between the pulse & rhythm in her own playing – demonstrates this to pupils [CO1 L4]

Plays an UPI in time to the pulse whilst singing or chanting [CO1 L3, L4, L5] & demonstrates tempo changes using an UPI [CO1 L4, L5]

Leads new 'hello' & 'goodbye' song & gives pupils choice of singing fast/slow, high/low [CO1 L4, L5]

Training Session 2 [TS2 05/19]
See Figure 5.2

CYCLE 2 classroom mentor actions
Introduces new 'hello' song, using a lycra loop to engage pupils, indicate the pulse and teach stopping skills [L1, L2]
Asks more able pupils to count in [L1]
Introduces colour-coded graphic scores for more able pupils [L1]
Models how to lead a musical sensory story, including exploring vocal & instrumental sounds effects, musical concepts such as pulse & tempo through the story, singing key lines, copying rhythms [L1, L2]

Models how to play UPI to pupils [CO2 L2, L3]

Leads a musical sensory story, incorporating vocal sound effects and rhythmic chants [CO2 L2, L3, L4]

Leads new 'hello' song, using lycra to indicate pulse and changes in tempo [CO2 L3]

Guides pupils to find a common pulse using drumsticks [CO2 L3, L4, L5]

Training Session 3 [TS3 10/19]
See Figure 5.2

CYCLE 3 classroom mentor actions
Introduces a song called 'pass the bag around' as a means of handing instruments out and encouraging exploration [L1]
Uses lycra sheet to engage pupils in singing and to demonstrate two different musical concepts (e.g. fast/slow) before asking pupils to make a choice between the two [L1]
Introduces pupil names into chorus of song as a means of engaging them [L1, L3, L4]
Gives pupils choice & control over song, e.g. whose turn is next [L2]
Introduces concept of a 'solo' & models how to incorporate opportunities for pupil solos within group music making [L3, L4]

Names UPIs, finds the correct beaters for different UPIs & shows pupils how to hold the beaters [CO3 L2 - L5]

Leads 'back in the bag' song without any unnecessary pauses, maintaining good pace [CO3 L4]

Gives pupils time to explore their chosen UPI & then asks them to swap, before asking one pupil to model to another how to play a maraca [CO3 L3]

Assess pupils' ability to find a common pulse [CO3 L3, L4, L5]

Incorporates opportunities for pupils to sing & play a 'solo' [CO3 L5]

End of Intervention
December 2019

Gemma's music subject knowledge was assessed as being within the *concrete experience* phase at the beginning of the intervention because it became apparent that although she was able to accurately clap the pulse whilst singing [TS1 02/19, CM1 04.03.19 & 11.03.19] she was unaware of this skill and could not identify it in her own performing. This information emerged unexpectedly from the data and so was not one of her original key lines of enquiry, but was significant enough to report on. Her limited understanding of the musical elements added to the evidence to support this assessment, asking:

> *"so the pulse is what you nod to at the disco and the rhythm is what you dance to?"* [TS1 02/19]

> *"does a rhythm not have to have pitch but a melody does?"* [TS2 05/19]

Gemma felt "*intimidated*" by the terminology of the musical elements [FG1 04/19] and was aware that her own lack of subject knowledge was likely to be hindering pupils in their development as musicians [TS1 02/19]. The mentor addressed this by repeatedly demonstrating the concepts of 'pulse' and 'rhythm' through a range of classroom chants and songs to build Gemma's confidence to sing and in order to move her focus towards developing pupils' musicianship in singing. The mentor later introduced the concepts of 'tempo' and 'pitch' using a combination of vocal and instrumental classroom activities (see Figure 5.7).

As Gemma's understanding of the musical elements developed, she began to recognize these in her own and her pupils' musicianship, her practice moving into the *emerging application* phase for this reason. She mirrored strategies from the mentor to incorporate and label the concepts of 'pulse', 'rhythm', 'tempo' and 'pitch' in her teaching [CO1 L2-L5]. She demonstrated the difference between the pulse and rhythm to pupils by keeping a steady pulse to a chant and then clapping a simple rhythm for them to copy back [CO1 L4], an important step forward in her classroom musicianship (see Table 2.2). She encouraged pupils to mirror her and noticed which of them had quickly grasped the concepts of pulse and rhythm in their own playing [CM1 18.03.19/01.04.19]. She was equally keen, however, to ensure that she was not mis-interpreting the subject knowledge of her non-verbal pupils, suggesting they had symbols so they could point out the difference between the pulse and rhythm [CM1 18.03.19]. Her comments not only indicate a change in Gemma's ability to aurally analyse the musical work of her pupils but also in her

SEND music PCK in terms of her ability to differentiate activities and make use of multi-modal communication in order to engage her more complex pupils. This provided the first indication that Gemma was moving into the *active experimentation* phase, an assessment that was then supported by evidence that she was using her improved musicianship skills to address further gaps in her subject knowledge. For instance, after teaching pupils about pitch using the terms 'high' and 'low', a pupil asked Gemma to sing the '*goodbye*' song higher. Gemma did, but struggled to transpose the song accurately to a higher pitch and sang the song out of tune [CO1 L4]. When this pupil asked again, Gemma had clearly thought about how to avoid this problem, using the chime bar to find her starting note and humming the melody through before singing the song [CO1 L5]. By drawing upon her improved tonal ability (see Table 2.2), Gemma was able to problem solve and persevere through this challenge. By the end of cycle 1, Gemma acknowledged a clear change in her subject knowledge [MT1].

In cycle 2, there was further evidence that Gemma's practice was consistently within the *active experimentation* phase. She fluently applied her understanding of the musical elements to specific classroom activities, including musical sensory stories. She used her voice to chant and make sound effects, improvising changes to tempo and pitch within existing chants and songs [CO2 L1, L2, L3]. She provided hand over hand support to help pupils find and keep a common pulse using drumsticks within a chant [CO2 L3, L4, L5], later prompting them within a different activity to see if they could find this using their feet without her guidance [CO3 L3, L4, L5]. Gemma's growing subject knowledge through her understanding of the musical elements, and her ability to demonstrate this in her own classroom musicianship, had informed her PCK when planning for, teaching and assessing in music:

> "*when we play with drums we're working on fast and slow…I'm not just teaching banging*" [FG1 04/19].

> "*before I had a bank of ideas and I knew what I was gonna do what kind of responses I wanted… but I feel like I know now why I'm trying to do that…what I'm actually teaching when I do that*" [FG1 04/19].

> "*I used to describe what we were doing but now [I say]* 'oh we're working on pulse'*"* [FG2 07/19].

Crucially, by the end of the intervention, this meant Gemma could aurally analyse and assess the sounds her pupils produced in class, recalling how one was "*keeping the beat all the way through…and then he was switching to the rhythm*" [FG3 12/19].

Gemma's vocal musicianship was assessed as being within the *emerging application* phase at the start of the intervention. Whilst she clearly began the intervention as a confident classroom singer [MT1], demonstrating her ability to start familiar songs with a strong starting note, sing loudly in tune and cue pupils in using eye contact [CO1 L1], the data revealed that she lacked pedagogy to lead singing in the SEND classroom. She struggled to keep her pupils engaged in singing and maintain control of singing activities long enough for pupils to show their potential and for her to therefore make accurate assessments of their musicianship. The mentor modelled the use of a parachute, lycra loop and lycra sheet (see Figure 5.7) to engage pupils in and keep them focused on singing, but also to help them physically feel the pulse in songs. Gemma replicated these strategies, using the lycra loop [CO2 L3, L4; CO3 L4, L5] and the lycra sheet [CO3 L4, L5] in these ways confidently when leading singing. Initially, Gemma also lacked fluency when bringing singing to a controlled stop, looking towards the mentor for support [CO1 L1, L2]. This prompted the mentor to model strategies that used minimal verbal language, such as the '*ready steady go/stop*' chant, in order to support pupil understanding of instructions and expectations [CO1 L4]. Gemma then replicated these in her own teaching, tentatively at first [CO1 L3, L4] but later with fluency [CO1 L5, CO2 L2, L4], indicating that her ability to lead singing had edged into the *active experimentation* phase. She was able to maintain control and pace between songs and activities, confidently bringing pupils to a stop. Later, the mentor extended this by introducing the idea of incorporating solos into group singing, modelling a new song called '*pass the bag around*' which required pupils to start and stop frequently to allow for solos [CO3 L1], a song that Gemma then led confidently [CO3 L2, L3, L4].

Throughout the course of the intervention, Gemma spoke about how mentor-led classroom support had been key and had helped her to see "*how you do*" [FG1 04/19] music with her pupils. After a difficult lesson, she commented how "*having you there made me keep going*" [FG1 04/19]. She explained that a lesson plan is

the *"perfect version"* of a lesson *"but it's been really good to see it go wrong for you with my class as well sometimes"* [FG3 12/19]. She began to see music as something accessible to her:

> *"I've not done a music degree I don't play an instrument…but that doesn't mean I can't do music"* [FG2 07/19].

Gemma said she had enjoyed the process because there was *"someone there to have fun with"* and remembered how teaching music previously didn't *"feel that fun"* [FG3 12/19]. Despite clear changes in her practice, Gemma's perception of music being a useful teaching tool was still present when she spoke about how *"the ideas that you've given [have] been able to thread through to other places"* [FG2 07/19] and how using music within story telling *"wouldn't have been a strategy I would have used before"* [FG3 12/19].

5.3.3 Phase 4

Post-intervention [Int2 01/20], Gemma said she was *"definitely more confident now"* and felt *"a lot better about teaching music"*. She reflected on how *"the children really enjoy it in class as well… they definitely didn't enjoy it erm when I wasn't feeling as good about it"*. Gemma recognised her improved understanding of the musical elements, knowing *"what these terms mean and what they look like for us…I don't feel like it's a foreign language happening around me as much"*. She still referenced music's role within the broader curriculum, saying *"we've started using songs for maths as well"*.

Gemma reflected on how *"this process has genuinely really helped"* because:

> *"you go to training and you see things and people tell you ideas but it's been nice seeing you do it with my class before I do it cos you're seeing it in practice then and how it works with the children you're teaching"*.

She commented on how *"it's been fun getting to team teach and just talk about music"* and valued the opportunity *"to spend a lot of quality time with someone very knowledgeable about a subject that isn't literacy or maths"*. She reflected on how daunting it previously felt teaching music because there were *"a lot of adult eyes on you"* owing to the high number of support staff in a special school classroom. Her comments suggest that such feelings of professional vulnerability

pre-intervention had lessened, with Gemma feeling confident to *"speak [to] and direct staff"* post-intervention, a crucial skill within general SEND pedagogy (Choudry, 2021).

5.3.4 Gemma's learning journey

Gemma began the intervention with a level of unconscious competence[6] regarding her musicianship, coupled with a limited understanding of the musical elements. She spoke flippantly about her musical potential, possibly indicating that being denied the opportunity to continue with her music education at secondary school, despite her interest in the subject, had negatively shaped her self-perceptions of her own musical worth to the present day. This was an unexpected but interesting finding. Classroom-based mentoring in music from an experienced GTSS early in her career had given Gemma strategies and ideas to use when teaching music, but this had taken place over four years prior to the intervention, with a different class. Although Gemma was still drawing upon this experience in her pre-intervention music teaching, she was struggling to adapt her approach to suit the needs of her current class because more recent CPD had not replaced this previous training that now had limited relevance.

Training Gemma to understand the terms 'pulse', 'rhythm', 'tempo' and 'pitch', and to recognise these in her own playing (cycle 1), was significant to her developing PCK (cycles 1-3). Again, this was an unexpected but significant finding. Whilst Gemma did not explicitly say so, the fact that she had interpreted pupils' drumming as "*banging*" and had not sought support to address this pre-intervention highlights potential low expectations she had of herself as a teacher of music and of her pupils in terms of their musicianship. Her comments throughout the intervention demonstrate how her deeper subject knowledge came to inform her planning and teaching, meaning she was equipped to lead her pupils in the development of their vocal and instrumental musicianship. Musicianship training enabled her to intervene and guide her pupils in their learning of pulse, rhythm and tempo in particular, and to make perceptive observations and assessments of the music they produced.

Pre-intervention, Gemma had developed her own uses of music and singing in class that were not focused on developing pupils' musicianship, potentially as a

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[6] This term is drawn from the 'conscious competence' learning model, established as a model of professional skills training by Noel Burch at Gordon Training International in the 1970s

result of having such low levels of musical self-concept and little awareness of her own musicianship pre-intervention. She had also been unaware before that her confidence to sing in the classroom was perhaps masking her limited skills to lead singing in a productive way that enabled the focus to be on musicianship. Gemma developed some clear strategies that changed this through the intervention. It was unforeseen, therefore, that she would still place such importance on the role of music and singing within the broader curriculum post-intervention. It is possible that Gemma still lacked some self-belief in her own subject knowledge and classroom musicianship, and therefore in her ability to teach *in* music rather than just *through* music. It is tentatively suggested that such deeply embedded views provide further evidence of the long-term consequences of the rejection she experienced at school.
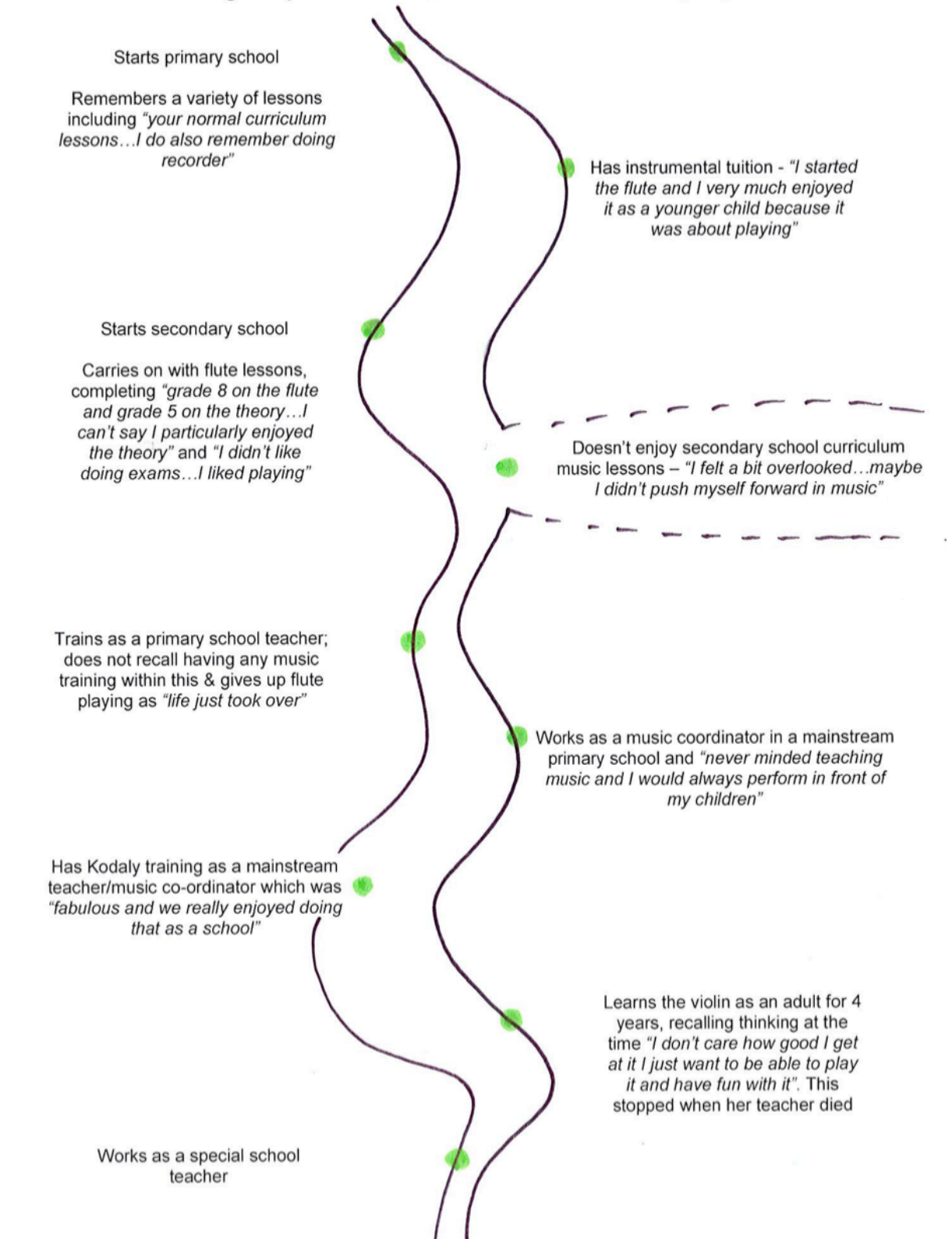
5.4 Imogen

Imogen had 15 years of teaching experience as a GTMS and GTSS. Unlike the other main-study participants, she had a high level of music training, having passed grade 8 flute and grade 5 theory as a child (see Figure 5.8). Despite this, she was still deemed an appropriate main-study participant because of her low confidence to teach music and to transfer her subject knowledge and musicianship skills into PCK appropriate to the needs of her pupils, as indicated in her phase 1 survey. Imogen taught a Key Stage 1 class with pupils identified as having Profound and Multiple Learning Difficulties (PMLD).

5.4.1 Phase 2

Imogen's river [Riv 02/19 – see Figure 5.8] reveals an active period of musical activity (wider river course), until a disruption at secondary school (stream). The way in which her music learning journey recovered from this and broadened once more was particularly noteworthy, mainly because of her professional experiences as a mainstream teacher. Her river ends at the present day, a time of less musical activity (narrow river course):

Figure 5.8

Imogen's pre-intervention River of Music Learning Experience

Starts primary school

Remembers a variety of lessons including *"your normal curriculum lessons…I do also remember doing recorder"*

Has instrumental tuition - *"I started the flute and I very much enjoyed it as a younger child because it was about playing"*

Starts secondary school

Carries on with flute lessons, completing *"grade 8 on the flute and grade 5 on the theory…I can't say I particularly enjoyed the theory"* and *"I didn't like doing exams…I liked playing"*

Doesn't enjoy secondary school curriculum music lessons – *"I felt a bit overlooked…maybe I didn't push myself forward in music"*

Trains as a primary school teacher; does not recall having any music training within this & gives up flute playing as *"life just took over"*

Works as a music coordinator in a mainstream primary school and *"never minded teaching music and I would always perform in front of my children"*

Has Kodaly training as a mainstream teacher/music co-ordinator which was *"fabulous and we really enjoyed doing that as a school"*

Learns the violin as an adult for 4 years, recalling thinking at the time *"I don't care how good I get at it I just want to be able to play it and have fun with it"*. This stopped when her teacher died

Works as a special school teacher

Imogen remembered both class-based and private instrumental tuition in primary school as positive experiences [TL], explaining in her pre-intervention interview that they "*triggered something that I became good at [and] a love of music*" [Int1 02/19]. Imogen remembered her secondary school music lessons, however, as "*not very exciting*" and felt "*overlooked*" by the music teacher, who said to Imogen "*I didn't know you were musical*". Imogen did not recall any music training within her ITT [TL].

Imogen generally reported a more positive relationship with music education once qualified as a teacher [TL]. She received "*fabulous*" Kodály[7] training as a GTMS [TL & Int1 02/19] that she described as "*so simple…as a music specialist you could teach it [and] as a non-specialist you could teach it*". In her role as a GTSS, she said singing motivates and engages pupils with PMLD. She referred to one pupil who was "*involved very little in school life [but] if you sing he will do something*". Imogen stated how she felt "*quite happy to get my Kodály box out or to put Jolly Music[8] on and to sing*" but wanted support to develop her vocal teaching and ideas further. Imogen's comments suggest that she valued singing as a participatory and easy to manage activity that served as a useful teaching tool, but did not know how to plan for classroom singing as an opportunity through which musical learning could take place for pupils with PMLD.

Despite feeling that music came "*naturally*" to her and her positive experiences of teaching music as a GTMS, Imogen felt that "*it can sometimes be hard to teach [music] to somebody else*". It is possible that Imogen was referring to the complexity of transferring her own music subject knowledge and skills, and experiences of teaching music, into SEND music PCK for PMLD pupils, because she had never been shown specifically how to do this. Imogen also wanted to use music to teach maths, a subject she found "*quite hard*" to teach, implying that music could help her to deliver other areas of the curriculum.

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[7] The Kodály approach is described as 'a sequential process, by which (a culture's folk) songs and active, authentic singing games are implemented to teach rhythm, melody, harmony, form, timbre, texture, and expression, in addition to the skills of singing, listening, moving, reading and writing notation, and the analysis of music' (Hanson, 2003, p. 7).

[8] Jolly Music is a curriculum music resource for children aged 4 and above. Teachers follow a book and use accompanying recordings to teach children about the musical elements and other aspects of the subject through physical action and movement (Jolly Learning, n.d.).

The key lines of enquiry to be tracked further were Imogen's:

- experiences of classroom singing and the skills to facilitate musical learning through singing;
- perceptions of music being a tool through which to teach other curriculum subjects.

5.4.2 Phase 3

Imogen's timeline of music learning experiences during the intervention phase is shown in Figure 5.9 below:

Figure 5.9   Imogen's timeline of music learning experiences

Start of Intervention
February 2019

Training Session 1 [TS1 02/19]
See Figure 5.2

CYCLE 1 classroom mentor actions
Introduces resonance board – models how to lead chants & incorporate concept of pulse [L1, L2]
Shows pupils what certain UPIs sound like, how to play them & offers them a choice between two [L1, L2]
Teaches concept of silence by lifting arms in the rest [L1] & by using a hoop as a prop [L2]
Introduces a song called 'pass the bag around' as a means of handing instruments out & encouraging exploration [L1]
Embraces pupil interest e.g. clapping, improvising a clapping game in order to keep him engaged [L2]
Introduces pupil names into a chant/song as a means of engaging them [L2]
Introduces concept of a 'solo' & models how to incorporate opportunities for pupil solos within group music making [L2]
Uses parachute to model tempo change – observe pupil response in order to gauge their musical preference [L3]

Notices how a pupil is responding to the pulse of a chant (tapping feet on resonance board) & replicates this for a less mobile pupil [CO1 L1]

Pats back of non-mobile pupil & provides hand over hand support to pupil so they can feel the pulse in a clapping game [CO1 L2] & so they can play an UPI in time to the pulse [CO1 L3, L4]

Taps the pulse on the resonance board using hands [C01 L2] & uses resonance board & hoop for teaching a chant/song [CO1 L3, L4, L5]

Plays UPIs to pupils so they can hear the sound & then interprets their vocal/gestural response as choice making [CO1 L3, L4, L5]

Claps pulse for certain pupil who is motivated by this action & uses parachute to model tempo change in a song, gauging pupil response/preference [CO1 L4, L5]

Notices when pupil pitch matches her singing [CO1 L5]

Prompts pupil to sing by just singing the first syllable of the line & waiting for pupil to respond [CO2 L2, L3]

Identifies accessible instruments for pupils to play e.g.wrist bells & provides hand over hand support so pupils can play UPIs & tuned chime bars [CO2 L1, L2, L3, L4]

Models singing in a call/response style, acknowledging vocalisations without words as a singing response [CO2 L2, L3, L5]

Training Session 2 [TS2 05/19]
See Figure 5.2

CYCLE 2 classroom mentor actions
Introduces new 'hello' song, using a multi-sensory resource (lycra loop) to indicate the pulse [L1, L2]
Gives pupils choice & control over song using visual support systems, e.g. whose turn is next [L1]
Introduces microphone work as provides sensory feedback, imitating pupil sounds & singing in a call/response style [L1]
Introduces chime bars as accompaniment to 'goodbye' song, identifying correctly pitched chimes [L1, L2]
Identifies a more suitable pitch range for pupils' singing [L3]

Leads new 'hello' song, using lycra to indicate pulse and changes in tempo – gives pupils choice about whose turn is next, using visual support systems [CO2 L3, L4, L5]

Sings at a lower pitch for certain pupils who need this [CO2 L4, L5] & sings one note at a time for pupils to copy correctly [CO2 L5]

Training Session 3 [TS3 10/19]
See Figure 5.2

CYCLE 3 classroom mentor actions
Introduces a song called 'pass the bag around' as a means of handing instruments sensory resources [L1]
Uses scarves as a means of demonstrating pitch [L1]
Models how to lead a musical sensory story, including exploring vocal & instrumental sounds effects, musical concepts such as pulse & tempo through the story, singing key lines, copying rhythms [L1]
Suggests drawing upon specific sections of a musical sensory story that pupils responded well to last time [L3]

Acknowledges that pupils may explore & play instruments in their own way [CO3 L1, L2, L3]

Uses 'pass the bag around' song to initiate activity & uses scarves to indicate changes in pitch during a song [CO3 L2, L3, L4]

Encourages pupils to try different instruments [CO3 L2, L3]

Notices musical responses & imitates /improvises around these through song [CO3 L4]

End of Intervention
December 2019

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Despite her secure knowledge and understanding of the musical elements [TS1 02/19], Imogen was assessed as being within the *concrete experience* phase at the beginning of the intervention because she was unable to identify musicianship skills in her pupils' musical actions and was arguably even a little dismissive of their skills. This finding was unexpected and therefore not related to her key lines of enquiry, but significant. For example, she did not notice that a pupil was attempting to match her pitch during the '*hello*' song, instead interpreting his vocalisations as "*smiling*" [CO1 L1]. After prompting from the mentor, Imogen became more perceptive at identifying and interpreting her pupils' musical responses and actions as indicators of their musicianship. For instance, she noticed that another pupil was tapping his feet in time to the pulse on the resonance board and accurately commented that he had anticipated the end of a familiar song [CO1 L1]. Imogen then moved into the *emerging application* phase within her practice because, with less guidance from the mentor, she observed pupils': vocalisations after hearing the maraca as being a response to this musical stimuli and general vocalisations as singing [CO1 L3]; tapping on the head and stomach as tapping in time to the pulse [CO1 L4]; ability to pitch match two notes [CO1 L5]; shaking of the lycra loop as being in time to the pulse [CO2 L1]; tapping and scratching of the skin of the drum as intentionally exploring different sounds [CO2 L1]; vocalisations being a request for a turn during a song [CO2 L4]; ability to pitch match a range of notes [CO2 L5].

Following on from this change in her aural analysis of her pupils' musical interactions, Imogen facilitated opportunities for pupils to demonstrate their skills further that had not been modelled or suggested by the mentor. Her actions were assessed as being in the *active experimentation* phase because she was using more variety to engage pupils in music teaching and thereby demonstrating a better understanding of the music learning behaviours of pupils with PMLD. For example, she: sang a song slower for a pupil, pausing to see if he could sing the end of each line, which he did [CO2 L2, L3]; sang one note at a time when she wanted a pupil to pitch match her singing, giving him time to respond, which he did accurately [CO2 L5]; provided hand over hand support for another pupil so she could feel the pulse on the drum, commenting that "*she will get that soon*" [CO3 L1]. Similarly, rather than singing simply being a participatory activity as it was pre-intervention, Imogen made use of suitable resources and strategies to develop pupils' vocal musicianship. For example, she used resonance boards and other multi-sensory props and

activities in order to support pupils to experience and explore musical concepts such as pulse [CO1 L2, L3, L4, L5; CO2 L3, L4, L5], tempo [CO1 L4, L5; CO2 L3, L4, L5] and pitch [CO3 L2, L3, L4] when singing. She also responded to pupils' vocal interactions [CO2 L3, L4, L5; CO3 L4] using strategies based on intensive interaction.

Imogen admitted that she had previously found "*it hard to know what to do with [PMLD] children or what to expect…where's their starting point*" [FG1 04/19]. She acknowledged a significant change in how she interpreted her pupils' musicianship, noting skills that she'd "*not really picked up on before*" [FG1 04/19] and explained how:

> "*I used to think pupil I1 made sounds unintentionally…but now I think he's joining in and responding*" [TS2 05/19]

> "*everything's a struggle to get pupil I2 to do anything [so] it's nice to be able to say [music's] his thing*" [FG2 07/19]

> "*it never occurred to me that pupil I3 was singing*" [FG3 12/19]

The opportunity to engage in reflective discussion with the mentor about the progress of her pupils throughout the intervention [CM1 04.03.19, 11.03.19, 18.03.19, 01.04.19; CM2 24.06.19; CM3 07.10.19] appeared significant to Imogen's progress.

Although it was also not one of her key lines of enquiry, the degree to which Imogen's PCK for teaching with instruments developed was intriguing. Imogen explained that watching the mentor implement specific tools and strategies was key to this change in her practice because she "*wouldn't have known how*" [FG1 04/19] to use them otherwise, indicating that pre-intervention her PCK for teaching with instruments was assessed as being within the *concrete experience* phase. Within the first two cycles of intervention, Imogen moved into the *emerging application* phase because she: provided appropriate levels of physical support so pupils could access instrumental work [CO1 L3, L4; CO2 L1, L2, L3, L4]; developed strategies to engage pupils [CO1 L3, L4, L5]; identified suitable instruments that were accessible for them [CO2 L1, L2, L3, L4]. She recognized the skills she was developing and the positive impact these were having on her practice [MT2]. She felt "*more confident in how to use the instruments*" and felt it was useful "*seeing them used in that different*

way" [FG1 04/19], referring to how the mentor had made use of UPIs including maracas and the tambourine to demonstrate the pulse whilst singing songs. Interestingly, having new aspects of PCK for teaching with instruments seemed to trigger Imogen's thoughts of how to teach the foundations of composition to pupils with PMLD. She viewed it as something simple to teach, describing it as pupils "*doing their own thing rather than do it like this or play it when we say*" and being "*allowed to choose their own instrument and then perform it in their own way*" [FG3 12/19]. This was evident in her practice when she praised a pupil for blowing into the microphone rather than directly vocalizing, and supported another to pick, pluck and strum the strings of a mini harp [CO3 L1, L2]. Imogen also allowed pupils to choose their own instrument within a musical sensory story [CO3 L2, L3]. She later praised another pupil for vocalizing down a boomwhacker, acknowledging with support staff that this pupil was creatively exploring the instrument [CO3 L3]. She explained that she had "*not even thought about composition*" [FG2 07/19] in this way before, providing a clear example of how she struggled to relate her previous music teaching experiences and knowledge of the music curriculum to her role as a GTSS, and specifically to the challenge of teaching music to pupils with PMLD.

Imogen compared the nature of side by side mentoring from a SEND music specialist mentor to book-based resources she had used before which she felt were sometimes:

> "*just a sticking plaster…sometimes you just want someone to do it with you…actually seeing it with your children makes a difference*" [FG1 04/19].

Working with the mentor had given her the confidence to think it's ok "*if it goes off piste a bit*" [FG2 07/19] and to take more risks within her teaching. By the end of phase 3, Imogen felt teaching curriculum music was "*quite straightforward*" [FG3 12/19]. She felt the collaborative nature of the mentoring was valuable because:

> "*sometimes it's nice just to have another teacher in the room…to think they've got my back…I will lean on my [support] staff sometimes…but actually at the same time you've got to be the one who does know*" [FG3 12/19].

This comment highlights feelings of professional vulnerability and the reassurance the mentor provided.

5.4.3 Phase 4

Post-intervention [Int2 01/20], Imogen had new ideas of how to "*build*" on her teaching, recalling how during the intervention:

> "*we did a bit of high and low and we did a bit of fast and slow and we did a bit of rhythm work and a bit of instruments and I think that makes a better lesson…you showed me how to do a music lesson*".

She spoke again about the collaborative nature of the training and how this helped her to persevere, reflecting that when lessons didn't always go to plan "*it's just nice being with someone else…you just have a giggle about it and move on*". She felt more confident to make autonomous and spontaneous decisions and when needed, to "*just see where the children are going and go with that*", rather than adhering to a plan or using a resource that might not be working. Imogen's confidence had built to a point where she felt more confident to "*have a go*" and to actively approach the mentor to ask "*where do I go next*" if she needed further support. She explained how:

> "*I'd feel ok about the delivery of it and leading other people with the delivery of it cos that's the big thing…you've often got to show [support staff] what to do but if you don't know yourself that's hard*".

Imogen seemed to have higher musical expectations of her pupils, acknowledging how "*some children can really surprise you so it's worth just having a go at all of it*". She admitted that previously she had placed limitations on her pupils, assuming "*they'll not be able to do high and low they won't be able to do fast and slow*" but realized now that "*actually they can*". Imogen also explained how it had been useful to see how music fits into other lessons, commenting "*I would never have been able to think to do [story work] that way before*". She also felt that having a better understanding of early music development had recently supported her teaching of early maths, giving her a "*starting point*" with a subject she admitted she didn't enjoy teaching.

5.4.4 Imogen's learning Journey

Despite engaging with CPD in music during her time as a GTMS and recalling successful music teaching experiences as a result of this, Imogen's development as a teacher of music appeared to stop when she became a GTSS. Here, a lack of professional training and mentoring, specific to the SEND context,

had meant Imogen had been unable to adapt her subject knowledge, skills and PCK for teaching music she had acquired from her early experiences to her new role. She was instead replicating activities she used in mainstream that were not focused on what pupils with PMLD needed to develop as musicians and had developed views on classroom singing that were not focused on musicianship. She was also failing to identify and interpret actions from pupils in the music classroom as being indicative of their musicianship. She was instead, subconsciously, dismissing these as being non-musical or missing them completely.

Working side by side with the mentor, in the specific context of her classroom, meant Imogen became more perceptive at identifying and assessing the musicianship of her pupils (cycles 1 & 2). In particular, she noticed their understanding of pulse and pitch, and the musicality behind their vocalisations. Imogen mirrored how the mentor interacted musically with pupils in order to prompt musical responses they were capable of (cycles 2 & 3). This change in Imogen's practice was significant because it led her to have higher musical expectations of her pupils, an unexpected but welcome finding. Once Imogen had a grasp of what her pupils knew and could do in music, she drew upon aspects of PCK that the mentor had used to support them to develop their vocal and instrumental musicianship further. Her focus when teaching with singing had now turned to developing pupils' musicianship, rather than it being a passive or non-musical experience (cycles 1-3). Her improved competence to teach with instruments in developmentally appropriate ways for her pupils (cycles 1 & 2) unexpectedly triggered an understanding of how to make composition appropriate for them (cycle 3). Imogen's uncertainty about teaching composition echoes findings from research involving GTMS (Barret, Zhukov & Welch, 2019; Ebbeck, Yim & Lee, 2008; Thorn & Brasche, 2015) and from this study's survey of other GTSS in the research school (see Section 4.3).

Despite these positive changes in her practice, Imogen appeared to revert to her pre-intervention perception of music being a useful tool to deliver other curriculum subjects. Much like Anna and Gemma, this view remained fixed in Imogen's mind post-intervention. The way she linked this belief to core subjects is perhaps quite telling of the deeply-embedded perception Imogen had of the place of music in comparison to core subjects.

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5.5 Chapter Summary

There were areas of commonality between participants in terms of: gaps in their professional knowledge and practice that had significantly affected their belief systems and attitudes towards SEND music education pre-intervention (research question 1); their growing mastery and confidence to teach music mid-intervention, and specific factors within the training model that had prompted a growth in their levels of self-efficacy for teaching music (research question 2); their emerging professional identity as teachers of music, mid- and post-intervention (research question 3). Consistency within the study's findings was evident despite different music education and music teaching backgrounds of participants. Key findings are summarized below under the themes of experiences (Section 5.5.1), perceptions (Section 5.5.2) and feelings (Section 5.5.3), a structure that is replicated in the Discussion that follows.

5.5.1 Experiences
Two key areas emerged in relation to participants' experiences:

Early influences: all participants recalled problematic or minimal memories of their secondary school music education. This was followed by professional restrictions, including a lack of or no music training within their ITT, along with minimal music CPD as qualified teachers. Adverse music teaching experiences as GTMS reinforced issues regarding participants' music teaching competence and left them with minimal music pedagogy and skills to critically engage with this aspect of their practice. Evidence from their narratives and actions highlighted gaps in their:

- knowledge of the musical elements (Anna, Gemma)
- ability and confidence to lead classroom instrumental work (Anna, Ellie)
- understanding of how to develop pupils' musicianship through singing and the importance of doing so (Ellie, Gemma, Imogen)

These distinct gaps in participants' musicianship and music pedagogy were restricting their classroom practice and therefore the music education experiences of pupils. This situation highlighted the urgent need for a detailed metric of how GTSS could be trained to teach SEND music competently and confidently.

Becoming a teacher of SEND music: despite the significant obstacles these early influences presented, all participants engaged successfully with training and mentoring in SEND music in order to gain experience and develop fluency as teachers of music. The areas of subject knowledge and classroom musicianship that appeared most important for participants' developing SEND music PCK, and the timescales required to develop these, were their:

- understanding of the terms 'pulse', 'rhythm', 'pitch', 'melody' and 'tempo', including the ability to demonstrate and aurally discriminate between these concepts fluently in their own and their pupils' performing (Anna - *2 cycles, 12 weeks*)*,* / (Gemma – *1 cycle, 6 weeks*) / (Imogen – *less than 1 cycle*)

- instrumental musicianship skills, being able to: name and hold UPI correctly, and control instrumental activities convincingly (Ellie – *1 cycle, 6 weeks)*

- instrumental leadership skills, being able to: control playing using simple strategies and conduct larger groups (Anna – *2 cycles, 12 weeks)*

- vocal musicianship skills, being able to: find a starting note in order to sing within an appropriate pitch range for pupils, sing in tune, recall a range of songs competently and confidently, lead confidently from the front (Ellie – *2 cycles, 12 weeks)*

- vocal leadership skills, being able to control singing using simple strategies (Gemma – *1 cycle, 6 weeks)*

Participants' developing music subject knowledge and classroom musicianship skills typically followed what had been predicted within the GTSS musicianship model outlined (see Table 2.2). This model had been derived from the work of Kodály, Bremmer (2021), Ibbotson and See (2021), and Sounds of Intent (SoI) in the absence of any known SEND-specific research in this area. Participants' improved musical competency then directly impacted upon their emerging SEND music pedagogy in terms of how they planned for, taught and assessed music. This was most evident by the way they:

- made an aural analysis of the quality of musical actions, interactions and responses from pupils, discerning their musical intentions (all participants)

- created, adapted and led with their own teaching strategies, resources and/or activities that effectively developed pupils' understanding of the musical elements (Anna) and their vocal musicianship (Ellie, Gemma, Imogen)
- planned instrumental work that was accessible and engaging for pupils (Ellie, Imogen)

This provides a detailed picture of SEND music pedagogy that generally mirrors EY music pedagogy (Bremmer, 2021), providing clear evidence of the hypothesized links between the two (see Table 2.1). These findings therefore offer a significant and original contribution to professional knowledge and practice given the distinct lack of focus on GTSS training and SEND pedagogy within music education research.

Participants' levels of self-efficacy for teaching SEND music distinctly improved as a result of mentoring that was situated within their specific classroom contexts (Catalano, 2015; Choy, Chen & Bugarin, 2006; Cole, 2012; Lave & Wenger, 1991; McLellan, 1996). Drawing upon Wagoner's (2015) model as a comparison, findings highlight changes in participant practice that appear indicative of high levels of self-efficacy specific to GTSS and SEND music teaching. Certain aspects of the training model emerged as important sources of this developing self-efficacy, most notably vicarious experiences with and verbal persuasion from a SEND music specialist mentor (Bandura, 1997; de Vries, 2013). The expertise of the mentor was therefore crucial within the training and mentoring process.

5.5.2 Perceptions
Three key areas emerged in relation to participants' perceptions:

Music's value: participants' pre-intervention views of music (Anna, Imogen) and singing (Ellie, Gemma) as being useful tools for day-to-day learning and for teaching core subjects provided an insight into their perceptions of music's role within the formal curriculum for pupils with SEND. Participants held onto these beliefs as the intervention progressed. Possible reasons for this are presented and considered.

Limitations and low expectations: most participants reported a lack of self-belief in their own musicianship and low self-esteem for teaching music pre-intervention, and as a result of which had appeared to distance themselves from the responsibility of teaching music. These negative self-perceptions appeared to be triggered by gaps in their music subject knowledge and classroom musicianship, and by their negative early influences (see Section 5.5.1). Evidence of participants' low expectations of pupils' musicality emerged unexpectedly through the findings, present within participants' own words (Imogen) and inferred through their inaction in addressing what they knew to be significant weaknesses in their mastery of the subject and their practice (Anna, Ellie, Gemma).

Reframed capabilities and responsibilities: a clear shift in participants' thinking revealed the higher expectations they had of themselves post-intervention, a perspective that appeared to filter down into similarly elevated expectations they now had of their pupils. There was also a collective sense amongst participants post-intervention that because of these new expectations, they had a professional responsibility and accountability for teaching music moving forward. Viewed as increased levels of emotional arousal towards this aspect of their practice, these changed perceptions are discussed as outcomes of their increased self-efficacy (Carroll & Harris, 2022).

5.5.3 Feelings

Three key areas emerged in relation to participants' feelings:

Fear and failure: participants expressed anxieties about teaching music pre-intervention that were caused by their low levels of subject knowledge, limited classroom musicianship skills and poor musical self-concept. There was a clear sense within the data that participants felt they had already failed at music teaching and that they feared further failure. Participants' preoccupation with failure revealed a fixed mindset culture (Dweck, 2017) that appeared to be reinforcing powerful feelings of low self-efficacy for teaching music. Some clearly felt responsible for the lack of training they had received pre-intervention, despite the fact that it had not been offered to them.

Developing resilience: participants began to process their music teaching practice, including the challenges this naturally presented in the SEND context, in a way that was more reflective of the fact they were experienced SEND teachers. In the same way that a fear of failure dominated their feelings pre-intervention, an acceptance of failure as a normal and productive part of professional growth overtook their mindset post-intervention (Dweck, 2017), their growing resilience providing further evidence of their heightened self-efficacy.

Developing confidence: participants' feelings of confidence for teaching music spiraled up and down based on their experiences, and their perceived levels of musical competency. Despite reporting such low levels of confidence as musicians and as teachers of SEND music pre-intervention, participants encountered feelings of enjoyment towards this aspect of their practice post-intervention,

These findings and their implications are now drawn together in the following chapter, through which the key themes of experiences, perceptions and feelings structure discussion of the sub-themes identified above. Links and comparisons are made between the significance of each participant's findings as a means of answering the study's research questions.

6.0 Discussion

This chapter explores key themes drawn from areas of commonality between participant-specific findings (see Section 5.5), depicted visually as a coding tree in Figure 6.1 below. It discusses data reported in chapter 4 (survey) and chapter 5 (intervention study). Survey findings provided context to the study and crucially substantiated the rationale for the research, that Generalist Teachers in Special Schools (GTSS) at the research school lacked the competence and confidence to teach music (see Section 1.1). Investigating the music teaching practices and training needs of these teachers further was therefore confirmed to be an important area of work:

Figure 6.1   Coding tree

Early Influences

Music's Value

Limitations and low expectations

Fear and failure

THEME 1 Experiences

THEME 2 Perceptions

THEME 3 Feelings

Becoming a teacher of SEND music

Reframed capabilities and responsibilities

Developing resilience

Developing confidence
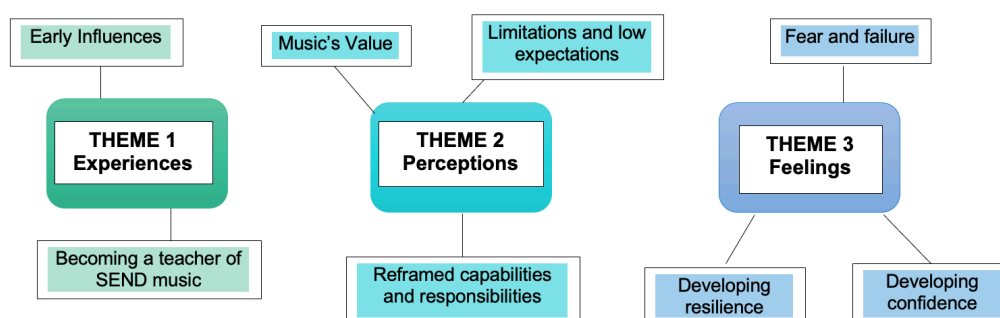
Learner-centred theory informed the design of the study and the analysis of its data (see Section 3.3.2). The identification of three key themes was largely directed by individual participants in the way they connected their experiences of music education to their perceptions of and feelings towards this aspect of their practice. Within these themes, identifying key milestones relating to the learning and progress of each individual participant was integral to the analysis of the main-study data, the study having been designed around the unique background of the participants. The research questions are answered within each of these three key areas of discussion, although the prominence that each theme has to each of these questions varies. Discussion of experiences demands a much larger proportion of the chapter, given it is the main theme that answers the second research question, which measures the impact of the intervention on participant practice. Documenting this change and the

detail of how this was achieved is the main aim of the thesis. A learner-centred approach was therefore central to the progress they made. The unique insights that individuals shared throughout the study were linked to their developing musicianship and how they were actively transferring that knowledge to impact upon the musical learning of their pupils. The significance of their learning journeys is now examined, the forthcoming Discussion framed around a position of learner-centred theory. Interpretations and possible implications of the study's findings are addressed, situating points of debate within current educational policy and practice.

6.1 Experiences

This section examines changes to participants' experiences of music education and training as they engaged with the intervention. It considers how a range of early influences that were generally less than positive for participants coloured how they later viewed their own musicianship as GTSS, impacting significantly upon their readiness to teach music and to identify as teachers of music in these settings (Section 6.1.1). Participants' lived experiences as they became teachers of Special Educational Needs and Disabilities (SEND) music are then discussed (Section 6.1.2). Areas of music subject knowledge and classroom musicianship skills that were most influential on participants' developing Pedagogical Content Knowledge (PCK) in SEND music are highlighted. The importance of domain specific, situated learning within the SEND music training and mentoring model is outlined so that a similar training model could feasibly be replicated in other special schools, with other GTSS. A summary section emphasises how the poor situations participants had been left in pre-intervention are potentially indicative of widespread issues within the education system regarding music's status in the curriculum (Section 6.1.3).

6.1.1 Early influences

Participants' experiences of curriculum music provision in secondary school corresponded to a sudden decline in their experiences of classroom music education. This justified the need for a practical, skills-based training model framed by experiential learning theory (Kolb, 1984/2014), that enabled participants to encounter musical learning like children do. This followed their typically positive primary school experiences and occurred despite their experiences of instrumental

tuition outside of the classroom at secondary school (see Figures 5.2, 5.6 & 5.8). They described their secondary school music education as being either insignificant (Anna, Ellie) or distinctly negative (Gemma, Imogen), mirroring findings from other research (see Henley, 2017; Lowe, Lummis & Morris, 2017; Pitts, 2012; Saunders & Welch, 2012; Welch & McPherson, 2012 for recent examples). Most reported a conflict between curriculum music and other music education experiences, positively recalling experiences of instrumental tuition (Gemma, Imogen) and school productions (Anna, Gemma), indicating that these other experiences had replaced formal learning in music (Daubney, 2017). As a result of this unexpected disruption to their school music education after primary school, participants were left with a knowledge and skills deficit in music that would later significantly impact upon their readiness to teach music. These findings were somewhat expected, based on informal conversations the researcher has had with a range of GTSS colleagues over a number of years. Despite this, it was still a shame to read about these negative school experiences and observe the impact they had on participants as musicians and teachers of music. Participants' gaps in basic areas of music subject knowledge and classroom musicianship were consistent with research involving Generalist Teachers in Mainstream Schools (GTMS - Dinham, 2007; Lowe, Lummis & Morris, 2017), these being below what would be expected from a primary school pupil in some cases. It is inferred that this situation left participants feeling like primary school music learners, triggering low levels of musical self-concept as a result of significant gaps based on those hypothesised as being crucial for GTTS based on a model outlined for the purposes of this research (see Table 2.2).

Limited time dedicated to music within Initial Teacher Training (ITT) meant that participants' knowledge and skill gaps in music caused by their poor school music education were not addressed. This was the case for all participants, despite some having trained over 20 years ago and others much more recently. Some participants could not recall any ITT in music (Anna, Imogen) whilst others described a lack of contact with music teaching on school placements (Ellie), meaning they lacked experiences of cognitive apprenticeship (Catalano, 2015) and mentoring from others within a professional community at a critical point in their professional development. A lack of ITT in music was echoed by other teachers at the research school (see Section 4.2) and within a vast amount of research that has examined the music training experiences of GTMS (see Ehrlin & Wallerstedt, 2014; Hennessy,

2017; Welch & Henley, 2014; Zeserson, Welch, Burn, Saunders & Himonides, 2014 for recent examples). For the main-study participants, this amounted to an immediate shortfall in their pedagogical knowledge and experience, meaning they began their teaching careers with no professional knowledge of how to teach music. Although these findings mirror those from larger-scale studies involving GTMS, they must be interpreted cautiously owing to the small sample size. Findings suggest that following their negative school experiences participants were not able to construct identity as musicians or as teachers of music through secondary socialization experiences (Woodford, 2002) within their ITT. There were indications within the data that this carried significant implications for participants' identity construction as generalist music educators (Kraay, 2013), in the way they talked about music teaching as something uncomfortable to them (Anna) and even completely alien to them (Ellie). Recent research suggests that GTMS are still leaving ITT with low levels of self-efficacy to teach music (Welch, 2021), a point of real concern if GTSS, who generally begin their careers as GTMS, are to deliver high-quality SEND music teaching as a result of training and experiences of music education beyond their own school experiences.

Professional restrictions experienced by participants as qualified GTMS and GTSS meant gaps in their musical literacy, their low levels of musical self-concept and their lack of identity as teachers of music went unchallenged. During their time as GTMS, music was not timetabled (Anna) and external specialists came in to teach music (Ellie), experiences mirrored in research with GTMS (Russell-Bowie, 2009). Most participants did not mention any Continuing Professional Development (CPD) in music as GTMS, leading the researcher to infer that they had not been offered any. Such indications of minimal or non-existent music CPD were corroborated by survey data from other teachers at the research school (see Section 4.2) and by other research (Daubney, Spruce & Annetts, 2019; Zeserson et al., 2014), suggesting this situation was not unique to the main-study participants. This is despite calls for training in music that would enable GTMS to develop practical skills and some mastery of the subject in order to build self-efficacy to teach music (Garvis, 2008) and to address gaps created by their limited music education in school (Dinham, 2007). Participants did not refer to having had any CPD in SEND music in their role as GTSS, despite the researcher's knowledge that they had taken part in short training sessions with one of the music coordinators pre-intervention. It

is not possible to say why they did not mention this but it is tentatively suggested that these isolated CPD sessions had little to no impact on participants' classroom practice because skills-based training was not contextualized or situated (Lave & Wenger, 1991; McLellan, 1996) within participants' specific SEND music teaching contexts (Catalano, 2015; Choy, Chen & Bugarin, 2006; Cole, 2012). Instead, participants spoke about using strategies from their time as GTMS, including prescriptive resources such as generic schemes of work (Anna), and about feeling restricted by or resorting to certain activities and resources from their time as GTMS (Ellie, Gemma, Imogen). GTMS report similar limitations in their practice (Barr, 2006; Battersby & Cave, 2014; Bott & Westrup, 2011; Holden & Button, 2006). The persistent failure to address the training needs of GTMS is relevant to this study because GTSS typically start their careers as GTMS, as most participants within this study did.

This study's findings inform the debate around the barriers generalist teachers face when teaching music because they highlight the consequences of limited training in music and the long-lasting impact these have on professional practice beyond the GTMS context. Although issues of competence and confidence for teaching music amongst GTMS as a result of problematic early influences are thoroughly examined within other research, a focus on the music education and training experiences of GTSS has, until now, been absent within the music education field.

6.1.2 Becoming a teacher of SEND music

Despite their significant pre-intervention obstacles, participants' early experiences did not serve as the last word on their musical development, proving that they were 'not fixed entities…with an innate ability to either do or not do music' (Henley, 2017, p.480). This section of discussion appraises the efficacy of the training and mentoring model implemented within this study, and the encouraging results this yielded, as evidenced through participant actions and narratives as they engaged with the intervention. Both the individual and collective practice of participants patterned the data. This highlighted specific factors within training and mentoring that appeared most critical to their development, with a detailed focus on participants' mastery of practical musicianship skills and how this translated into their

practice. This change triggered higher levels of self-efficacy, an outcome that mirrors key themes from research with GTMS (Garvis & Pendergast, 2010; Lowe, Lummis & Morris, 2017; Morris & Lummis, 2014). An overview of domain-specific behaviours (Bandura, 2006) that were indicative of self-efficacious music teaching practice amongst GTSS is also outlined and compared with models applied to the GTMS music teaching context (Wagoner, 2015). The notable absence of research related to the music training and teaching of GTSS, and SEND music pedagogy, indicates the significant contribution to professional knowledge and practice that the research offers, in the way that similar training could be replicated with other GTSS.

Participants demonstrated a level of unconscious incompetence pre-intervention in relation to aspects of their music subject knowledge, classroom musicianship and PCK in SEND music, an interesting finding that emerged as training began. This was particularly noticeable in relation to classroom singing. Participants were confident to sing in the classroom, this being either inferred through their experiences and comments (Anna) or directly stated by them (Gemma, Imogen). This trend was also observed amongst their colleagues in the research school (see Section 4.3), but interestingly conflicts with research involving GTMS (Bainger, 2010; Holden & Button, 2006; Rogers, Hallam, Creech & Preti, 2008). Despite their confidence to sing and a recognition that their leadership of classroom singing was limited, they were unaware of the extent of this and the impact that gaps in their vocal musicianship and classroom practice were having on the experiences of classroom singing for pupils. For example, Imogen wanted help to extend her ideas for classroom singing because she felt singing motivated her pupils (see Section 5.4.1). However, she was unaware that she was failing to attend to the vocal musicianship of her pupils because she was unable to identify musicianship within their singing, a much more pressing issue that emerged through the data and one that is discussed in more detail shortly. Similarly, Ellie perceived that one of her most significant shortcomings was her over-reliance on the whiteboard when singing, wanting to lead singing herself (see Section 5.2.1). Whilst this was certainly an issue in her practice, she was unaware of the gaps in her vocal musicianship that needed to be addressed in order for her to do this, including finding her starting note and pitching a song correctly for pupils, musicianship skills predicted to be crucial for GTSS (see Table 2.2).

Participants became more perceptive at realistically appraising their own vocal musicianship and other music teaching competencies through the intervention, as evidenced in the way their self-reported data from musicianship trackers, focus group discussions and interviews mirrored classroom practice observed by the researcher. This was an indicator of increasing self-efficacy (Wagoner, 2015) and reflects findings from other research (Durrant & Varvarigou, 2008). The evidence showed that focusing on the vocal musicianship and classroom singing of participants was an important aspect of training given their lack of awareness of critical gaps in their practice. It was encouraging to hear that participants greatly valued singing within the education of their pupils (Ellie, Gemma, Imogen), a trait they shared with GTMS (de Vries, 2015; Saetre, 2018). The mentor had to be alert, however, to the issues within their knowledge and leadership of classroom singing, as these could easily have been masked by feelings and values participants had communicated about this aspect of their practice.

Findings show a detailed, sequential metric of how participants' developing music subject knowledge and classroom musicianship skills informed their SEND music pedagogy. There appeared to be a general trend within the data that training participants to understand basic concepts such as pulse, rhythm and pitch was critical to the development of their instrumental and vocal musicianship. Figure 6.2 illustrates this in relation to their developing fluency with the musical elements:

Figure 6.2   Knowledge of the musical elements and application to SEND music teaching

1. Identify and keep a steady pulse through clapping and stamping
2. Clap a simple rhythm
3. Demonstrate the difference between pulse and rhythm through clapping, stamping and using UPI
4. Clap and play more complex rhythms using UPI
5. Discriminate between high and low sounds vocally, and change the pitch of songs to suit pupils when needed
6. Generate own strategies to help pupils keep a steady pulse e.g. simple chants with clear gestures and movements
7. Teach concepts related to the musical elements such as tempo and dynamics through movement, and using a range of specialist SEND teaching strategies and resources including hand over hand support, multi-sensory props and stories, resonance boards, intensive interaction etc.

In terms of participants' instrumental musicianship and leadership of instrumental work, Figure 6.3 illustrates their journey from music learner to music teacher:

Figure 6.3   Classroom instrumental skills and application to SEND music teaching

1. Name (a range of) classroom UPI, differentiating them from tuned instruments
2. Hold and play (a range of) classroom UPI, achieving a pleasing and resonant sound
3. Select classroom UPI that are suited to pupils' physical and/or sensory needs e.g. those that carry vibrations easily, so that pupils can physically engage with music appropriately and productively
4. Select classroom UPI that are suited to the activity or concept being taught, e.g. understanding which are best for clearly hearing the 'pulse'
5. Control individual or small group performing through the use of simple chants and songs e.g. tidy up/pack away songs, start/stop chants etc.
6. Change own musical interactions, through vocal or instrumental means, to mirror playing of pupils
7. Support pupils to explore the sounds of and play classroom UPI in their own way, using non-verbal support where needed (gestural, visual, physical), allowing them to make choices between UPI and create their own musical work
8. Conduct larger class groups using non-verbal (gestural, visual, physical) cues, counting them in using clear movement and/or props
9. Teach with more complex musical structures including call and response, and in a round.

Whilst participants were introduced to tuned classroom instruments in group training, the evidence indicates that it was not necessary for them to use tuned instruments to achieve significant changes in their PCK that meant pupils were being supported to develop as instrumentalists. Further training would be needed to embed their skills to use tuned instruments fluently in classrooms, if appropriate to their classroom context. Figure 6.4 maps out changes in participants' vocal musicianship and leadership of classroom singing, and the impact of this learning on their teaching of singing in the SEND context:

Figure 6.4   Classroom singing skills and application to SEND music teaching

1. Sing in tune
2. Find their starting note and sing within an appropriate pitch range
3. Recall the melody and lyrics to (a range of) simple songs
4. Lead classroom singing from the front with all required resources ready, using simple chants and non-verbal cues to keep pupils engaged, showing command of the activity
5. Sing at a pace that allows pupils to respond, pausing before and repeating key lines when needed
6. Explore voice and vocal sound effects, adapting songs to suit activity and pupil engagement when needed
7. Improvise a simple song, mirroring pupil vocalisations around these
8. Use strategies to keep pupils engaged and to keep singing fun, such as by building solos into group singing so that songs become turn-taking games.

There seems to be a general finding here that participants' music subject knowledge and classroom musicianship skills developed in a sequential manner, aligning with and adding further detail to music training studies with GTMS (see Himonides, Saunders, Papageorgi & Welch, 2011; Varvarigou, Creech & Hallam, 2012; Welch, 2021 for recent examples) and confirming the accuracy of a model developed for this research (see Table 2.2). Unlike this other research with GTMS, this study provides specific detail about when teachers' knowledge and skills are at an appropriate level of fluency to inform their PCK, and then specifically what this PCK looks and sounds like in the SEND context, enriching the disjointed debate around music pedagogy (see Section 2.4.2).

        Participants' SEND music pedagogy developed in line with models of EY music pedagogy (Bremmer, 2021; Ibbotson & See, 2021) and theories underpinning general SEND pedagogy (see Section 2.2), as had been anticipated for the purposes of this research (see Table 2.1). Three key pedagogical orientations underpinned participants' emerging SEND music pedagogy. Imitational learning, based on the notion that children learn by watching others without the need for verbal instruction, featured prominently across participant data. After modelling a new concept, activity or instrument to pupils, participants scaffolded opportunities for pupils to mirror their actions. This featured noticeably within Anna's and Gemma's data, particularly through their improved subject knowledge of and PCK for teaching with the musical elements. Experiential learning involves children experiencing and learning about

rhythm through whole body movements such as clapping and playing instruments. In the specific SEND context of this study, physical props including a parachute, lycra loop, lycra sheet, hoop and resonance board were used as a teaching tools to enable pupils to experience, learn about and keep a common pulse. This was illustrated clearly in both Gemma's and Imogen's teaching (see Sections 5.3.2 & 5.4.2). Being child-centred in their music teaching emerged as an important priority for participants, notably in the way they demonstrated their ability to engage pupils more effectively in music lessons, particularly instrumental activities (Ellie, Imogen). In Ellie's case, she was also happy to be led by her pupil's musical interests for the first time. Anna's and Ellie's developing vocal and instrumental classroom musicianship (see Sections 5.1.2 & 5.2.2) similarly illustrated the point well. They had replaced verbal instructions and cues with non-verbal cues, their gestures changing from instructional to representational to guiding (Bremmer, 2021). Whilst Bremmer (2021) dealt with the teaching and learning of rhythm skills specifically, the present findings indicate that these pedagogical strategies were evident within participants' instrumental and vocal teaching, as well as in the way they taught with and about the concepts of 'pulse' and 'rhythm'. Unlike Bremmer's (2021) study, the evidence suggested that the transition from instructional to guiding was a continuum that improved their SEND music teaching, in light of the fact that many pupils with SEND are not able to process verbal information easily without visual support systems (see Sections 2.3.1 & 2.3.2). Therefore, whilst many parallels can be drawn between EY and SEND music pedagogy, there were some differences that set the two apart.

Whilst participants needed to be walked through music as learners and then as teachers of SEND music in similar ways, progressing through sequential stages of development as depicted above (see Figures 6.2, 6.3 & 6.4), some did not move beyond a certain phase in their practice. This assessment was based on three phases of learning adapted from Kolb's (1984/2014) experiential learning model for the purposes of this study (see Section 5.0). For example, Anna demonstrated competency against all nine aspects of instrumental musicianship and leadership, whilst Ellie and Imogen only did so against seven of these, meaning they remained within the *emerging application* phase of practice. Whilst the most obvious explanation for this in Ellie's case is that her starting point with instruments was particularly low because she was unsure how to even hold UPI (see Sections 5.2.1 &

5.2.2), an alternative explanation for this is that Ellie's end point was at least partly shaped by her classroom context, a perspective that would also apply in Imogen's Profound and Multiple Learning Difficulties (PMLD) teaching context (see Section 2.3.2). For instance, the mentor supported Anna, who had an older class of pupils with Severe Learning Difficulties (SLD), to lead larger instrumental groups (cycle 2) before introducing the idea of call and response (cycle 3) because both Anna and her pupils were ready and able to work in this way. Alongside the challenge presented by her own lack of skills, Ellie's class of EY pupils with autism brought an added complexity to the classroom, in the way pupils struggled to sit and focus due to their sensory processing difficulties (see Section 2.3.3) and young age (Bremmer, 2021). Some were new to the school environment, having arrived at the research school from nurseries and so their only experience of instruments up until that point had been in free-flow play. By the end of the intervention Ellie's pupils were becoming increasingly comfortable in holding and exploring the sounds of UPI, a clear development in their engagement with music, but were not ready to work on more complex musical structures. Although other studies have similarly reported the need to address the basic instrumental musicianship skills of GTMS in EY classrooms (Bainger, 2010; Barrett, Zhukov & Welch, 2019), they report neither the approach to training nor the instrumental musicianship skills of teachers that were developed as a result of training. This study therefore potentially offers detail missing from other teacher training research in music, whilst providing some indication of the complexity of SEND music training due to the variety of classrooms and the broader teaching context that SEND music specialist mentors must be attentive to.

Participants grew to understand the meaning and significance of the musical elements, a significant change in their subject matter knowledge and aural musicianship that informed their planning, teaching and assessment. Importantly, this moved their practice beyond the beginner or *concrete experience* phase of learning into the *emerging application* phase. For Anna and Gemma, their initial lack of understanding of the musical elements meant they could not identify these in their pupils' and in their own performing. However, both grew to understand the meaning and significance of the terms 'pulse', 'rhythm', 'pitch', 'melody' and 'tempo' in particular, and could hear these terms in music. This was captured particularly well by Gemma's realisation that teaching with drums was not just about "*banging"* but

presented a clear opportunity to teach concepts such as tempo (see Section 5.3.2). In Anna's case, her improved knowledge and confidence in her own abilities meant she was able to intervene and guide the children to find a common pulse and copy rhythms (see Section 5.1.2). She supported pupils to improvise, compose and perform in both vocal and instrumental activities, and could assess the children's work, meaning she had a more informed understanding of their future learning so they continued to progress (Oftsed, 2019). Whilst it may have been reasonably predicted that such significant changes in practice might be the case with Anna and Gemma, given their particularly low levels of knowledge and confidence in this area pre-intervention, the data revealed that focusing on the musical elements as depicted by the GTSS musicianship model proposed for the purposes of this study (see Table 2.2) was an equally important of area of training for Imogen, whose starting point was arguably quite different to other participants.

Participants' increasing levels of fluency and confidence to teach with the musical elements triggered changes in the way they spoke about the musicianship of their pupils, appearing as an indicator of developing and deepening PCK in SEND music. Imogen's development in this area was particularly intriguing, because despite her subject knowledge pre-intervention (see Section 5.4.1), she was not able to recognize when her pupils were demonstrating their awareness of these terms in their own playing. This was an unexpected but significant finding that emerged through the data. Observing how the mentor worked with pupils and interpreted their musical responses through the intervention helped Imogen to identify musicianship within her pupils' musical actions and behaviours (see Section 5.4.2). This subsequently led Imogen to have higher expectations of her pupils in music, again, an important yet unforeseen finding that is revisited in other areas of discussion (see Section 6.2.3) because there had been no indication pre-intervention that she had low expectations of her pupils. It is not clear why Imogen struggled to identify and celebrate her pupils' musicianship in this way. It is possible that, even with her existing subject knowledge and prior experience of teaching music, Imogen found the task of working musically with pupils with PMLD particularly demanding. In the professional experience of the researcher, focusing on the musicianship of pupils with PMLD is difficult because of the extremely small steps of progress they make, some showing only a fleeting and basic response to music (see Section 2.3.2). Teachers need to be able to separate pupils' musical responses from other types of

interaction and unpack these in order to respond in a way that develops pupils' musicianship further, requiring situated, classroom mentoring from a SEND music specialist to do so. Another tentative explanation for Imogen's difficulty with this area of her practice is that she held deeper, potentially subconscious prejudices towards the musical potential of pupils with PMLD, a hypothesis raised earlier (see Section 1.1) and one that requires further discussion later (see Section 6.2.2).

Changes in participants' pedagogy as they moved into the *active experimentation* phase of learning were indicative of increased levels of self-efficacy for teaching SEND music. Some classroom behaviours as observed by the researcher concurred with those used to determine a model for measuring changes in self-efficacy amongst GTMS (Wagoner, 2015). For instance, participants' increased musical competency (as outlined within Figures 6.2, 6.3 & 6.4) positively influenced participants' self-perceived music teaching abilities and therefore the range of music learning opportunities they felt able to facilitate, a finding echoed in music training interventions with GTMS (Barr, 2006; Battersby & Cave, 2014; Buckner, 2008; Giles & Frego, 2004; Lummis, Morris & Paolino, 2014). This was perhaps best illustrated by the way in which all participants developed the way they taught with instruments, some having never done this (Ellie) or being scared to do this (Anna) pre-intervention. Also in line with Wagoner's (2015) model, participants were problem solving ways of teaching aspects of the music curriculum to pupils with complex barriers to learning in music (see Section 2.3), such as by supporting pupils with physical restrictions or who were under-stimulated by sound to physically feel the pulse using everday resources. Other observed classroom behaviours were not present within Wagoner's (2015) model but instead emerged as being highly specific to the SEND music context. They therefore enrich the field of teacher efficacy research, particularly knowledge around teacher behaviours that are specific to the domain (Bandura, 2006) of SEND music. Participants devised and trialled their own music teaching strategies to scaffold learning around the highly idiosyncratic needs of SEND pupils, in terms of meeting the needs of the class (SLD, PMLD and/or autism) and meeting the needs of individual children within the class. Participants had come to realise that relying on prescriptive schemes of work or limited resources that did not fit the music learning profile of pupils in their classrooms was problematic, mirroring positive outcomes of music training with GTMS (Hallam, Creech & Papageorgi, 2009; Lummis, Morris & Paolino, 2014; Varvarigou, Creech &

Hallam, 2012). Examples include Anna's decision to create her own chants to model the concept of 'pulse' to SLD pupils and her suggestion of how to translate this into a Samba performance (see Section 5.1.2), Ellie's efforts to improvise her own song for EY pupils with autism (see Section 5.2.2) and Imogen's emerging ideas of how to teach composition to pupils with PMLD (see Section 5.4.2). Participants' autonomy to teach music with their own strategies was also indicative of their higher levels of emotional arousal (Carroll & Harris, 2022), this being a positive outcome of improved self-efficacy that triggered a shift in participants' perceptions (see Section 6.2.3).

Certain aspects of learner-centred and situated training emerged as sources of this heightened self-efficacy and were therefore essential within participants' experiences of training. Vicarious experiences (Bandura, 1997) emerged as being the most significant source of self-efficacy development for participants, particularly with Ellie and Gemma. Participants observed and then directly mirrored the mentor, an example being how Ellie watched how the mentor physically held UPI and supported pupils to explore UPI, before doing exactly the same herself. Encounters of verbal persuasion (Bandura, 1997) surfaced as the next most significant source of self-efficacy development for all four participants. These primarily involved participants discussing practice with the mentor, but there was also reference to the positive influence participants had on each other within Anna's data. Anna and Ellie specifically commented upon mastery experiences in their music teaching, although unlike general models of teacher efficacy (Bandura, 1997) and research that has focused on GTMS self-efficacy for teaching music (Carroll & Harris, 2022; de Vries, 2013), mastery experiences did not feature as the most prominent or influential source of self-efficacy development from participants' own perspectives. Whilst the mentor observed many examples of mastery experiences within classroom observations – an example being Anna's confidence to lead pupils playing in a round (see Section 5.1.2) - participants themselves did not always recognize the significance of these experiences. It is possible that, given the added complexities music teaching presents to GTSS (see Section 2.3), participants attached more importance to and dependence on direct experiences with the SEND music specialist mentor, both practical and verbal.

Participants benefited from skills-based training that enabled them to physically experience musical concepts such as pulse and rhythm so that this training became embedded within their bodily based PCK (Bremmer, 2021).

Emphasis on the 'physicality, embodiment, or musculoskeletal component' (Fautley, 2018, p.1) of skills-based training in SEND music specifically was important because this is how pupils with SEND learn as musicians (see Section 2.3) and it was important for participants to experience music as the children do. Training initially needed to be heavily skills focused and trainer-led through short bursts of modelling and demonstration (see Figure 5.1). This was to address the most distinct gaps in participants' knowledge and skills, including defining and explaining the musical elements (Anna, Gemma) and exploring the most basic details and features of UPI (Ellie). Whilst participants had clearly voiced concerns about these specific areas of knowledge and classroom musicianship (see Sections 5.1.1, 5.2.1 & 5.3.1), it was still surprising to uncover the true extent of these gaps. Training then progressed to a point where participants were immersed in SEND music learning activities as a group including musical sensory stories (training session 2) and composition tasks (training session 3), being trained in ways they would teach the children (Ibbotson & See, 2021). The number of different ideas covered within training gradually decreased so that participants had time to experience and explore these SEND music teaching tasks with each other in detail, thinking through how to apply these to their specific classroom contexts. The resulting classroom actions of participants suggested that this job-embedded approach to SEND music training worked well for participants because they had the opportunity to test out their developing practice directly within their own familiar and comfortable classroom settings. For instance, Anna soon tried a call and response activity (see Section 5.1.2) and used visual cards in a composition task with pupils (see Figure 5.3), whilst Ellie and Gemma took inspiration from the musical sensory story task and adapted this for their own classroom contexts (see Figures 5.5 & 5.7). Whilst this group training was clearly important to the development of participants' practice, a finding mirrored with GTMS (de Vries, 2015), the way in which the mentor worked with individual participants in their own classrooms and the experience required of the mentor to do so featured prominently within the study's findings. This reiterated the importance of situated learning (Lave & Wenger, 1991; McLellan, 1996) that contextualized skills-based training for participants within their specific SEND music teaching contexts (Catalano, 2015; Choy, Chen & Bugarin, 2006; Cole, 2012).

It was important for the mentor to have credibility and empathy with participants based on the mentor's own SEND music teaching competencies. This

was so participants were mentored by an expert in the field who was able to support them to apply their skills-based training to their specific classroom contexts and develop pedagogy based on what they knew would work with their pupils. This corroborates findings from other studies that have highlighted the importance of an expert mentor within generalist teacher training (Catalano, 2015; Miller, Eather, Gray, Sproule, Williams, Gore & Lubans, 2017) and within the music training of GTMS (Conway, 2015; Conway & Hodgman, 2006). Key factors patterned the data with regards to how the mentor's expertise and actions specifically made the difference to practice, contributing to participants' strengthening self-efficacy as teachers of SEND music. These closely echoed findings from research that has focused on the musical self-efficacy of pupils in generalist mainstream classrooms (Davis, 2016), again reiterating the relevance of learner-centred strategies within their training, walking them through session by session how to teach SEND music. The classroom was an environment for collaboration and reflection, framed by situated learning approaches (McLellan, 1996). It was important for participants to talk through the mentor's thought processes and strategies directly with the mentor, the mentor's credibility increasing the potency of vicarious experiences and verbal persuasion (Bandura, 1997) within this professional dialogue. Participants spoke repeatedly about the significance of this throughout the intervention, corroborating findings with GTMS (Barrett, Zhukov & Welch, 2019; Biasutti, Hennessy & Vugt-Jansen, 2015). In Imogen's case, corridor memos proved particularly important so that she could talk through the small steps of progress her pupils with PMLD had made. Being able to verify what she had seen and heard in class from a source that she viewed as credible and expert had a significant impact on Imogen's developing awareness of her pupils' musicianship. Participants also watched how the mentor dealt with challenging lessons and activities that did not go to plan. They then realised that struggling but recovering from and persevering through these challenges was a sign of competence and not weakness within a 'community where everyone shares the learning agenda' (Weimar, 2013, p.15). This shift to a problem-solving culture that viewed error as part of learning is consistent with broader literature regarding the impact of teacher mentoring (Hargreaves & Fullan, 2012) and with the idea of growth mindsets (Dweck, 2017), a point revisited shortly in relation to participants' perceptions (see Section 6.3.2).

Drawing upon teaching strategies and approaches that were within participants' existing SEND pedagogy and therefore familiar to them had a significant impact upon their developing SEND music pedagogy. This confirmed the hypothesis that adopting a strengths-based approach to participants' skills-based training would be effective (Cooperrider, Whitney & Stavros, 2003). Multi-sensory props such as scarves and lycra loops were used by the mentor to help pupils experience and understand the concept of 'pulse', whilst the format of a multi-sensory story was used more generally to engage pupils in a range of activities. The mentor also promoted cross-curricular links between music and other subjects within training, an approach that was requested by some participants (Anna, Imogen) and helped others (Gemma, Imogen) understand how to make music accessible to their pupils. The mentor knew based on her professional experience that GTSS successfully and expertly adopt a cross-curricular approach to teaching in many curriculum subject areas, possibly due to the primary teacher training many of them have. This was therefore one approach to SEND teaching that participants were likely to be comfortable and familiar with. The mentor also wanted to remain participant-led because this was identified as a key aspect of the learner-centred approach to their skills-based training (see Section 2.5.7). The mentor therefore supported participants to link their planning of music to English through multi-sensory stories (Ellie, Gemma, Imogen) and story-telling (Anna), and maths through number songs and games (Imogen). Adopting a cross-curricular approach has also been effective in meeting the music training needs of GTMS (Bainger, 2010; Biasutti, Hennessy & Vugt-Jansen, 2015; Russell-Bowie, 2013; Welch & Henley, 2014) in the way it has encouraged teachers to positively engage with the challenge of music teaching (Henley, 2017) and, similar to this study, increased their confidence to teach music (Baldwin & Beauchamp, 2014). Participants' decisions to directly replicate these ideas within their own teaching were a key indicator of when their practice had moved into the *active experimentation* phase. These decisions were also a sign of increased self-efficacy that was highly specific to the SEND music context and therefore distinct from Wagoner's (2015) model, and perhaps of participants' reframed perceptions that teaching music was within their existing pedagogical toolkit and capabilities, a notion addressed in more detail shortly (see Section 6.2.3).

6.1.3 Summary of experiences

Experiences of music education and training mattered to participants. After their limited and typically negative school experiences they encountered a broken professional system of ITT and CPD which failed to address gaps in their subject knowledge and musicianship, and created new issues regarding their PCK. This situation was shared by their GTSS colleagues at the research school, as reported in the study's survey (see Sections 4.2 & 4.3). In some cases, participants' knowledge appeared no further developed than primary aged children by the time they entered the profession, having become products of their own 'arts-poor education system' (Bainger, 2010, p.18; Pitts, 2012) in the way the relationship they had with music education was still being shaped by their primary socialisation experiences from school. Being deprived of secondary socialization experiences through their ITT and CPD proved to be damaging for participants, given the complex range of skills, subject knowledge and PCK teaching music requires (Jeanneret, 1994; Wiggins, 2007). A lack of focus on music during their time as GTMS meant this problematic situation went unchallenged, in some cases, for years.

As GTSS, participants had accepted a best fit in their limited practice that did not meet the needs of learners with SEND. It is hard to believe that this situation would occur and remain unchallenged in core subjects (Wiggins & Wiggins, 2008), given the amount of training and monitoring these areas attract from school leaders and inspectors. Reports and initiatives that promote music education are welcomed (see Section 1.0), but the fact that reading remains a key area of primary school inspections (Oftsed, 2019) means that the teaching of English will remain a much higher priority in the training of generalist teachers than music and perhaps any foundation subject. This illustrates a disjunction between what the Government states about music education and what is actually possible in classrooms as a result of wider government-driven agendas (James, 2015). The situation participants found themselves in was seemingly indicative of music's status within the education system they had encountered as children themselves and that they were navigating as professionals, with no obvious change on the horizon.

Despite this rather bleak outlook, this study offers a low cost but high impact training model in SEND music that effectively generated a new set of music education experiences for participants, enabling them to block out and mitigate against their previous experiences. Whilst it is not possible to over-generalise

regarding the study's findings due to the small scale of the study, given the early experiences of participants mirrored those of other generalist teachers at the research school (see Section 4.2), and that the school is likely to be typical of other special schools (see Section 1.3.3), the researcher respectfully suggests that a similar approach could be used successfully with other GTSS in similar circumstances. It may therefore be successful in breaking a potentially sector-wide professional shortcoming, both nationally and internationally.

The sequential list of music subject knowledge and classroom musicianship skills that built PCK in SEND music within this training model forms an original and significant contribution to professional knowledge and practice. This proves the hypothesis that training GTSS as musicians would be essential if they were to teach as musicians, equipped with the subject knowledge, skills and SEND music pedagogy to develop pupils as musicians, regardless of pupils' significant barriers to learning. These findings, however, conflict with other work that has suggested teachers, as musical beings, can hear and respond to structures in music without training (Glover & Ward, 1993) and that teachers with higher starting levels of subject knowledge do not benefit from classroom musicianship training (Rogers et al., 2008). In the specific context of this study, training was important for all teachers because perhaps the biggest challenge GTSS face is knowing how to translate their skills and knowledge into PCK that is specific in meeting the music learning needs of pupils with SLD, PMLD and autism. This was particularly evident in the way pupils were demonstrating subject knowledge and musicianship that participants were not equipped to notice. However, this research gave participants the tools to recognize, quite simply, what was in front of them. Participants picked up that even those pupils with the most complex of needs have fundamental musicianship skills and were now able to celebrate these, supporting pupils to fulfill their potential. The way in which participants were not recognizing this before serves as another example of the impact that a curriculum that fails to focus on music has on the music education of pupils with SEND. Their progress in music was being impeded by Government agendas that prioritise core subjects that, given the considerable barriers to learning pupils face, must surely present significant obstacles and disengage pupils. With music being a subject they excel in, this research proposes that it is time for a re-think of the rationale behind the curriculum being delivered in special schools.

As a direct result of the training they received, participants' ability to critically engage with music as a subject within SEND curriculum and pedagogy was more level with other curriculum subjects. The absence of a professional learning community in SEND music pre-intervention meant participants had been unable to conceptualise what high-quality SEND music teaching looked and sounded like, and how this was best delivered within the specific contexts of their classrooms. Post-intervention, participants were able to engage professionally with SEND music teaching and with other teachers about this aspect of their practice, including the mentor as a specialist teacher of music. They had developed pedagogical orientations and strategies that were specific to the needs of pupils in their class. Collectively, these changes contributed to a newly established community of practice in music at the research school. The impact of this is likely to be evident within an extended professional community (Tammets, Pata & Laanpere, 2013) in the research school. Within this, participants will support sub-communities of SEND colleagues as they learn and grow collectively within this community of practice. In other words, participants are now in a position to model and share practice with others new to the sector or to their specific area of SEND music teaching, supporting them to develop the specialist SEND music pedagogy required to teach music to different groups of pupils with SEND. Whilst it is not being suggested that participants became music specialist teachers after engaging with training, being able to act as music role models to other GTSS in the future will be the ultimate test of their developing subject expertise.

6.2 Perceptions

This section of discussion compares participants' perceptions pre- and post-intervention. Participants' fixed perceptions regarding the value of music education within SEND curriculum provision are examined first (Section 6.2.1), before their belief systems regarding their own musicianship and that of their pupils are probed (Section 6.2.2). Whilst participants were seen to re-frame expectations they had for themselves and their pupils (Section 6.2.3), the fact that national agenda and policy is likely to have embedded misplaced perceptions that have directly affected the music education of pupils with SEND concludes this section of discussion (Section 6.2.4). Findings are situated against a limited amount of research literature in light of the few studies that have examined the perceptions GTMS have towards teaching

music and no known research on the same topic with GTSS. This study is possibly one of the first pieces of research to do so.

6.2.1 Music's value

Participants had developed the undesirable perception, pre-intervention, of curriculum music provision being distinct or removed from formal curriculum provision for pupils with SEND. Some spoke about their more general use of music to support day to day teaching (Ellie, Gemma), findings that are consistent with the literature involving GTMS (Biasutti, 2010). Evidence that participants felt more confident to use music within their general classroom practice than to teach it is a finding that is arguably not surprising in light of gaps they faced in their own musicianship, along with a lack of professional contact with and training to teach curriculum music. Others, however, shared more defined views on the value of music as a tool to support learning in core subjects within the SEND curriculum rather than teaching it as a discrete curriculum area (Anna, Imogen). It is plausible to suggest that participants perceived core subjects as being bigger priorities because they had trained and worked within an education system as GTMS in which it was standard practice to sideline formal music provision in favour of core subjects. This situation may have been indicative of 'direct or indirect pressure from policy decisions' (Hennessy, 2017, p.690), a point made by Imogen:

> *"maybe it comes from way above for example Oftsed or from the Government but maybe it's because [core subjects] are the things that are being checked they're the things that are monitored"* [Int1 02/19].

This potential narrowing of the curriculum has prevailed despite a range of national reports detailing the significant impact of music education (see Section 1.0) and initiatives present in schools for a number of years (Musical Futures, n.d.; Sing up, n.d.; Youth Music, n.d.). It is also possible that the value participants placed on music was reflective of their prejudices regarding the musicality of pupils with SEND (see Section 1.1).

Participants' views of music and its value within the core curriculum for pupils with SEND remained fixed post-intervention. Some even spoke specifically about having more ideas of how to use music to teach other subjects, including core subjects (Anna, Gemma), a similarly prevailing view being present post-training amongst GTMS (Hallam, Creech & Papageorgi, 2009; Varvarigou, Creech & Hallam,

2012). Such fixed beliefs were unexpected because it was speculated that being more perceptive in assessing pupils' musicianship (see Section 6.1.2) would lead participants to re-evaluate the value they placed on music as a core aspect of SEND curriculum provision. Linking music to other curriculum areas has been viewed as a positive indicator of creativity and confidence post-training with GTMS (Thorn & Brasche, 2020). However, participants' difficulty in parting from this perception was viewed less favourably in the context of this research given concerns of music being used as a tool to promote learning in core subject areas rather than teaching curriculum music in a way that developed the musicianship of pupils (see Section 1.1). It is not clear why these views remained so deeply embedded within participants' belief systems. The situation is potentially indicative of the lasting impact of years of learning and working within a system that does not value music. It is also possible that promoting cross-curricular links between music and other subjects within this study's SEND music training model could have contributed to the situation. However, this approach within training also yielded positive changes in participant practice because it promoted a strengths-based focus (see Section 6.1.2). It is therefore suggested that if a similar training model is replicated in other special schools mentors must simply be alert and competent enough to respond to these fixed perceptions regarding the value of music and should not shy away from designing training that promotes cross-curricular links with music in the SEND context.

6.2.2 Limitations and low expectations

Participants' early experiences appeared to directly colour how they viewed their own musicianship, approaching the intervention with distinctly low levels of self-belief and perceived limitations about this and therefore, their ability to teach music. Anna admitted that she didn't "*actually know what [she was] doing*" at times [Int1 02/19] whilst Ellie explained that she was "*just starting to learn music*" like her EY pupils were [Int1 02/19]. Gemma's take on her musicianship was a little different to this, appearing dismissive and flippant about it when she joked that some of her EY pupils were more musical than her (see Section 5.3.1). Participants' pre-intervention mindset was somewhat fixed (Dweck, 2017), heavily framed and influenced by perceptions of their past experiences (Fontaine, 1998), findings that are consistent with research involving GTMS (Hennessy, 2017; Stunell, 2010). Whilst such low

levels of self-efficacy for teaching music were somewhat anticipated within the data given participants' lack of education and training in music and significant gaps in their knowledge (see Section 5.5.1), it was a still a shame to hear how some had lost their previous feelings of positivity for and engagement in music as a subject (Anna, Gemma). This loss of enjoyment had most likely affected their confidence for teaching music in a negative way (Carroll & Harris, 2022; Ebbeck, Yim & Lee, 2008) and had instead allowed negative feelings to thrive (see Section 6.3.1). There are inferences within their comments that participants had accepted defeat as teachers of music and had distanced themselves from their musicianship.

Evidence of participants' low expectations of pupils' musicianship was an unexpected finding that emerged within the data. In Imogen's case, this was revealed explicitly within her post-intervention comments. She explained that being able to recognize and label her pupils' musical responses as musicianship had triggered a realisation that her expectations of their musicianship had been too low before (see Section 5.4.3). In the case of other participants, evidence of their low expectations was inferred through their passive response towards, and perhaps even lack of real concern about, their music teaching situation. Prior to the research study, participants had not actively sought out opportunities to address their practice and issues of confidence, despite being well aware there were issues, and even being concerned in some cases of the impact this had on pupils (Anna, Gemma). Gemma's inaction to understand or challenge when she thought she was "*just teaching banging*" with the drums before [FG1 04/19] encapsulates this well. Whilst other participants had obviously not sought training in SEND music in order to address their difficulties either, they at least appeared a little more alarmed by their situation, explaining that they felt there was more potential to develop the musicianship of pupils (Anna) and acknowledged the seriousness of their situation by feeling embarrassed (Ellie). Whilst it was clearly positive that participants chose to engage with the research project, the delay in addressing their practice is perhaps even indicative of a situation in which they had excluded teaching music from their professional identity (Hennessy, 2017) and professional responsibilities (Stunell, 2010), a perspective that may have been triggered and then embedded by limited interaction with music training and teaching as GTMS (Hennessy, 2017; Welch & Henley, 2014). They appeared to display low levels of emotional arousal (Carroll &

Harris, 2022), or ownership of this aspect of their practice, most likely as an outcome of having such a distinct lack of identity as musicians and as teachers of music.

6.2.3 Reframed capabilities and responsibilities

Being trained to teach SEND music as musicians enabled participants to reframe their self-perceived musical and music teaching competence because they had the tools to tackle this aspect of their practice convincingly. This change was evident within the data of all participants, confirming that it was possible to legitimize them as musicians (Stunell, 2010) who could teach music, regardless of how significant their gaps in knowledge and practice were before. This led participants to develop higher levels of emotional arousal post-intervention (Carroll & Harris, 2022) in the way they communicated an increased sense of accountability for and commitment to teaching music, perceptions that have been linked to heightened levels of self-efficacy within general teacher efficacy research (Ashton, 1985; Coladarci, 1992). Participants had developed ownership of their practice and were more open to developing this (Anna), with Ellie feeling able to *"give anything a go"* [FG3 12/19]. Others indicated that they had higher expectations of themselves post-intervention. Gemma explained "*I've not got a degree but that doesn't mean I can't do music"* [FG2 07/19] whilst Imogen admitted that she now felt music teaching was *"quite straightforward"* [FG3 12/19]. Taken together, it is tentatively suggested that these data suggest participants had higher expectations of themselves, knowing it would no longer suffice to excuse themselves from knowing how to teach SEND music owing to a lack of training. The manner in which participants felt able to initiate discussion with the mentor on the topic of SEND music pedagogy also featured prominently within the data. This indicated that they had developed the confidence to have professional dialogue with a music specialist in this area of their practice and therefore presumably viewed themselves as professional teachers of SEND music.

In much the same way that participants reframed their self-perceived musical capabilities and had higher expectations of themselves as teachers of SEND music post-intervention, the evidence indicated that they also developed higher musical expectations of their pupils. Imogen was well aware of her higher expectations post-intervention (see Section 5.4.3), this perhaps being her way of processing and acknowledging her inability before to notice musical potential

amongst her pupils. In other cases, participants did not talk about having higher expectations of pupils post-intervention, suggesting they may not have recognized this change in themselves. It is therefore derived from the data that, as a result of participants being able to identify those pupils whose musicianship was at a higher level and celebrate this, they had higher expectations of what these pupils could do. For instance, as a result of her own improved classroom musicianship, Ellie suggested one of her more able pupils could learn to play '*the wheels on the bus'* on the xylophone. Gemma's unravelling understanding of the musical elements and her increasing awareness of this change in her own and others' musicianship prompted her to consider how her more complex pupils might show their knowledge and understanding (see Section 5.3.2). This suggested she was keen to not be dismissive of their potential simply because they had more complex barriers to music making. Participants' higher expectations of pupils was another indicator of heightened self-efficacy, reflecting findings from general teacher efficacy research (Ashton, 1985; Bandura, 2015; Hoy, Tarter & Woolfolk Hoy, 2006) and the impact of music training with GTMS (Himonides et al., 2011, Welch, 2021). However, in the specific context of the present research, transforming participants' perceptions was imperative in light of the low expectations they had regarding pupils' musicality and a concern that these prejudices are a sign of social justice issues within the sector (see Section 1.1). SEND music training therefore has wider implications in the way it encourages GTSS to communicate and reinforce fair and informed expectations regarding what their pupils are musically capable of, that they hopefully will cascade within a community of practice. The researcher humbly suggests that this may positively change broader attitudes towards disability amongst GTSS and perhaps within music education more widely (Jellison & Taylor, 2007).

6.2.4 Summary of perceptions

Participants' perceptions about music's role within core SEND curriculum provision amounted to a de-valuing of music within the education of their pupils. This finding reveals that the importance participants assigned to music pre-intervention was misplaced, a situation potentially shared within the wider community of GTSS who similarly claim that they value music but with no interrogation within the limited literature of what this means (Welch, Ockelford, Zimmerman, Himonides & Wilde, 2016). Indications that participants actually had low expectations of their

pupils pre-intervention suggests that their readiness to discuss the value of music may well have been masking deeper prejudices they had about the musicianship and musical potential of their pupils (see Section 1.1).

Implications that participants had distanced themselves from their own musicianship and responsibilities for teaching music, along with their misperceptions regarding the value of music within the SEND context are again, a likely consequence of national policy and agenda (see Section 6.1.3). Whilst generalist teachers may have anxieties about teaching maths (Finlayson, 2014), they are not able to avoid teaching it and are responsible for high standards and pupil progress when doing so. This is as a result of 'constant political focus on accountability within the core subjects' (Garrett, 2019, p.221) in contrast to music which sits on 'on the periphery of a crowded curriculum' (Garrett, 2019, p.221). A general lack of or vague reference to SEND within key documents and policies, including the music national curriculum (DfE, 2013) and the more recent model music curriculum (DfE, 2021), arguably reinforces perceptions that music is not important to pupils with SEND. Wider national policy and agenda appears to be avoiding much reference to SEND music teaching, a situation likely caused by the lack of research on the topic and potentially a lack of commitment to this aspect of education.

6.3 Feelings

Participants harboured feelings of fear and failure as musicians and as teachers of music pre-intervention, a key finding that opens this final section of Discussion (Section 6.3.1). An examination of how participants developed resilience (Section 6.3.2) and confidence (Section 6.3.3) to teach music follows, before a summary section considers the resulting impact on participants' developing identity as teachers of SEND music (Section 6.3.4). Although the issue of low levels of confidence for teaching music amongst GTMS has been well documented within the research literature (see Section 2.5.4), studies that have specifically examined how GTSS feel about teaching music remain sparse, indicating another contribution this study offers to the research community.

6.3.1 Fear and failure

Participants' low levels of confidence and self-efficacy for teaching music pre-intervention appeared to be fueled by both a sense of personal failure and a fear of

professional failure, alongside their low levels of competency. Some expressed clear feelings of fear related to the practical challenge of teaching music (Anna, Ellie), specifically in relation to instrumental work in Anna's case. General feelings of fear and misconception about teaching music are similarly prevalent amongst GTMS (Carroll & Harris, 2022), as are specific fears about instrumental work, with GTMS insinuating there is a level of risk involved in active and noisy instrumental activities (Bainger, 2010).

For others, there was an overwhelming sense within the data that their anxieties and fears around music teaching were linked to more general aspects of their teacher identity. Their comments that they were not challenging pupils (Anna, Gemma) along with a tendency to self-blame and self-deprecate (Ellie, Gemma), suggested they carried feelings of guilt about not being able to progress pupils in music and were self-blaming to some degree about their poor music teaching situation. Whilst perhaps they did carry some responsibility for their lack of training as a result of not acting upon their situations (see Section 6.2.2), it is clear that training had not been offered to them. Others shared feelings of professional vulnerability owing to the high number of Teaching Assistants (TAs) present in special school classrooms (Gemma, Imogen), suggesting they feared failing in front of and being judged by their colleagues (Barr, 2006) who they typically take charge of in every other aspect of their work. Stunell (2010) similarly made the link between issues of confidence for teaching music and generalized aspects of professional identity amongst GTMS. However, what is specific to these participants and so perhaps GTSS as a broader population is the level of vulnerability they face because of the need to lead and deploy a number of TAs in both a musical and pedagogical sense so that they can effectively support teaching (see Section 2.2). Despite being experienced GTSS and GTMS in some cases, their established teacher identities could not solve problematic feelings they had towards teaching music, particularly anxieties around risks posed to their general professional identity as classroom leaders.

6.3.2 Developing resilience

The evidence suggested that professional trust between the mentor and participants, along with the mentor's ability to nurture and affirm (Smith, 2005), was important in counteracting the range of negative feelings participants had. This

enabled them to develop resilience and persevere through difficulties as professional teachers of SEND music. This finding is supported by research that examines the efficacy of skill-based training in music with GTMS (Bainger, 2010) as well as in other practical subjects (Duncombe, Cale & Harris, 2018; Morgan, Bryant, Edwards & Mitchell-Williams, 2019), and aligns closely with research that depicts signs of self-efficacy for teaching music amongst GTMS (Wagoner, 2015). Ellie found the mentor's presence reassuring, giving her momentum to carry on in the face of difficulties and as Anna so explicitly explained, "*it's not giving up*" [FG3 12/19]. Others found value in observing how the mentor dealt with the challenges of SEND music teaching (Gemma). Imogen's realization that it's ok "*if it goes off piste a bit*" [FG2 07/19] captured this sentiment succinctly. Their comments suggest that participants had previously viewed music teaching as something that required perfection and that presented a level of practical risk to be avoided. However, they now viewed mistakes as acceptable (Bremner, 2013) and crucially had learnt to view and analyse failure as a normal part of professional practice in the context of music teaching, a clear indicator of their growth mindset (Dweck, 2017). The fact that participants were only able to reasonably process difficulties they encountered in their practice in this way is telling of their distinctly low levels of self-efficacy pre-intervention; their comments are arguably what a mentor would expect to hear from a trainee or Newly Qualified Teacher (NQT), which effectively these participants were given the lack of training they had been offered previously.

6.3.3 Developing confidence

Participants' feelings of confidence built in response to their new music teaching experiences, just as they had spiraled down as a result of their limited and negative experiences before. All four participants stated they felt more confident to teach music post-intervention in spite of such low levels of confidence pre-intervention. The evidence therefore demonstrated that it was possible to overturn these within the 10-month timeframe of the intervention. Their actions and comments clearly illustrate how their levels of confidence for teaching music were, quite simply, closer to where you would expect them to be for experienced teachers, a change that was summarized well by Imogen when she felt more able to "*have a go*" [Int2 01/20] post-intervention. Participants explained how they felt able to respond to issues or difficulties in their teaching, drawing upon their subject

knowledge and musicianship skills to adapt their approach (all participants). They felt informed as teachers, recognizing that their planning and assessments were credible because of their knowledge and experience (all participants). Some felt confident to direct TAs in class, cascading their PCK to these other staff (Anna, Gemma, Imogen), suggesting their feelings of professional vulnerability (see Section 6.3.1) had weakened. Others shared ideas for future work and were therefore taking charge of the music education of their pupils (Anna, Ellie, Imogen). Participants were emulating a sense of confidence in their own effectiveness which fed an authority 'to make important decisions about the conduct of their work' (Helsby, 1999, p.173). Their higher levels of confidence were being fueled by feelings of control and agency (Stunell, 2010), just as their low levels of confidence before had been dominated by a sense of failure and vulnerability.

Participants were also able to find enjoyment in and feel at ease when teaching music alongside the mentor as a result of the professional and mutual trust they shared, another sign of their changed confidence. Participants spoke about the relaxed and fun nature of classroom mentoring (Ellie, Gemma, Imogen), and in some cases, their enjoyment of teaching music (Anna) post-intervention. Gemma spoke directly about the collective enjoyment both her and her pupils were finding in her music teaching post-intervention (see Section 5.3.3). Findings suggest that participants had reached a point of flow, becoming absorbed by the task at hand, filtering out irrelevant thoughts and perceptions, and feelings of self-consciousness, allowing their sense of control over the environment to replace these (Csikszentmihalyi, 1977). Training in music has similarly led to increased enjoyment for teaching music amongst GTMS (Hallam, Rogers, Creech & Preti, 2005; Holden & Button, 2006; Varvarigou, Creech & Hallam, 2012) and teacher confidence has been linked to teacher enjoyment in the generalist music teaching context (Carroll & Harris, 2022; Ebbeck, Yim & Lee, 2008; Ibbotson & See, 2021). Confidence, enjoyment and resilience therefore emerged as key constructs underpinning participants' changed feelings of self-efficacy. When combined with themes of autonomy, responsibility and accountability found within participants' experiences and perceptions, collectively these terms provide a clearer picture of trends of self-efficacy within the GTSS music teaching context. This reveals how GTSS form identity as teachers of SEND music, building on a field of work that has so far been dominated by the experiences of GTMS.

6.3.4 Summary of feelings

Despite reporting low levels of confidence for teaching music pre-intervention and having no distinct identity as teachers of music, participants became professionally confident to teach music (Helsby, 1999). The repetitious and problematic cycle that had linked issues regarding their music teaching competence with their identity and confidence as teachers of music pre-intervention had now been replaced by a constructive and fruitful cycle. This new cycle, in which positive experiences of SEND music teaching were supporting participants to re-frame the way they viewed their own musicianship, as well as their self-efficacy and confidence to teach music, resulted in participants identifying as teachers of music, quite possibly for the first time in their careers.

The mentor had nurtured the development of 'an embryonic musical self-efficacy belief' (Stunell, 2010, p.100) that enabled participants to take charge of their pupils' music education and deliver higher standards of music teaching. Whilst there have been calls for music training with generalist teachers to separate their focus on developing music subject knowledge and skills from levels of musical self-concept and self-efficacy in order to achieve higher levels of competence (Eyre, 2010, Garvis, 2013; Henley, 2017; Jeanneret, 1997) the findings of this study certainly do not support such an approach within future research. This is because the confidence and developing music teacher identity of participants in this study were both responsive to and firmly intertwined with their experiences of skills-based training and mentoring. Based on this study's findings and in the specific context of SEND music teaching, it is strongly contested that developing the knowledge and skills base of GTSS is most effective when training is combined with mentoring within teachers' authentic teaching contexts, as has already been clearly stated in earlier sections of this chapter.

6.4 SEND sector implications and researcher reflection

The main contribution of this research to the SEND sector is that it offers a detailed metric of how GTSS develop SEND music pedagogy. The research therefore makes a significant and original contribution to professional knowledge and practice given the distinct lack of reference to SEND within generalist teacher training and CPD in music.

Findings shed light on the music subject knowledge and classroom musicianship skills required of GTSS if they are to teach music competently, presenting a model for the order in which GTSS learn and apply their knowledge and skills within the areas of the musical elements, vocal musicianship and instrumental musicianship. This model crucially details at which point GTSS are likely to have enough subject knowledge and classroom musicianship to inform their PCK, subsequently outlining what SEND music pedagogy entails. The way in which participants' subject knowledge and classroom musicianship developed typically followed what had been anticipated within a patchwork review of related literature, given a lack of consensus within other research on what this looks like for generalist teachers in any setting. Based on the experiences of this study's participants, there are finer details in relation to this GTSS music subject knowledge and musicianship model that are worth highlighting. Participants' understanding and application of the music elements within their specific classroom contexts was fundamental to their ability to accurately process and respond to their pupils' musicianship. It is therefore proposed that this area of classroom mentoring is crucial for all GTSS, regardless of their existing levels of musicianship and prior music teaching experience, so that they are able to fully assess and challenge the musical capabilities of their pupils. Developing the vocal musicianship of GTSS is also likely to be significant, particularly if they display confidence to sing in the classroom. This is because based on this study's participants, this confidence may potentially be masking significant gaps in their vocal musicianship that GTSS are unaware of.

To the knowledge of the researcher, this thesis may be one of the first studies to outline SEND music pedagogy. It unpicks how GTSS teach about and with the musical elements, how they teach pupils to play instruments and how they teach singing. Although this is illustrated in detail within the discussion of findings (see Figures 6.2, 6.3 & 6.4), key aspects of this pedagogy related to GTSS:

- developing their own strategies as well as drawing upon familiar SEND teaching strategies (such as multi-sensory teaching, intensive interaction, resonance boards) to teach musical concepts such as pulse using gesture and movement

- expertly selecting Untuned Percussion Instruments (UPI) that are accessible to pupils so that pupils can physically engage with instrumental learning appropriately and productively

- using a wide range of non-verbal strategies to encourage pupils to explore the sounds of UPI freely, controlling instrumental activities confidently and consistently

- using movement and/or props to support non-verbal cues when directing larger instrumental groups

- adapting the pace of singing so that pupils who may have limited or no verbal communication, and who may make use of augmentative or assistive communication systems can participate as singers

- exploring their own vocal sounds and mirroring those of their pupils

- adapting familiar songs and improvising new ones, sometimes turning singing into a game, in response to pupil interests and engagement.

Participants' ability to aurally analyse pupils' musical actions, interactions and responses, and therefore discern pupils' musical intentions within all types of music activity, was significant because findings suggest it challenged participants' assumptions regarding the musicianship of pupils with SEND.

This research offers an honest insight into the significant barriers GTSS are likely to face when asked to teach music as a result of their early influences (see Section 6.1.1), its main study findings strengthened by survey data from a larger number of GTSS (see Sections 4.2 & 4.3). Participants' negative and limited experiences impacted upon wider perceptions (see Sections 6.2.1 & 6.2.2) and feelings (see Section 6.3.1) they had towards teaching music. This research provides a starting point from which to establish an approach to professional learning in music for in-service GTSS that would disrupt this negative cycle. Skills-based musicianship training and classroom mentoring specific to teachers' classroom contexts from a SEND music specialist was crucial. In order to replicate the community of practice that emerged out of this research in other special schools it is advised that this SEND music specialist is sourced from within the permanent school staff and not brought in temporarily from outside, so that a cycle of coaching and reflection extends beyond the initial training phase for GTSS as they continue to

embed their practice and cascade this down to others. By documenting the strategies and ideas used by the mentor, this study presents the building blocks of a SEND musical toolkit that GTSS and others who teach SEND music within a community of practice can make use of, adapt and extend.

If this SEND music training model is to be implemented with wider groups of GTSS in other special schools, there are some practicalities around group training that mentors may want to consider that were unforeseen within this research. It may work better to group GTSS for skills-based training sessions based on their existing music subject knowledge and skill base. Whilst group training was helpful so that participants had a sense of collegiality and could discuss their training experiences, there were times in group training when it was obvious to the researcher that skills-based training was too simple for Imogen. The other potential option would be to group GTSS according to the nature of their class. Although there were areas of music subject knowledge and classroom musicianship skills that were important for the developing SEND music pedagogy of all participants, regardless of whether they had a class of pupils with SLD, PMLD or autism, the researcher's own reflection is that it was difficult at times within group training to model ideas that worked for all SEND music classrooms as a result of the finer detail that sits within this pedagogy. For instance, whilst pupils with autism can become over-stimulated by noise, pupils with PMLD typically require a high degree of sensory stimulation which may include lots of sounds (see Section 2.3).

7.0 Conclusion

The purpose of this study was to examine the impact that a skills-based training intervention in music had on the experiences and views of a small number of Generalist Teachers in a Special School (GTSS). It was hypothesised that training these teachers as musicians would lead to a significant change in their levels of competency and confidence for teaching music because they would be able to teach as musicians. Reporting developments in their subject knowledge, classroom musicianship and Pedagogical Content Knowledge (PCK) in Special Educational Needs and Disabilities (SEND) music measured the change in their practice. Documenting this change, along with key features of the SEND music training model implemented within the intervention, was important to the research community in light of there being no known research into SEND music pedagogy and how GTSS are best trained to deliver this.

7.1 Key findings

The first research question asked: how prepared were GTSS participants to teach music based on their prior training and teaching experiences?

Findings indicate that participants were wholly unprepared to teach music because of significant gaps in their subject knowledge, classroom musicianship and PCK in SEND music that had triggered feelings of low self-efficacy towards teaching music and limited self-concept as musicians. They had encountered little to no contact with sources critical to the development of teachers' self-efficacy beliefs (Bandura, 1997), including those known to be important within the generalist music teacher context (de Vries, 2013).

Participants' own poor school music education experiences and a significant lack of professional training in music within both their Initial Teacher Training (ITT) and in-service Continuing Professional Development (CPD) triggered significant gaps in their practice that they had failed to acknowledge or address (see Section 6.1.1). Survey findings suggest this situation may be typical of the wider population of GTSS (see Section 4.4). Participants had excluded music from core curriculum

provision for pupils with SEND, displaying a tendency to justify this by talking of the role music played in pupils' development of key skills and in their delivery of other subject areas (see Section 6.2.1). Participants' low self-efficacy for teaching music caused them to distance themselves from any responsibility or ownership of teaching music (see Section 6.2.2), a vicious cycle also observed in relation to Generalist Teachers in Mainstream Schools (GTMS – Garvis, Twigg & Pendergast, 2011). Their past experiences had coloured views of their own musicianship, a limitation they appear to have then projected onto their pupils in the way they were equally dismissive about their musical potential, providing evidence in support of the hypothesis that participants had a pre-existing, subconscious prejudice regarding the musicality of pupils with SEND (see Section 1.1). Participants shared feelings of fear and failure (see Section 6.3.1) that, when combined with low confidence and poor self-efficacy, amounted to a major self-concept block for teaching music. These findings mirror what is known about the early experiences of GTMS, including varying and sometimes damaging school experiences (Pitts, 2012; Saunders & Welch, 2012; Welch & McPherson, 2012), along with a lack of ITT (Hennessy, 2017; Varvarigou, Creech & Hallam, 2012; Welch & Henley, 2014) and CPD (Daubney, Spruce & Annetts, 2019; Zeserson, Welch, Burn, Saunders & Himonides, 2014) in music. The impact these experiences had on participants and how they approached their practice provides an insight into the range of factors that may influence music teaching amongst the wider population of GTSS that special school leaders and GTSS themselves need to be aware of.

The second research question asked: which new training and teaching experiences were most impactful on participants' developing competence and confidence to teach SEND music?

The classroom practice of all four main-study participants developed significantly as a direct result of the learner-centred, grass-roots training model implemented within this study (see Section 6.1.2). The study's findings provide a detailed metric of how GTSS develop SEND music pedagogy, shedding much needed light on 'music-pedagogical thinking and practice' (Ockelford & Markou, 2012) in the SEND context. Being trained and mentored

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to develop their understanding of and fluency in the musical elements (see Figure 6.2), instrumental musicianship and leadership (see Figure 6.3) and vocal musicianship and leadership (see Figure 6.4) were most impactful on participants' developing PCK, proving that the model of subject knowledge and musicianship proposed for this research that had been derived from nearby fields of work (see Table 2.2) was accurate. This model indicates that there is a common order in which GTSS learn and apply music subject knowledge and musicianship skills, and that a certain level of competency within the above areas is required before they are ready to make a pedagogical application to practice. Once they do, there are clear parallels to be drawn with EY music pedagogy, confirming hypothesized links between the two (see Table 2.1), although the highly specialist nature of SEND music pedagogy resonates throughout the discussion of findings.

Training participants to understand and use the terms 'pulse' and 'rhythm' as a priority were most impactful on their classroom practice. Being confident to handle and model playing using UPI was sufficient for developing the instrumental musicianship of pupils; whilst they would certainly add value in some classroom contexts, tuned instruments were not necessary for developing classroom musicianship and PCK for leading instrumental teaching amongst participants. Participants' confidence to sing in the classroom could easily have masked or been a distraction from what were significant gaps in their vocal musicianship and PCK in classroom singing; this is something future mentors need to be aware of. Training participants in their understanding of the musical elements in a way that enabled them to apply this within their classroom contexts was collectively an important area of training because it enabled participants to recognize and respond to the musicianship pupils were displaying in the classroom. Participants subsequently developed higher expectations of what their pupils could do and achieve in music, challenging and dispersing their previous, subconscious prejudice that pupils with SEND did not have the potential to develop as musicians.

Participants' self-efficacy for teaching SEND music developed largely in line with research involving GTMS (Wagoner, 2015). Unique to the SEND context however was participants' ability to scaffold music learning around the highly idiosyncratic needs of SEND pupils, devising their own approach by adapting ideas and resources, and importantly by drawing upon recognized and unique SEND

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teaching strategies. These findings paint a picture of how professional teachers of SEND music, with high levels of self-efficacy, function autonomously in the music classroom. Participants' increasing levels of self-efficacy for teaching SEND music emerged primarily as a result of vicarious experiences with a SEND music specialist mentor, demonstrating the importance of combining musicianship training with participant-specific mentoring in the real-world settings of sample classrooms. Skills-based training was needed in order to address particularly problematic areas of subject knowledge, such as participants' fluency with the musical elements and instrumental musicianship, before attempts could be made to apply this to classroom settings. Individual classroom mentoring then embedded this training in ways that met the specific and varied needs of SEND classrooms. This required the mentor to have SEND music teaching competences across areas of pupil need including Severe Learning Difficulties (SLD), Profound and Multiple Learning Difficulties (PMLD) and autism. Training participants as musicians, framed by learner-centred approaches within their skills-based training and mentoring, gave them the skills and confidence to engage with music and with other teachers of music within a community of practice. The way in which participants approached and felt about their practice had transformed to a point whereby they could reasonably support other GTSS to teach music in classrooms similar to their own.

The third research question asked: what impact did this training have on the professional identity of GTSS participants as teachers of music?

Low self-efficacy beliefs that participants had towards their own musicianship and their music teaching capabilities pre-intervention had been replaced by positive perceptions and feelings post-intervention. These changes were intrinsic to how participants constructively viewed their developing role as generalist teachers of music, along with their wider values and belief systems towards their own musicianship and that of their pupils.

The connection between competence, confidence and self-efficacy in the music training and teaching experiences of generalist teachers is well documented within existing research with GTMS (Chokera, 2016; Lowe, Lummis & Morris, 2017). This study's findings add to this research by illustrating the link in relation to GTSS,

making reference to the impact of participants' reformed experiences on their evolving perceptions and feelings. The formation of participants' self-efficacy beliefs was grounded richly in their experiences as they learnt to teach SEND music, both as these were perceived by participants themselves and as they were observed by the researcher. Themes of autonomy, responsibility, accountability, confidence, enjoyment and resilience patterned the data across participants' post-intervention experiences, perceptions and feelings. Whilst this mirrored research with GTMS in many respects (Carroll & Harris, 2022; Ebbeck, Yim & Lee, 2008; Ibbotson & See, 2021), the study's findings provide a previously unreported insight into how GTSS might develop identity as professional teachers of SEND music.

7.2 Significance of the study

The study set out to make an original and significant contribution to professional knowledge and practice in the areas of teacher training in music and SEND music teaching. It primarily sought to investigate: factors that had adversely affected the formation of self-efficacy beliefs of in-service GTSS to teach music (research question 1); the kind of training experiences that could help to overturn these and how this was evident in the developing music teaching practice of GTTS (research question 2); how a change in self-efficacy amongst GTSS might impact upon their wider attitudes and belief systems about themselves and their pupils (research question 3). Its aim was to address issues of competence and confidence in the music teaching practice of GTSS participants by implementing a person-centred training model in SEND music with a focus on developing them as musicians, so that they could teach as musicians. Investigating potential prejudices participants had towards developing the musicianship of SEND pupils was also deemed a valuable area of the study.

Up until this study, there had been little to no research into how GTSS approach music teaching and how they feel about this aspect of their practice (Ockelford & Markou, 2012), meaning this study makes an important contribution to the field of SEND music in general. Whilst many generalist and specialist teachers of music are likely to know anecdotally through their professional experience that GTSS are not equipped with the right skills or levels of self-efficacy to deliver high-quality curriculum music provision, the reasons for this situation had not been examined within music education research to the knowledge of the researcher. This

study has uncovered a number of barriers that GTSS are likely to face when teaching music, assuming the experiences of this study's four participants are representative of the wider GTSS population, which survey findings suggest they are (see Section 4.4). Some of these barriers, such as negative experiences of their school music education and limited music training within their ITT leading to distinctly low levels of self-efficacy, were fairly predictable based on research involving GTMS (see Section 2.5.4). Participants' view of music not being part of the core SEND curriculum was also somewhat expected based on the researcher's professional experience (see Section 1.1). Other barriers, such as participants' subconscious low musical expectations of pupils, emerged unexpectedly within the findings because in the professional experience of the researcher, GTSS tend to have high expectations of their pupils in other subject areas. This offers an important insight into barriers that may be less obvious to future researchers and special school leaders.

This research provides a starting point from which to establish an approach to professional learning in music for in-service GTSS. Findings revealed three main areas of subject knowledge and classroom musicianship that are important so GTSS can apply these to their SEND music pedagogy, these being their knowledge of the musical elements, along with their instrumental and vocal musicianship. Based on the findings of this study, it is reasonably expected that training GTSS to develop their knowledge and skills in these areas will trigger changes in their PCK (see Figures 6.2, 6.3 & 6.4). Areas of learning and emerging PCK were consistent between participants, despite their different SEND teaching contexts. Supporting teachers to develop fluency when teaching with the musical elements was collectively important to GTSS and in fact the most impactful area of training in this study. It is therefore likely to be applicable and important for all GTSS, even those with higher levels of subject knowledge and more experience of teaching music gained through their previous experiences. This area of training is likely to directly challenge assumptions GTSS may have regarding the musical capabilities of pupils with SEND. Experience in SEND music teaching, and specifically of the range of SEND needs in schools, is essential for a mentor because this enables GTSS to collaborate and reflect with the mentor specifically on issues related to the varying nature of their classroom contexts. It also means that the mentor can draw upon SEND teaching strategies that work in these specific classroom contexts, an approach that supports GTSS to develop self-efficacy for teaching SEND music and

that subsequently underpins their SEND music pedagogy as autonomous teachers of music.

Alongside the fact that there appears to be no similar research with GTSS, existing studies involving GTMS typically fail to report the content and approach to training and the impact that training has on pedagogical practice in the level of detail this study does with GTSS (see Section 2.5.6). This study focused specifically on developing the subject knowledge and musicianship of GTSS, with researcher-led observation of practice being used rather than relying on self-reported data from participants, as had typically been the case with GTMS research. The lack of research into the music training needs of GTSS and how these were best addressed was a gap in the literature that had been exacerbated by confusion regarding PCK in music and no obvious understanding of PCK in SEND music (see Section 2.4.2). Outlining the specific approach to and content of training contributes knowledge to the SEND sector in terms of the musicianship skills that are required of GTSS to teach music competently and the PCK that underpins their practice in music; to the knowledge of the researcher, this is the first such study to do so. This study's findings illustrate the efficacy of a low-cost but high-impact solution to the competency and confidence issues that GTSS face when teaching music, thereby offering an original and significant contribution to professional knowledge and practice as a means of tackling a potentially sector-wide problem, both nationally and internationally. The training model that is outlined could feasibly be replicated not only to address GTSS delivery of music but also other practical subject areas that GTSS are required to teach. This is a task beyond the scope of this research but one that the researcher respectfully invites the SEND research community to consider shortly (see Section 7.5).

7.3 Recommendations

This thesis makes six key recommendations for practice that are aimed at future SEND music mentors and special school leaders, as well as SEND and music education policy makers.

RECOMMENDATION 1: there are certain aspects of SEND music training that mentors would be wise to include when working with GTSS. Training GTSS to understand and apply the musical elements fluently within their teaching that is

specific to their classroom contexts is likely to trigger significant changes in their PCK and challenge their potential prejudices regarding the musical potential of pupils with SEND. Mentors should anticipate that GTSS may be unaware of gaps in their subject knowledge and practice, and should therefore be vigilant to gaps beyond those that GTSS voice. Further to this, mentors should be alert to the fact that confidence in leading classroom singing could easily mask gaps related to vocal musicianship and leadership of classroom singing amongst GTSS. This is particularly crucial so that pupils can develop their vocal musicianship, rather than simply be exposed to 'just singing [as] light relief' (Ashley, 2015, p.16) within the teaching of the broader curriculum.

RECOMMENDATION 2: SEND teacher training in music should be learner-centred with respect to the needs of teachers and their pupils alike, in order to elicit changes in practice that are significant enough to improve the quality of music education on offer to pupils. This means that a mentor needs to be competent enough to deal with the specific music training needs of teachers but also the music education needs of a range of SEND pupils present in special school classrooms.

RECOMMENDATION 3: SEND music mentors could consider training GTSS in groups alongside EY GTMS, given certain aspects of training and mentoring that were successful with participants mirrored those used and observed within the training of EY teachers (Bainger, 2010; Barrett, Zhukov & Welch, 2019). Likewise, pedagogical orientations that participants developed as part of their developing SEND music pedagogy closely reflected those of EY GTMS (see Section 6.1.2), the researcher acknowledging through her professional experience the close relationship SEND music teaching has with EY music teaching. This is not to detract away from the unique findings of this study in relation to the specific music training needs of GTSS; it simply offers a practical recommendation that may ensure CPD is time and cost efficient.

RECOMMENDATION 4: after facilitating an initial phase of training and mentoring in SEND music, such as by implementing a training model similar to the one designed in this study, special school leaders should put plans into place to ensure an emerging community of practice in music can thrive. Professional isolation weakens

teachers' efficacy beliefs (Tschannen-Moran, Woolfolk Hoy & Hoy, 1998) emphasizing the need for a community of practice in which GTSS can develop as teachers of music together and support others in their quest to do so. In the same way low self-efficacy 'can be contagious among a staff of teachers, creating a self-defeating and demoralizing cycle of failure' (Tschannen-Moran, Woolfolk Hoy & Hoy, 1998, p.222), a community of practice is likely to promote feelings of competency, confidence and self-efficacy between GTSS. Keeping a music specialist mentor on hand is likely to be important so that the training of GTSS can be topped-up by someone who knows the school and so that GTSS have a more knowledgeable other to approach when needed. A programme of coaching between GTSS who have similar classroom contexts will likely sustain the community of practice, in the way that those teachers who have experienced training specific to their classroom contexts can pass their knowledge and expertise on to others. This sustainable solution to CPD in SEND music will result in better outcomes for pupils and teachers than releasing teachers for external training courses or buying external trainers in.

RECOMMENDATION 5: school leaders across sectors should ensure that curriculum music is taught by generalist teachers in order to re-brand music as a subject that all teachers can and should teach. In the case of GTMS who become GTSS, they will therefore have mastery experiences of teaching music and some PCK in music that they can then draw upon before facing the additional complexities of SEND music teaching. This may stop generalist teachers across sectors shirking responsibility for teaching music and consequentially being of the view that developing their own musicianship and that of their pupils is simply not their priority. This will hopefully counteract a situation in which GTSS may be excusing their pupils from the need to engage with curriculum music because they have already excused themselves from doing so. It is recognised that this is likely to require a change of mindset from special school leaders about curriculum music, given they will have been GTSS and/or GTMS earlier in their careers, and so are likely to share the same experiences, perceptions and feelings as the study's participants did pre-intervention.

RECOMMENDATION 6: those involved in setting national policy and agenda related to curriculum, SEND and music education respectively need to be aware of issues

that emerged through this research and the implications of these. Serious and urgent attention should be paid to music and its place within primary school curriculum policy and national agendas related to school performance, given the damage that its low status is clearly having on generalist teachers. Findings from ISM's recent report *Music: A Subject in Peril* (ISM, 2022) reveal continued concerns regarding the quality and time dedicated to music provision in primary schools, alongside serious concerns about budget allocation. This research makes a direct connection between policy and the music teaching practice and belief systems of GTSS, and therefore the music education experiences of pupils with SEND.

The situation would undoubtedly be improved if music education policy and curriculum explicitly made room for SEND. The fact that they fail to must only be reinforcing unfavourable perceptions regarding pupils with SEND and their musicianship that possibly dominate the thoughts and practices of GTSS. The recent National Plan for Music Education (DfE & DCMS, 2022) does refer to SEND in a number of places, but this is largely in relation to mainstream inclusion and not specialist SEND settings such as the research school.

Finally, the curriculum in special schools may well require an overhaul. Currently, primary special schools are required to follow the national curriculum (DfE, 2013) which, on paper, puts core subjects ahead of other subjects. In the professional experience of the researcher, this imbalance ripples through special school provision, in terms of curriculum, timetables and CPD. The researcher politely suggests that music is given a much more prevalent platform within national SEND policy, given it is an area that pupils with SEND appear to engage well with and excel at. Over time, this may then alter a situation in which GTSS de-value music within the education of pupils with SEND, instead paving the way for a system whereby GTSS view their pupils as musicians in training.

7.4 Evaluation of methodology

This study and the analysis of its research data was driven by three research questions (see Section 2.6) and by the essential criteria of representing participant voice and offering person-centred support within a skills-based training and mentoring model that met the music teaching needs of participants. It was also heavily guided by the researcher's theoretical underpinnings (see Section 3.3), primarily in its learner-centred approach that was rooted in the daily practice of a

special needs school. A qualitative approach to data collection and analysis was taken within the main study, in order to track participants' experiences, perceptions and feelings as they engaged with a programme of training and mentoring.

7.4.1 Successes

Drawing upon learner-centred theory and elements of an ethnographic approach met the aims of the study because this acknowledged how participants' teaching environments, and the embedding of individual learning within these environments, would impact upon their music teaching practice. It was crucial to understand from an insider's perspective how an effective learning culture was best established within this environment that met the individual needs of teachers. The researcher, working as the mentor, was rooted in the culture of the target school and so, as a professional ally, understood the situation participants were experiencing from their point of view. Although the researcher obviously did not experience the same concerns about teaching music, she could relate to the situation participants were in owing to her own experiences of teaching other subjects that she lacked confidence in, to pupils with such varied and complex needs.

The study made use of 'rigorous research methods and data collection techniques to avoid bias and ensure accuracy of data' (LeCompte & Schensul, 2010, p.15). This was crucial given the researcher acted alone in the collection and analysis of data. Some forms of data collection enabled individual participants to tell their story openly and honestly (timelines, individual interviews), whilst others effectively captured the thoughts and feelings of the research group as a whole (training sessions, focus groups). The combination of the two techniques complemented each other well in order to harness the views of individual teachers so that training and mentoring could be truly participant-led, but to also portray in-depth information about a group of professionals that have been neglected by the research community. Classroom observation data provided the most powerful insight into the situation that was under investigation, in the way participant perceptions of their existing and developing practice could be mapped against the reality of their classroom practice, providing rigour to the findings.

7.4.2 Limitations

The purpose of this study was to explore the context-specific experiences of a small number of teachers before and after they engaged with a grass-roots training

model in SEND music. Whilst it was crucial that the study stayed true to its essential criteria of representing participant voice and offering person-centred support so that this aim could be met, this did limit the generalizability of the study's findings (see section 3.8.2). The researcher acknowledges that if more GTSS had been involved in the study from the same research school, or if participants from more than one SEND school had taken part, claims made within the study would carry more weight and validity across the sector. Similarly, it is noted that participants self-selected for the main study at the end of their phase 1 survey and so approached the intervention with motivation. Equally promising results may not be replicated with a wider pool of GTSS participants who are less motivated to take part. However, given the absence of similar research, the researcher respectfully suggests that this study is of interest to the broader special school sector nationally and internationally.

Given the researcher conducted data analysis alone, further use of member checking would have strengthened the validity of the study's findings. This could have been achieved by participants watching back recordings of their teaching with the researcher. This has been effective in studies involving GTMS (Barret et al., 2019). However, the researcher did not want to place any additional pressure or workload requirements on the participants, given their long-term commitment to the study (BERA, 2018). Further to this, whilst the decision to qualitatively analyse the wealth and diverse range of data by hand had its advantages in terms of the researcher being close to the data from the outset, this did present its challenges. It was difficult to audit and track the number of codes that emerged from the data at different points of analysis, and to then review these systematically as further data was analysed and new codes emerged. An electronic tool to support with this complex analysis may well have highlighted further codes and connections between the data sets.

Research in the field of mentoring and professional development with teachers indicates the value of teachers working alongside each other to rehearse and collectively nurture their developing skills (Sprott, 2019; Young, Cavanagh & Moloney, 2018). Although main-study participants did have the opportunity to trial new skills during group training sessions and discuss their experiences during focus group discussions, they did not teach music together as part of their training. The researcher acknowledges that this would have been a valuable addition to the study that would have enriched the data, as participants would have been able to broaden

and contextualise their individual learning journeys. This would, however, have presented logistical difficulties at the research school in terms of providing cover for teachers when they were out of class doing this and may possibly have overwhelmed pupils as a result of having additional adults in classrooms.

7.5 Suggestions for future research

The focus of this study was quite clearly on addressing the music training needs of four GTSS at the research school, reporting on the implementation of a programme of SEND music training aimed at addressing shortcomings in their experiences that had ultimately impacted significantly on their readiness to teach music. This study has been a resounding success, having made a number of clear and valuable contributions to professional knowledge and practice. Training and mentoring had a significant impact on participants' experiences of teaching music, positively influencing their perceptions towards and feelings about this aspect of their practice. Its unique methodology may be of particular interest to future researchers in the field of music education, teaching training and the role of both within the special school sector.

The study provides valuable information about the barriers that its participants had faced when teaching SEND curriculum music and how training could directly challenge these by building the competence and confidence of GTSS. However, the small-scale of the study limits the generalizability of findings beyond the research school, inviting future work that may potentially validate these findings with larger numbers of participants and perhaps across a number of special school settings.

Although the study's focus was on SEND music training, the grass-roots model that was implemented does not need to be limited to music and could be applied to other, practical subject areas that require GTSS to lead from the front using their own skills in and knowledge of the subject, and so may be subjects that GTSS also lack the competence and confidence to deliver. It is beyond the scope of this thesis to explore what these may be, but in the professional experience of the researcher, these are likely to be other subjects that require GTSS to model their own subject-specific skills and then convert these into PCK that meets the varied needs of learners with SEND, such as art, drama and PE. Incidentally, these may

also be subject areas, like music, that are neglected within ITT and in-service teacher CPD.

7.6 Concluding remarks

Using a combination of learner-centred, skills-based training and mentoring to train teachers is not innovative or new; this is an established approach used within ITT for trainees across subjects and sectors, and as part of in-service CPD for many other subjects with GTSS. By applying this to the SEND music field, this study makes a new application to good practice in how to effectively equip GTSS for their role and the challenges their role presents. This application made a notably positive difference to the music teaching experiences of participants and as a result of this, this study's original contribution to practice is an in-depth appraisal of a grass-roots training model that could bring about real change to music teaching in special schools.

Although the focus of this study has very clearly been on ensuring GTSS are skilled and confident enough to teach music, the researcher does not intend to detract away from the importance of music specialists in these settings. Aside from being able to establish a community of practice in a school, a music specialist teacher is likely to play a key role in continuing to develop the skills and practice of GTSS once this is formed. Within a community of practice, GTSS are likely to be able to engage more professionally and fluently with this specialist or a music coordinator in terms of the philosophies and practicalities of curriculum music on a much more level footing. This study's participants are now actively doing so within the research school, illustrating the legacy that training and mentoring has left, and the potential for this to be achieved more widely across the special school sector.

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I am still working at Mount View School alongside three of the four main-study participants who took part in this study. We still have corridor conversations about their music teaching and discuss new ideas, strong indicators that the community of practice that emerged out of this research is thriving. The participants sometimes refer back to key points of their training, reminding me of what really made the difference to their practice. For instance, Imogen recently spoke to me about how she now teaches the

musical elements each year to her class through a multi-sensory and interactive story. She has also invited me back into her class to continue with further music training.

My priority now is to extend this training and mentoring model to more GTSS in the school, something I have already begun to do. I have factored in annual musicianship training for as many GTSS in the research school as possible on INSET days and have a rolling programme of classroom coaching to follow through from this training. Teachers new to the sector and/or the profession are offered a cycle of classroom mentoring a term after they settle in. In the future, I would hope that some of this study's participants may be able to scaffold this for their new colleagues. I have also adapted some of the training for Teaching Assistants in recognition of the significant role they play in special school classrooms. This has led some support staff to ask for musical toolkits or activity bags that they can pick up and use with pupils, perhaps when covering teacher absence, an idea that had not previously occurred to me.

I hope to be involved with the music training of trainee teachers. Although their training is unlikely to be SEND specific as a result of almost all training routes in England being mainstream based, my aim would be that when some of these trainees convert across to the SEND sector later in their careers they will have acquired basic areas of music subject knowledge and classroom musicianship, perhaps requiring a mere top-up, with the priority being on classroom mentoring specific to their SEND classroom contexts. It would be wonderful if some ITT providers found the space on training routes for an element of SEND music training, something I would be delighted to deliver!

I recognize that my experience as a SEND music specialist and insider position in the school were both key to the success of this research; I appreciate that replicating this in other settings may not be easy. However, I hope to be able to share this research within professional and academic forums moving forward, so that other SEND music specialists may be inspired by my findings and special school leaders may seek out these specialists. My plea to these leaders is to not timetable music for music specialist teachers from either within or outside of the school, but to facilitate opportunities for music specialists to work with generalist teachers as musicians so that music for all (teachers and pupils alike) becomes normalized within the school community and pupils are taught by those who know them best.

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Appendices

Appendix 2.1 Content of music training with GTSS

Content of music training within ITT review (Hennessy, 2017, p.695)	Content present in GTMS training (see Section 2.5.6)	Content of music training with GTSS (based on researcher's professional experience)
developing a sense of pulse and rhythm through circle games; movement and playground games	√	√ and other musical elements
listening games to develop aural discrimination and acuity	√	√
listening for musical understanding and appreciation; and as a stimulus for creative work		√
exploring the voice and singing	√	√ including classroom singing repertoire such as warm-ups, chants, vocal games and action songs
playing classroom instruments for composing and improvising	√	√ drums & untuned percussion specifically due to physical difficulties of some pupils, including found sounds & sound makers in the environment
learning to play drums, guitar, ukulele, recorder	√	√ as above
gaining experience of different genres and traditions through listening and playing		√
using technology to support teaching (recording children's music for assessment; backing tracks)		√
using technology to support children's own music making (recording and editing to; simple sampling programmes)		
using technology to make music accessible (touchpads and other assistive technologies)		√ dependent upon resources available in schools
working with graphic and staff notations	√	√ graphic scores specifically
composing using stories, poems, soundwalks, images, video	√	√ including multi-sensory music making

Appendix 3.1 Phase one survey

Research Aim: To evaluate the impact of a skills-based intervention on the readiness of teachers in special schools to use and teach music

Instructions on how to complete the survey:
Spend some time considering your responses; these do not need to be handed back to the researcher for another two weeks. Please return the survey to the researcher in the envelope provided. Please try to explain your answers and provide examples as much as possible.

SECTION 1 : music and its role in your school

1. How valuable do you think music is to your pupils? *(please select one answer)*

Very valuable ☐

Valuable ☐

Neither valuable nor not valuable ☐

Quite valuable ☐

Not at all valuable ☐

Please explain your answer: …………………………………………………..

…………………………………………………………………………………..

…………………………………………………………………………………..

…………………………………………………………………………………..

2. Do you think other people (other professionals, Governors, parents) value music in terms of its impact on your pupils? *(please select one answer)*

Yes ☐

No ☐

Unsure ☐

Please explain your answer: …………………………………………………..

…………………………………………………………………………………..

…………………………………………………………………………………..

………………………………………………………………………………………………………..

3. How many of your pupils respond more positively to music lessons than to other subject lessons? *(please select one answer)*

All of my pupils ☐

Most of my pupils ☐

Some of my pupils ☐

None of my pupils ☐

4. Please complete the following in your own words:

Music therapy is / is not *(* delete as appropriate)* different to music education

for my pupils because……………………………………………………………………...

………………………………………………………………………………………………..

………………………………………………………………………………………………..

………………………………………………………………………………………………..

………………………………………………………………………………………………..

SECTION 2 : **your experiences of music education and music opportunity**

1. During your childhood, which of the following musical opportunities did you experience? *(please select all relevant answers)*

I had class-based music lessons at primary school ☐

I had class-based music lessons at secondary school ☐

I studied music as part of further or higher education ☐

I had instrumental lessons or singing lessons ☐

I was part of an instrumental group or choir ☐

I went to concerts or gigs ☐
I did not experience any musical opportunities ☐

Other *(please specify)* ☐

……………………………………………………………………………………

2. As an adult, which of the following musical opportunities do you experience? *(please select all relevant answers)*

I have instrumental lessons or singing lessons ☐

I am part of an instrumental group or choir ☐

I go to concerts or gigs ☐

I do not experience any musical opportunities ☐

Other *(please specify)* ☐

……………………………………………………………………………………

3. Do you have any music qualifications? *If yes, please provide brief details*

Yes …☐……………………………………………………………………

No ☐

4. How musical do you feel you are? *(please select one answer)*

Very musical ☐

Musical ☐

Neither musical nor not musical ☐

Quite musical ☐

Not at all musical ☐

5. How often do you use the following musical activities (in everyday activities or music lessons) in your classroom? *(please select one answer for each activity)*

1 = not at all
2 = very little
3 = a little

4 = quite a lot
5 = a very great deal

Listening to / appraising music [   ]   Music technology [   ]

Performing using voices/song [   ]   Performing using instruments [   ]

Composing using voices/song [   ]   Composing using instruments [   ]

6. In terms of the type of activity (above) you use the <u>most</u>, in what way(s) do you use it?

……………………………………………………………………………………..

……………………………………………………………………………………..

7. In terms of the type of activity (above) you use the <u>most</u>, why do you think you use it <u>more</u> frequently than other types of musical activity?

……………………………………………………………………………………..

……………………………………………………………………………………..

8. In terms of the type of activity (above) you use the <u>least</u>, why do you think you use it <u>less</u> frequently than other types of musical activity?

……………………………………………………………………………………..

……………………………………………………………………………………..

9. How confident are you at using music with or teaching music to your pupils? *(please select one answer)*

Very confident   ☐

Confident   ☐

Neither confident nor not confident   ☐

Quite confident   ☐

Not at all confident   ☐

10. Do you have any fears or concerns when it comes to using or teaching music? *(please select one answer)*

Many ☐

Quite a few ☐

Some ☐

Not too many ☐

None ☐

Please explain your answer: …………………………………………………..

…………………………………………………………………………………..

SECTION 3 : your music training

1. During your teacher training or teaching career, how much training or support have you received to help you use and teach music? *(please select one answer)*

Very little ☐

A little ☐

Some ☐

A lot ☐

A very great deal ☐

2. These experiences of training or support have had an impact on my ability to use and teach music in my classroom *(please select one answer)*

strongly   1   2   3   4   5   6   7   8   9   10   strongly
agree   disagree

Please explain your answer: …………………………………………………..

…………………………………………………………………………………………………..

…………………………………………………………………………………………………..

…………………………………………………………………………………………………..

3. In terms of further developing your own musical skills, please place these 'I can' statements in rank order of the skills you feel you would need most training or support with. Please place the position (1-10) against them, number 1 being the skill needing <u>most</u> training or support and number 10 being the skill needing <u>least</u> training or support:

I can identify the elements of music   [   ]

I can identify music from different historical periods, different   [   ]
musical genres and different countries

I can sing with confidence   [   ]

I can play an instrument with confidence   [   ]

I can lead and direct a song   [   ]

I can lead and direct an instrumental group   [   ]

I can improvise musical ideas   [   ]

I can compose musical ideas   [   ]

I can read a form of musical notation   [   ]

I can write down my musical ideas using a form of notation   [   ]

SECTION 4 : summary

1. Are there any other comments you would like to make with regards to your own or your pupils' musical education and opportunity?

……………………………………………………………………………………………...

…………………………………………………………………………………………………..

…………………………………………………………………………………………………..

…………………………………………………………………………………………………..

2. Would you be interested in taking part in a research study aimed at supporting you to develop your musical skills and confidence in the classroom?

Yes ☐

No ☐

Unsure ☐

Appendix 3.2: Phase 2 blank timeline

<u>Timeline of Music Education Experiences</u>

Primary School

↓

Secondary School

↓

Further/Higher Education

↓

Professional Life

Appendix 3.3: Phases 2 and 4 interview schedules

Phase 2 (pre-intervention)

		Discussed
Introduction	Study background & aims	☐
	Participant Prerogatives	☐
Based on Research Question 1: What do teachers in special schools perceive to be the main barriers/difficulties to teaching music?	**Theme 1: life long experiences with music education & training** *This section of the interview will be based on information revealed in participant timelines. Interview questions are unknown at this point as timelines have not yet been completed by participants. Possible questions might be:* "To start with, I'd like to know more about the Music education experiences you have mentioned on your timeline, starting with your Primary School Education." Can you tell me why you identified [this experience] as positive/negative/neutral? ☐ *(experience/behaviour questions):* What happened? ☐ What did you do? ☐ *(feelings questions):* How did you feel about that experience? ☐ How did you respond to that experience? ☐ *(knowledge question):* How did that experience contribute to your musical knowledge? ☐ **Theme 2: Current use of music in the classroom** *This section of the interview will be based on information revealed in the phase 1 survey. Interview questions are unknown at this point as surveys have not yet been completed by participants. Possible questions might be:* "To begin the next part of the interview, I'd like to know more about your current use of music in your classroom and how you feel about this."	

	You identified that your pupils respond more/less positively to music than other subjects? Can you talk more about how you know this? ☐
	You mentioned that you currently use [the following] musical activities in your classroom most often. Can you talk me through how you use them and why you use them more frequently than other types of musical activity? ☐
	You mentioned that you currently use [the following] musical activities in your classroom least often. Can you talk me through why you use them less frequently than other types of musical activity? ☐
	You rated yourself at [this level of confidence] in terms of how confident you are at using and teaching music in your classroom. Can you explain why you feel like this in a bit more detail? ☐
	You said that you had [this number of] fears or concerns when it comes to using and teaching music in your classroom. Can you explain why you feel like this in a bit more detail? ☐
	Do you think you can overcome these fears/concerns with the appropriate support? ☐
Based on Research Question 2: How can teachers in special schools be supported to develop their own musicianship in order to increase their readiness to teach music?	**Theme 3: Desired use of music in the classroom** *This section of the interview will be based on information revealed in phase 1 survey. Interview questions are unknown at this point as surveys have not yet been completed by participants. Possible questions might be:* "To begin the final part of the interview, I'd like to understand how you feel you can be supported to develop your use of music and your teaching of music in the classroom." You felt that training and support you have received has had [this type of] impact on your ability to use and teach music in your classroom. In what way could this training and support have been designed to have more impact on you in the classroom? ☐ You identified [the following] 'I can' statement as being the most important to you. Why did you

	identify this statement in this way?	☐
	You identified [the following] 'I can' statement as being the least important to you. Why did you identify this statement in this way?	☐
Conclusion	You made [the following comment] at the end of your survey. Is there anything else you would like to add on the topic of music in your classroom?	☐

Phase 4 (post-intervention): participant-specific examples

Ellie

		Discussed
Introduction	Explain to the participant that this is a follow-up interview to re-visit themes discussed during the participant's Phase 2 interview and to explore the participant's experiences of our work together during the classroom intervention.	☐
	Participant Prerogatives	☐
Based on Research Question 3: To what extent does engagement with a skills-based intervention help teachers to develop self-efficacy in their musicality & teaching of music in the special school classroom?	Knowledge of teaching music 1a. You said that you felt your knowledge of teaching music was limited due to a lack of musical learning within your own education, including higher education, and that you were embarrassed by your perceived lack of knowledge. How do you feel about your knowledge of teaching music now? 1b. Can you give me specific examples of this? Intervention as a form of classroom-based support 2a. How did you find the process of working together in the classroom on a long-term basis? 2b. Did you feel it was effective in terms of developing your confidence and skills for teaching music? If so, how? Music education values 3a. You talked a lot in our last interview about how you use singing in lots of different ways in your classroom, such as to signal a change of activity. What are your views on using singing in the classroom now? 3b. Has our work together changed the way in which you use singing, or music in general, in your classroom (as	

	opposed to teaching music)? Can you give me specific examples of this? Specific skills of a music teacher 4a. How important do you feel it is that a teacher is able to play instruments to support the children in a music lesson? 4b. You told me that your main priority in the music classroom was being able to play two or three instruments confidently so you could support the children to do the same. Do you feel you have made any progress in this area of skill? Knowledge and experience base of a music teacher 5a. How important do you think it is for teachers to be able to draw upon a variety of musical ideas and resources when teaching music in the special school? 5b. You had previously said that you wanted to move away from relying on the whiteboard for singing and that you wanted to know more songs or music in your head to be able to draw upon. Do you feel you have achieved this?
Conclusion	Is there anything else you would like to add on the topic of teaching music in your classroom?　　　□

Imogen

	Discussed
Introduction	Explain to the participant that this is a follow-up □ interview to re-visit themes discussed during the participant's Phase 2 interview and to explore the participant's experiences of our work together during the classroom intervention. Participant Prerogatives　　　　　　　　　□
Based on Research Question 3: To what extent does engagement with a skills-based intervention help teachers to develop self-efficacy in their musicality & teaching of music in the	Knowledge of teaching music 1a. How do you feel about your knowledge of teaching music now? 1b. Can you give me specific examples of this? For instance, in your first interview you said you lacked some confidence using instruments in the classroom, including bigger instruments. How do you feel now about using a wider range of instruments?

special school classroom?	<u>Intervention as a form of classroom-based support</u> 2a. How did you find the process of working together in the classroom on a long-term basis? 2b. Did you feel it was effective in terms of developing your confidence and skills for teaching music? If so, how? <u>Music education values</u> 3a. You talked about the importance of music being fun, and it being an area of the curriculum that everyone can access and be part of. What are your views on this now? 3b. You talked about how music can help engage the more complex children you teach. Has our work together changed the way you feel about this? Can you give me specific examples of this? <u>Specific skills of a music teacher</u> 4a. How important do you feel it is for a teacher to be able to challenge musically able children with special needs? 4b. You talked about how you might struggle to build upon and extend musical learning from week to week in the special school. Would you know how to do this now with your current class? <u>Knowledge and experience base of a music teacher</u> 5a. You said you weren't sure how to support children to compose in the classroom. How do you feel about this now? <u>Identity as a teacher (of music)</u> 6a. You also said that you wanted to use music to teach other subjects you were less confident about teaching in the special school, such as maths, and so we focused on for some of your intervention. How do you feel about teaching maths now? 6b. Can you describe how you feel about being a teacher of music now?
Conclusion	Is there anything else you would like to add on the topic of teaching music in your classroom? ☐

Appendix 3.4: Blank musicianship tracker

Classroom musicianship skills: Cycle 1		How are my skills developing? RED/AMBER/GREEN						
	Specific elements of skill	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	
I can identify & teach using the elements of music	I know about: Pitch, Melody, Timbre, Tempo, Pulse & Rhythm							
I can identify music from different historical periods, different musical genres and different countries								
I can sing with confidence	I know how to use diferent songs & at different times of a lesson							
I can play an instrument with confidence								
I can lead and direct a song								
I can lead and direct an instrumental group								
I can improvise musical ideas								
I can compose musical ideas								
I can read a form of musical notation	I can read a graphic score using colours and/or symbols							
I can write down my musical ideas using a form of notation								

Appendix 3.5: Planned focus group questions

Introduction:
The researcher will explain to all participants that she is trying to seek their thoughts and opinions. She will encourage them to share their experiences, as they are all participants in the same intervention study and so their insight is invaluable. She will reiterate that there is no right or wrong answer; their thoughts and opinions are key.

A selection of musical instruments will be available in the focus group room; it will be explained to participants that there is no obligation to use them, they are simply available in case participants want to demonstrate anything related to their musical work in the classroom.

The discussion will start with a light-hearted question, such as 'what did you eat for lunch today?' to try to put participants at ease.

Starter Question:
1. What are your thoughts and feelings towards the work we have been doing together over the past few weeks?

Ideology of music teaching:
2. What's the first thing you think about now when I say 'music' or 'teaching music'?
3. Have your thoughts about the value or importance of music to your pupils changed over the past few weeks?

Perception of music teaching:
4. Do you think your musicality has changed over the past few weeks? If so, how?
5. Have you changed the way you teach music in the past few weeks?
6. Has your confidence of using and teaching music in your classroom changed over the past few weeks? If so, do you think this has any link to any change in your musicality?
(possible use of video stimulus from observed/recorded music lessons during intervention to structure conversation in this section – with permission from individual teacher(s) to share & discuss)

Experience of music teaching:
7. What kinds of musical skills or 'I can' statements would you like to focus upon developing in the next cycle of support?
8. Do you have any musical 'fears' you would like us to address together?
9. Do you feel you had the right kind of support during the intervention? Is there any aspect of this (e.g. training session, team teaching, observed teaching) that could be changed in any way?

Closing Questions:
10. Is there anything else at all you would like to add to our discussion?

11. We will hold another focus group discussion at the end of the next cycle of intervention. With this in mind, is there anything you'd like to change about the format of our focus group discussion?

Appendix 3.6: Blank training observation schedule

Intervention Cycle xxx: Training Session

Intro from researcher	
Music knowledge & skills taught	
Managing the music classroom (ideas modelled)	
Songs & activities modeled	
Instruments (or other resources) used	
Interesting comments or questions *(roughly in order they were said)*	
Comments at end of session about whether aims have been met	

Appendix 3.7a: Blank unstructured observation schedule

Teacher Participant	
Intervention Cycle	1 / 2 / 3
Lesson Number	1 / 2 / 3 / 4 / 5
Number of pupils present	
Focus of lesson	
Location	
Length of lesson	
Role of Researcher	

Initial Notes (first watch back):

Appendix 3.7b: Blank structured observation schedule

Teacher Participant	
Intervention Cycle	1 / 2 / 3
Lesson Number	1 / 2 / 3 / 4 / 5
Number of pupils present	
Focus of lesson	
Location	
Length of lesson	
Role of Researcher	

CONTENT OF MUSIC TEACHING		
Aspects of music teaching observed	**Tick if observed**	**Observation Notes**
Teach using the elements of music		
Teach using music from different historical periods, genres & countries		
Chant or sing confidently with the pupils		
Play an instrument confidently to or with the pupils		
Lead & direct a chant or song		
Lead & direct an instrumental group		
Support pupils to improvise ideas		
Support pupils to compose ideas		
Support pupils to read a form of music notation		
Support pupils to		

write down their musical ideas using a form of music notation		
Other aspects observed:- Use multi-sensory strategies to teach music Use and/or adapt resources appropriately Support pupils to perform		

SIGNS OF CONFIDENCE / SELF-EFFICACY		
Aspects of confident teaching observed	**Tick if observed**	**Observation Notes**
The music classroom is organized & well managed		
The teacher questions the pupils		
The teacher models and/or explains musical concepts to pupils		
The teacher provides feedback & gives praise to pupils		
The teacher keeps pupils engaged, included & on task		

The teacher combines whole group instruction with smaller group work or paired work		263
The teacher adopts a positive approach to behaviour		
Other aspects observed:- Teaching Assistants take part fully The teacher knows when to ask TAs to support pupils The teacher allows pupils to lead at appropriate times The teacher works with and embraces pupil interests Pupil support systems are used		

Appendix 3.8: Examples of temporary constructs

Anna, phase 4 (post-intervention) interview

So a follow-up interview to your first interview where we're gona talk about things you talked about in your last interview and things that we did together in the classroom okay so my first question is how do you feel now about your knowledge of teaching music

I feel a lot more confident with it there are times I do forget what certain things are but I feel more confident in having a go erm

yeah

variety in practice.

like for example at the moment (.) we've we've been doing fast and slow (.) and then dynamics

musical literacy

technical

hmm mmm

gains

yeah [laughter]

language

[laughter]

music's value

and then we've looked at the story map and we've started looking at how we incorporate space type music into the story map that they're doing

fixed beliefs

great

using fast and slow

excellent so you've given me a specific example which was to do with the musical elements

technical language

musical literacy gains

hmm mmm

in your first interview you said you lacked a lot of confidence using instruments in the classroom how do you feel now about using instruments

much much more confident

yeah

I was frightened of using them

yeah

the class music box

Gemma, phase 2 (pre-intervention) interview

[handwritten: music as a tool]

P2: a lot of what we use are routine songs and routine-based so we tend to use familiar things erm yeah everything I use a lot of familiar things it's very rare that well I don't I can't think of a time I've created a song unless I'm singing an instruction

[handwritten: value of music]

R: yeah ok

P2: that's the only time I'd do it

R: so you might be more you might be more spontaneous with your use of music in other lessons

P2: yes

[handwritten: limited practice]

R: but in music lessons it's very much 'we're singing the songs that we know'

P2: yeah we're doing what, we have a routine, we're singing 'hello' with body action, we're gona focus on whatever skill we're doing using songs that are either familiar or have familiar tunes

R: yeah

[handwritten: fear / loss of control]

P2: yeah and then we'll have a play on an instrument where we all do a solo then we'll sing the finished song and we're gone

[handwritten: limited practice]

[handwritten: no challenge for pupils]

R: ok

P2: so it has a very set structure just with that those middle two sections will change for what skill we're doing but they'll still be familiar

R: when you talk about what skill you're doing is it a musical skill that you are...

P2: yes

R: ok

P2: so if we're doing loud and quiet or fast and slow but they'll still be familiar songs like 'The Music Man' or 'We play and we play and we stop' or

R: yeah do you feel your children respond well to the familiar songs?

P2: yes erm although it possibly doesn't stretch them enough

[handwritten: limited practice]

R: ok why do you think that?

[handwritten: lack of challenge]

P2: erm I have a child in my class at the moment who is more musical than I am [laughter]

R: [laugher]

[handwritten: no pride in professional self / self ...]

[handwritten: deflection]

[handwritten: low self-esteem]

Gemma, phase 4 (post-intervention) interview

R: okay so it's a follow-up interview based on what we talked about in your previous interview (.) talk about anything you want no wrong answer any questions just ask okay

G: right NOT CODED

R: so when I interviewed you first time round you said to me that you felt your confidence to teach music was low when you started teaching a few years ago

G: yeah NOT CODED

R: how do you feel about your knowledge of teaching music now

[handwritten margin notes: dialogue, value el music, enjoyment, collaboration, collaboration, relief]

G: erm I feel like this process has genuinely really helped it's been lovely kind of getting some new ideas it's been fun getting to team teach and just talk about music instead of (.) not I think as a school we're pretty good at talking about you know a range of subjects (.) we do talk everyone talks about literacy and maths a lot and it's been really nice having someone to just get music ideas and see you do them with my class and (.) yeah I'm feeling a lot better about teaching music

R: okay

G: we did it this afternoon and the children really enjoy it in class as well

R: yeah

G: yeah and I think that's they definitely didn't enjoy it erm when I wasn't feeling as good about it (.)

R: yeah

G: and I think now because I'm quite happy to (.) go into 'it's music time' they erm it seems as a class it's a lesson we enjoy

R: maybe cos you're more confident teaching it

G: yeah NOT CODED AS RESEARCHER'S IDEA

R: that that maybe shows to them

G: yeah NOT CODED AS RESEARCHER'S IDEA

R: that you're leading it and you you've got lots of ideas and (.) erm so any in terms of your knowledge of teaching music teaching it as a subject

G: hmm mmm

1

Appendix 3.9: Focused codes and emerging themes across data sets
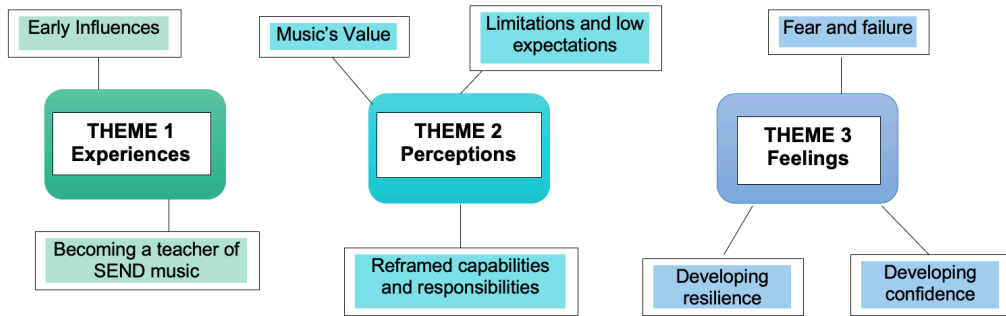
Anna / Ellie / Gemma / Imogen

Phase of data collection	Extracts from data	Focused code	Emerging theme(s) + likely overarching theme *(experiences, perceptions or feelings)*
Phase 2 Pre-intervention interviews	music "was a very separate lesson and it was basically seen as a mess about lesson…I do remember doing bits with that but generally it was just seen as a time for the lads at the back to mess about and so nothing really serious" "I did yes [enjoy my music lessons] erm I only took them year 7 and 8 cos I was told then that my attainment wasn't high enough to carry them on to year 9… and we were quite a performance driven school so if you weren't attaining high enough in a subject you didn't get to do it past year 8… but I did enjoy it I obviously just wasn't one of the gifted ones" "I didn't enjoy music lessons at school I don't really know why but I remember finding them not very exciting…I felt a bit overlooked"	Has problematic school memories	**School hazards / influences (EXPERIENCES)**
	music "was just seen as an add-on to the literacy and maths" during teacher training	Recalls a lack of professional training	**Professional hazards / influences (EXPERIENCES)**

	"I think I remember one [music] lesson [in ITT]… we didn't have a lot of university based time… so it was literally a whistle stop tour to music in one lesson…the same as other [foundation] subjects as well" "I honestly feel that throughout my [teacher] training it [music] wasn't seen as one of the important subjects" "I've not seen a lot [of music]…to develop my own way of doing things" "it was ok to use music…in early years and in lower school it was seen as 'that's ok to do'. Further up school it had to be more structured and more formal" didn't get to teach music because of "the restrictions of the curriculum… and also expectations of some schools"	Recalls professional restrictions / restrictive expectations	**Professional hazards / influences (EXPERIENCES)**
	"I didn't know how to take it any further I didn't know what to do next" "I felt that there was perhaps a lot more potential from what I actually did" the use of familiar and routine songs works well for the pupils but "possibly doesn't stretch them enough"	Unable to challenge pupils	**Guilt / Failure (FEELINGS)**
Phase 4	"I'm enjoying teaching it how it's been done (pause) at	Enjoys teaching music now	**Professional gains: enjoyment**

Post-intervention interviews	the moment you know the work that we've done together it was quite exciting and it sort of (pause) erm just struck something"		(FEELINGS)
	"it was good fun [laughter] we had some interesting sessions"		
	It was an opportunity "to be able to bounce ideas off people as well and to get ideas"	Is open to sharing ideas / has ideas	**Collaboration / trust (EXPERIENCES)** **Or** **Confidence / trust (FEELINGS)**
	"the way that we team teached together you know erm I stepped in more and more I think that that that builds your confidence"		
	"you can see that erm its ok if things don't happen… erm as they are on the paper er the first even few times (.) I think initially if you hadn't have been I'd have probably beaten myself up about it…but it's ok"		
	"it's been lovely kind of getting some new ideas"		
	"it's been fun getting to team teach and just talk about music…it's been really nice having someone to just get music ideas and see you do them with my class"		
	"you go to training and you see things and people tell you ideas but it's been nice seeing you do it with my class before I do it… cos you're seeing it in practice then and how it works with the children you're teaching"		
	"I'd say that's a huge skill		

	[managing instruments in the classroom] that I've learnt through watching you and having a go myself…that makes my lessons better" "now that I understand these terms and things like that I feel like I can more confidently speak and direct my staff as well"		
	"the fact that pupil I1 was singing when I just thought he was just vocalizing… so things like that and noticing now more" with music "you'd think 'ar they'll not be able to do high and low they won't be able to do fast and slow' but actually they can"	Has higher expectations of pils	**Reframed expectations (PERCEPTIONS)**

Appendix 3.10: Final coding tree

Early Influences

THEME 1
Experiences

Becoming a teacher of
SEND music

Music's Value

Limitations and low
expectations

THEME 2
Perceptions

Reframed capabilities
and responsibilities

Fear and failure

THEME 3
Feelings

Developing
resilience

Developing
confidence

Appendix 3.11: Example of coding of qualitative survey data

Section 2: Question 7 'Why use certain music activities most frequently?'

Question response rate = 18/20 (90%)

Pupil-based responses:- (21)
PRA = pupils respond to this activity (3)
ADBRS = activity develops broad range of skills (1)
APLOS = activity promotes learning in other subjects (1)
APAA = all pupils can access this activity (5)
APSR = activity promotes structure and routine (2)
APRHC = activity promotes relaxation & helps to calm (1)
ACRL = activity gets children ready to learn (2)
AHCEL = activity helps children engage in learning (2)
APMD = activity promotes musical development (1)
APMS = activity promotes memory skills (1)
AEBC = activity is embedded within the broader curriculum (1)
APPB = activity promotes positive behaviours (1)

Teacher-based responses:- (16)
AANS = activity is accessible for non-specialist (4)
AEA = activity is easy to adapt (1)
AQSU = activity is quickly set-up (2)
AER = activity is easy to resource (3)
AMCD = activity I am most confident to deliver (4)
AI = activity is inexpensive (1)
AFWT = activity is flexible within timetable (1)

Participant Code	Response to Question	Code applied + any quotable comments
Ellie	LISTEN TO/APPRAISE MUSIC It is what I feel more confident in using	AMCD
Imogen	LISTENING TO/APPRAISE MUSIC + PERF USING VOICES/SONG + PERF USING INSTR:- It gets the children engaged! They join in and 'conform' better.	AHCEL APPB
Gemma	PERF USING VOICES/SONG:- Because it fits into timetable constraints (what I 'should' be teaching at that time)	AFWT

	easily.	
Anna	LISTENING TO/APPRAISE MUSIC + PERF USING VOICES/SONG:-	AMCD
	I feel more confident singing.	
Other 1	PERF USING VOICES/SONG/INSTR	PRA
		ADBRS
	With time and experience becomes evident pupils respond to it – develop broad range of related skills	
Other 2	PERF USING VOICES/SONG	APLOS
	It is relevant to the teaching of literacy, which is my main focus	
Other 3	LISTEN TO/APPRAISE MUSIC	AANS
	I can do it without specific music skills	
Other 4	PERF USING VOICES/SONG + COMP USING VOICES/SONG:-	AEA
		AQSU
		AER
	Using voice – easy to adapt, can be quick (doesn't always require resources). Instant access. Can be easily tailored to activity/situation/individual.	APAA
Other 5	DIDN'T ANSWER AS PUT N/A	
Other 6	LIST TO/APP MUSIC + PERF USING VOICES/SONG + COMP USING VOICES/SONG	PRA
		APRHC
		APSR
		ACRL
	Children are responsive to it either to calm at the end of the day or help them feel alert and motivated throughout the day	
Other 7	LIST TO/APPRAISE MUSIC + MUSIC TECH:-	ACRL
		AHCEL
	Initially engages 6-7/8 children in the class to get their focus	
Other 8	LIST TO/APPRAISE MUSIC + PERF USING VOICES/SONG + PERF USING INSTR:-	APMD
		APAA
		PRA
	For the pupils I teach, I feel that using voices and instruments to perform has most impact on their musical development. These are the most accessible and gain [the] greatest responses.	
Other 9	PERF USING VOICES/SONG:-	APAA
		AANS
	It's easy to access (singing) everyone including adults and children can have a go	

	regardless of singing ability.	
Other 10	PERF USING VOICES/SONG:- It is the one I feel most confident with	AMCD
Other 11	PERF USING VOICES/SONG:- No need for resources and it can be incorporated into any part of the day	AER APSR
Other 12	LIST TO/APPRAISE MUSIC + MUSIC TECH:- Help children remember things	APMS
Other 13	DIDN'T ANSWER PROPERLY	
Other 14	PERF USING VOICES/SONG + PERF USING INSTR:- As it is embedded within the early years curriculum.	AEBC
Other 15	LIST TO/APPRAISE MUSIC:- It is readily to hand (voices), it's easy to learn (a little ditty for different parts of the day) and I feel confident with it/can do it	AQSU AER AMCD APAA AANS
Other 16	PERF USING INSTR:- Singing – free, everyone can do it	AI APAA AANS

Appendix 3.12: Coding rules

Coding rules applied to lesson observations between two Early Years classes (Ellie & Gemma)

1. **use of 'back in the box' song** was always coded as:-

   organised lesson
   use of song <u>or</u> direct a song (dependent on context)
   positive behaviour <u>or</u> lesson focus/engagement (dependent on context)

2. **use of 'who is coming to sit on a chair' song** was always coded as:-

   use of song <u>or</u> direct a song (depended on context)
   positive behaviour <u>or</u> lesson focus/engagement (dependent on context)

3. **saying 'bye bye' to something e.g. a toy** was always coded as:-

   pupil support systems

4. **chanting in the musical story e.g. beep beep beep** was always coded as:-

   models musical concept

5. **use of exaggerated language like 'ooh' and 'woo'** was always coded as:-

   keeps pupils on task

6. **use of 'are we ready…'** was always coded as:-

   keeps pupils on task/engaged

Appendix 3.13: Extract from ethics approval

University of Reading
Institute of Education
Ethical Approval Form A (version May 2015)

University of Reading

Tick one:
    Staff project _____   PhD _____   EdD ✓

Name of applicant (s): Amy Nokes

Title of project: Evaluating the impact of a skills-based intervention on the readiness of teachers in special schools to use and teach music

Name of supervisors (for student projects): Dr Rebecca Berkley & Professor Cathy Tissot

Please complete the form below including relevant sections overleaf.

	YES	NO	
Have you prepared an Information Sheet for participants and/or their parents/carers that:			
a) explains the purpose(s) of the project	✓		
b) explains how they have been selected as potential participants	✓		
c) gives a full, fair and clear account of what will be asked of them and how the information that they provide will be used	✓		
d) makes clear that participation in the project is voluntary	✓		
e) explains the arrangements to allow participants to withdraw at any stage if they wish	✓		
f) explains the arrangements to ensure the confidentiality of any material collected during the project, including secure arrangements for its storage, retention and disposal	✓		
g) explains the arrangements for publishing the research results and, if confidentiality might be affected, for obtaining written consent for this	✓		
h) explains the arrangements for providing participants with the research results if they wish to have them	✓		
i) gives the name and designation of the member of staff with responsibility for the project together with contact details, including email . If any of the project investigators are students at the IoE, then this information must be included and their name provided	✓		
k) explains, where applicable, the arrangements for expenses and other payments to be made to the participants	N/A	N/A	
j) includes a standard statement indicating the process of ethical review at the University undergone by the project, as follows: 'This project has been reviewed following the procedures of the University Research Ethics Committee and has been given a favourable ethical opinion for conduct'.	✓		
k) includes a standard statement regarding insurance: "The University has the appropriate insurances in place. Full details are available on request".	✓		
Please answer the following questions			
1) Will you provide participants involved in your research with all the information necessary to ensure that they are fully informed and not in any way deceived or misled as to the purpose(s) and nature of the research? (Please use the subheadings used in the example information sheets on blackboard to ensure this).	✓		
2) Will you seek written or other formal consent from all participants, if they are able to provide it, in addition to (1)?	✓		
3) Is there any risk that participants may experience physical or psychological distress in taking part in your research?		✓	
4) Have you taken the online training modules in data protection and information security (which can be found here: http://www.reading.ac.uk/internal/imps/Staffpages/imps-training.aspx)?	✓		
5) Have you read the Health and Safety booklet (available on Blackboard) and completed a Risk Assessment Form to be included with this ethics application?	✓		
6) Does your research comply with the University's Code of Good Practice in Research?	✓		
	YES	NO	N.A.
7) If your research is taking place in a school, have you prepared an information sheet and consent form to gain the permission in writing of the head teacher or other relevant supervisory professional?	✓		
8) Has the data collector obtained satisfactory DBS clearance?	✓		
9) If your research involves working with children under the age of 16 (or those whose special educational needs mean they are unable to give informed consent), have you prepared an information sheet and consent form for parents/carers to seek permission in writing, or to give parents/carers the opportunity to decline consent?	✓		

Appendix 3.14: Extracts from consent forms

Headteacher consent form

University of Reading

Principal Researcher: Amy Nokes
Phone: ▧▧▧▧

Supervisor: Dr Rebecca Berkley
Phone: 0118 378 2694
Email: r.m.berkley@reading.ac.uk

Head Teacher Information Sheet

Research Project: Evaluating the impact of a skills-based intervention on the readiness of teachers in special schools to use and teach music

Project Team Members: Amy Nokes (Rebecca Berkley & Cathy Tissot – supervisors)

Dear Head Teacher

I am writing to invite your school to take part in a research study about how teachers use and teach music in special schools.

What is the study?

This study aims to investigate how teachers in special schools, who are not music specialist teachers, can be supported to develop their musicianship skills, with the aim of facilitating them to teach music with more confidence in their classrooms. It hopes to make recommendations to the music education sector, the special school sector and the broader education sector regarding this.

Why has this school been chosen to take part?

Your school is being invited to take part primarily because, as you will be aware, the principal researcher is currently employed at your school. This will make the research more feasible and should have less impact on the participants involved in the main phases of data collection, as the principal researcher will be readily on hand to support them with any questions or needs they may have.

Does the school have to take part?

It is entirely up to you whether you give permission for the school to participate. You may also withdraw your consent to participate at any time during the project, without any repercussions to you, by contacting the principal researcher, Amy Nokes, in one of the following ways:

Telephone: ▧▧▧▧   Email: ▧▧▧▧▧▧

What will happen if the school takes part?

With your agreement, participation would involve the principal researcher working alongside teachers in your school for approximately twelve months. This work would be divided into four phases.

The first phase will involve surveying as many teachers as possible in your school about their views of music in general and their thoughts with regards to music and its place in special schools. This will involve handing out a hard-copy of the survey to each teacher. The researcher will need these surveys handed back within two weeks of distribution.

Phases two to four will involve working closely alongside up to four teachers for approximately eight months as part of what is known as an 'intervention study'. These teachers will be recruited from the sample of teachers who took part in the phase one survey; there will be a question at the end of the survey for all participants to indicate whether they would be willing to take part in the intervention study. They will be asked to do different things as a means of collecting data throughout these eight months.

During the second phase, they will be asked, individually, to complete a timeline outlining their music education experiences to date. They will then be interviewed individually about some of these

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Teacher consent form (phase 1 involvement only)

University of Reading

Principal Researcher: Amy Nokes
Phone: ▨▨▨▨▨
Email: ▨▨▨▨▨▨▨

Supervisor: Dr Rebecca Berkley
Phone: 0118 378 2694
Email: r.m.berkley@reading.ac.uk

<u>Teacher information sheet: Phase 1 involvement only</u>

Research Project: Evaluating the impact of a skills-based intervention on the readiness of teachers in special schools to use and teach music

Project Team Members: Amy Nokes (Rebecca Berkley & Cathy Tissot – supervisors)

I am writing to invite you to take part in a research study about how teachers use and teach music in special schools.

What is the study?

This study aims to investigate how teachers in special schools, who are not music specialist teachers, can be supported to develop their musicianship skills, with the aim of facilitating them to teach music with more confidence in their classrooms. It hopes to make recommendations to the music education sector, the special school sector and the broader education sector regarding this.

Why have you been chosen to take part?

You have been invited to take part in the project because you are a teacher working in a special school.

Does I have to take part?

It is entirely up to you whether you give your permission to participate. You may also withdraw your consent to participate at any time during the project, without any repercussions to you, by contacting the principal researcher, Amy Nokes, in the following way:

Email: ▨▨▨▨▨▨▨▨▨

What will happen if I take part?

With your agreement, participation would involve completing a survey about your views of music in general and your thoughts with regards to music and its place in special schools. This will involve handing out a hard-copy of the survey to you, for you to complete in your own time. The researcher will need these surveys handed back within two weeks of distribution.

What are the risks and benefits of taking part?

The information given by you in the study will remain confidential and will only be seen by the research team listed at the start of this letter. Neither you, the children or the school will be identifiable in any published report resulting from the study. Information about you and your participation in the study will not be shared with the school. Participants in similar studies have found it interesting to take part. I anticipate that the findings of the study will be useful for both teacher educators, in terms of contributing to a body of knowledge about how teachers develop skills and knowledge, and to teachers in special schools who are not music specialists, in terms of how they may work to develop their musical skills.

Teacher consent form (full involvement)

University of Reading

Principal Researcher: Amy Nokes
Phone: ▨▨▨▨▨▨
Email: ▨▨▨▨▨▨▨▨

Supervisor: Dr Rebecca Berkley
Phone: 0118 378 2694
Email: r.m.berkley@reading.ac.uk

Teacher information sheet: Full Intervention Involvement

Research Project: Evaluating the impact of a skills-based intervention on the readiness of teachers in special schools to use and teach music

Project Team Members: Amy Nokes (Rebecca Berkley & Cathy Tissot – supervisors)

I am writing to invite you to take part in a research study about how teachers use and teach music in special schools.

What is the study?

This study aims to investigate how teachers in special schools, who are not music specialist teachers, can be supported to develop their musicianship skills, with the aim of facilitating them to teach music with more confidence in their classrooms. It hopes to make recommendations to the music education sector, the special school sector and the broader education sector regarding this.

Why have you been chosen to take part?

You have been invited to take part in the project because you are a teacher working in a special school. You are also not a trained music teacher or musician.

Does I have to take part?

It is entirely up to you whether you give your permission to participate. You may also withdraw your consent to participate at any time during the project, without any repercussions to you, by contacting the principal researcher, Amy Nokes, in the following way:

Email: ▨▨▨▨▨▨▨▨▨▨

What will happen if I take part?

With your agreement, participation will involve the principal researcher working alongside you – and up to three other teachers similar to you - in your school for approximately twelve months. You will be referred to as participants. This work will be divided into four phases.

The first phase will involve surveying as many teachers as possible in your school, including yourself, about their views of music in general and their thoughts with regards to music and its place in special schools. This will involve handing out a hard-copy of the survey to each teacher. The researcher will need these surveys handed back within two weeks of distribution.

Phases two to four will involve working closely alongside you and up to three other participants in your school for approximately eight months as part of what is known as an 'intervention study'. You will be asked to do different things as a means of collecting data throughout these eight months.

During the second phase, you will be asked, individually, to complete a timeline outlining your music education experiences to date. You will then be interviewed individually about some of these experiences, as well as your current views and perceptions of using and teaching music in your classroom. These interviews will be audio recorded and transcribed, once consent has been sought and confirmed from yourself.

Parent consent form

University of Reading

Principal Researcher: Amy Nokes
Phone: ▨▨▨▨▨
Email: ▨▨▨▨▨▨▨▨

Supervisor: Dr Rebecca Berkley
Phone: 0118 378 2694
Email: r.m.berkley@reading.ac.uk

Parent/carer information sheet

Research Project: Evaluating the impact of a skills-based intervention on the readiness of teachers in special schools to use and teach music

Project Team Members: Amy Nokes (Rebecca Berkley & Cathy Tissot – supervisors)

We would like to invite your child to take part in a research study about how teachers use and teach music in special schools.

What is the study?
The study is being conducted at the University of Reading as part of an EdD thesis. The school's Deputy Headteacher, Amy Nokes, is the principal researcher. The study aims to investigate how teachers in special schools, who are not music specialist teachers, can be supported to develop their musicianship skills, with the aim of facilitating them to teach music with more confidence in their classrooms. It hopes to make recommendations to the music education sector, the special school sector and the broader education sector regarding this.

Why has my child been chosen to take part?
Your child has been invited to take part in the project because they are a pupil at the special school in which the principal researcher is the Deputy Headteacher.

Does my child have to take part?
It is entirely up to you whether your child participates. You may also withdraw your consent to participation at any time during the project, without any repercussions to you or your child, by contacting the principal researcher, Amy Nokes, in the following way:

Email: ▨▨▨▨▨▨▨▨▨

What will happen if my child takes part?
Your child, personally, will not have to do anything. Your child's teacher will be asked to take part in what is called an 'intervention study' with the principal researcher. As part of this, some music lessons will be videoed and there is a possibility that your son/daughter will appear in these videos. These classroom video recordings will be used to structure reflective conversations between the principal researcher and the teachers only; they will not used in any other way and will not be watched by anyone other than the principal researcher, her supervisors and the teachers themselves.

What are the risks and benefits of taking part?
Neither you, your child, nor the school will be identifiable in any published report resulting from the study. We anticipate that the findings of the study will be useful for both teacher educators, in terms of contributing to a body of knowledge about how teachers develop skills and knowledge, and to teachers in special schools who are not music specialists, in terms of how they may work to develop their musical skills.

What will happen to the data?
Any data collected will be held in strict confidence and no real names will be used in this study or in any subsequent publications. The records of this study will be kept private. No identifiers linking you, your child or the school to the study will be included in any sort of report that might be published. Research records will be stored securely in a locked filing cabinet and on a password-protected computer and only the research team will have access to the records. In line with the University's policy on the management of research data, anonymised data gathered in this research may be preserved and made publicly available for others to consult and re-use. The data will be destroyed securely once the findings of the study are written up, after five years. The results of the study may be presented at national and international conferences, and in written reports and articles.

Who has reviewed the study?