An autoethnographic account of a piano teacher's professional growth in the piano lab: Improving beginner pianists' musicianship by teaching them to play by ear

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I, Gemma O'Herlihy confirm that the work presented in this thesis is my own work. Where information has been derived from other sources, I confirm that this has been indicated in the thesis.

Abstract

This study discusses the researcher's professional growth and the challenges she faced when deviating from teaching how she had been taught. Difficulties and successes arose as she attempted to implement strategies of playing by ear, rather than continuing an exclusive emphasis on reading notation in instrumental teaching. Playing by ear has been identified extensively in recent music education scholarship as important for supporting young children's musicianship, aural development, motivation, and engagement (e.g., Baker & Green, 2013; McPherson, 1993). This thesis examines the researcher's development as a piano teacher, charting the adoption of this strategy through an autoethnographic research approach. It does so in relation to cycles of action research she implemented with groups of beginner pianists in a piano lab at a music school in Ireland. It also examines the impacts for beginner pianists. Four groups of five children aged 6–10 years participated from September 2015 to May 2018. Data were collected through focus group interviews with pupils and parents, videos of the teaching, and teacher-reflective field notes. Key findings of the autoethnographic work relate to how life events, childhood musical experiences, pedagogical training, and teaching career shaped the perspectives she brought to bear in her changing practice. Parents also became involved and musically educated. They contributed to the research while supporting their children's progress. The research illustrates how group dynamics, parental involvement, musicianship and differentiation shift and practice changes in response to teachers having to negotiate situations in the piano lab. Playing by ear contributed positively over time to these youngsters' musicianship, which might prove useful in later life for retaining their musical enjoyment. Whilst the sample was limited, these findings contribute to an improved understanding of how beginner pianists might be supported more effectively in their earlier years of music studies.

Keywords: Music and autoethnography; Teacher development; Playing by ear; Musical learning; Instrumental tuition; Group piano teacher

Impact Statement

The thesis places the piano lab as playing a vital role in broadening students' musicianship, grounded in evidence. Amending the piano lab's workings to prime it for the 21st century would respond to technological and societal shifts, occurring ever increasingly. The research supports playing by ear as an essential part of piano learning. Rather than starting with pupils aged 9–14, it recommends piano lab as inclusive of a younger cohort of seven-year-old beginners. It calls for adjusting the curriculum for a wider range of musical genres of piano repertoire. Prioritising the kinds of music children enjoy would support diverse ability and commitment levels. The account of a teacher researching her classroom urges the professional development of piano teachers in learning how to teach children to play by ear using an aural intervention. It would aid teacher agency and facilitate collaborating across the piano labs.

The research benefits professional practice whereby disseminated outputs to external stakeholders at national conferences might have an enduring impact on enhancing music education in conservatoires. A piano lab model could impact other music institutes in Ireland that specialise in performance. It might also benefit well beyond music schools to mainstream educators for teaching music in group settings and in primary schools. The thesis contributes to expanding the literature on group piano teaching and learning and provides a rich paradigm in the study of a teacher's pedagogical growth.

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ABBREVIATIONS

ABRSM   Associated Board of the Royal Schools of Music

AEC   European Association of Conservatoires

BERA   British Educational Research Association

BPS   British Psychological Society

BSA   British Sociological Association

CIT   Cork Institute of Technology

CSM   Cork School of Music

EPTA   European Piano Teachers' Association

MTU   Munster Technological University

NCCA   National Council for Curriculum and Assessment

PGCE   Postgraduate Certificate of Education

RIAM   The Royal Irish Academy of Music

Contents

SECTION I: CONTEXTS AND FRAMEWORKS

CHAPTER 1: A PIANO TEACHER'S AUTOBIOGRAPHY

1.1 An autoethnographic, autobiographical research project

1.1.1 Contexts of the research

First, I present the physical and institutional site of my research - the piano lab and how it works. Second, to understand my practice, and the research that enables me to provide an adequate account of that practice, I present some of my own history. This involves my formation as a musician and a teacher, and what prompted me to explore an approach to music pedagogy that was radically different from the one I had experienced. The first chapter, therefore, locates the research in the context of my autobiography. It traces my history and critical incidents of my lifelong journey, including my childhood memories and training in performance and pedagogy. It explores the reasons aural teaching and learning became important to me. I use the terms "playing by ear," and "ear-playing" to mean reproducing music on the piano in the absence of music notation by using listening and aural skills. This includes playing music in the original keys or transposed to easier keys (McPherson, 1995b).

1.1.2 The piano lab research site

My job as a teacher at the Munster Technological University Cork School of Music (MTU CSM) involved teaching groups in the piano lab. I use the term "piano lab" as an environment where a small group of pupils learn keyboard skills together, with each pupil playing individually at one of seven digital pianos. Digital piano laboratories provide students with their own piano for piano learning (Fisher, 2010).

Group learning is rarely an option for pianists (Cathcart, 2013). In my experience, piano teachers prioritise students' assessed repertoire and technique, within one-to-one lessons, which often results in less time for sightreading. By contrast, a music school's piano lab is an appropriate resource for allocating extra time to support students' sightreading. Teachers may expect students to work on it themselves. Without constant supervision, however, students often neglect it (Pike, 2017).

According to Fisher (2010) and Pike (2017), besides supporting sightreading, a piano lab course supports sightreading and allows for socialising and group learning.

The CSM piano lab pre-existed my ear-playing approach. Established in 1999 to improve Grade 1–5 piano students' sightreading, piano lab lessons are adjunct to pupils' one-to-one studio piano lessons with their piano teacher who teaches the classical repertoire and technique. By September 2015, the piano lab was confined to Grade 2–4 students because of cutbacks. My research project brought group piano learning to a small cohort of beginner pianists. The music school resists economies of scale to safeguard individual instrumental tuition, which is expensive. Group piano learning is therefore publicised as a support for pupils' individual piano lessons, rather than a substitute.

To describe the piano lab setting, it is necessary to identify differences between piano lab group learning in a music school versus other forms of group learning in primary schools. For example, piano pupils sit behind pianos honing their ear-playing and music reading skills (Sawyer, 2007; Small & Walser, 1996), whereas primary school classrooms are populated by many other children who sit at desks. Piano lab pupils learn music by listening, singing, reading notation, piano playing and engaging in brief dialogue (Pike, 2017). Group work in primary schools involves pupils engaging in discussion and working collaboratively as co-learners. Daily practices in primary school classrooms might comprise teachers' use of more peer-led groups. Playing by ear in involves much teacher-led work compared with the alternative approach of only focusing on learning to read music. In an aural approach, the teacher has to demonstrate new songs for students to imitate. Once group members have learnt a song, they may divide into pairs or trios. Piano lab pupils come from different parts of the city and different schools, thus are less familiar with their peers.

"All groups are embedded in a social and environmental context … the physical environment affects a group's dynamics" (Forsyth, 2019, p. 19). The piano lab used for the research project was set up in two rows and outfitted with seven Roland digital pianos plugged into sockets on the walls. All the pianos had touch-sensitive keys that enabled expressive nuances through pianists' touch, "which are vital ingredients of sensitive musicianship" (Salaman, 1997, p. 148). It also included a whiteboard, a computer, two speakers and seven headphones (Figure 1).

Figure 1: Teacher's limited view in traditional rows

To control the soundtracks, the computer was close to the teacher's piano.

Figure 2: Pupils' limited view in traditional rows

Sometimes digital pianos come with a variety of orchestral timbres, textures and sounds for students to explore (e.g., celesta for Hedwig's theme, as observed in Chapter 4). The teacher observes and engages with students individually and as a group. Pike (2013) suggests a piano lab group size of five to seven students works best. Fisher (2010) maintains the shorter the lesson, the fewer students ought to be in a group. "Smaller groups require less complex cooperative and social skills in order to optimally function" (p. 57).

The present study addresses the lack of research dedicated to issues involved in group piano teaching (Duke & Byo, 2012; Koopman, 2002). As a practitioner researcher, I was committed to developing a collaborative approach to professional development. Therefore, I organised focus group interviews with my piano teaching colleagues to gain background information on their beliefs, values, and perspectives on the challenges associated with developing musicianship amongst beginner pianists and how to address them, which I will discuss in Chapter 3. Placing the teachers' focus group interviews at the start of the project contextualised them within piano teaching at a music school. The discussions helped me adapt, shape, and develop an intervention for teaching beginners ear-playing, suitable for the local piano lab context.

1.1.3 Biographical-interpretive approach

Teachers' practices should be understood within the context of their holistic experiences and lifetime developmental learning (Barrett & Staffer, 2012; Elbaz, 1981; Kelchtermans, 1993; Olson, 1992; Sikes & Aspinwall, 1992). Formative experiences as learners from childhood biographical journeys influence their pedagogical approaches and values. Understanding teachers in the wider context of their lives includes events outside their work settings, which may significantly affect their practice. For example, parenting teachers see their child's first-hand encounters of everyday life in school, which might unveil issues in teachers' own practice that they had been unaware of (Kelchtermans, 1993). In the autobiography I present later in the chapter, I uncover how life events, such as my first childhood performance, pedagogical training, and teaching career, have shaped the perspectives that I have today and affected my research project.

Analysing biography reveals how people adapt "their sense of past, present and future and their social relations and thus respond to sociocultural and economic changes" (Roberts, 2002, p. 21). For example, Coolahan's (1981) reference book on the evolution of the Irish education system showed that the enrolment of students in post-primary schooling had been growing steadily in the 1960s. Previously, it had been a barrier for "children of poor parents wishing to participate in second- and third-level education" (p. 194). In 1966, it increased exponentially after the declaration of free post-primary education, which paved the way for more equality of educational opportunities. The numbers of Irish university students also surged because of a governmental grant scheme in 1967. It had radical benefits for the developing economy, social mobility, and cultural change; it enabled me to pursue music studies abroad.

Critical incidents are turning points that produce new responses and identity changes at certain times in individuals' lives (Burnard, 2004; 2012; Solas, 1992; Sikes, Measor & Woods, 2001; Kompf, 1993). I use them in my research to reflect on episodes of my lifelong journey, and the processes involved in broadening keyboards skills for young pianists. Autobiography provides a deeper understanding of these stages in a teacher's life that might include past successes, mistakes, future ambitions, and concerns (Shah, 2006). Fischer-Rosenthal (2000) suggests that biographical structuring mends lives and helps us to manage complicated social order via instigating self-reflexive operations before and after experiences. "We may not know who we are and what is happening to us," but if we narrate how we developed into "who we are, then we can integrate ourselves, because we can present ourselves as both consistent *and* contingent" (p. 115). Self-expressive narration looks back at what we experienced, enables us to recall, interpret and re-order past events, and looks forward to what we hope to achieve.

To understand teachers' professional practice, one needs to understand how teachers' identities are formed and developed in the context of classroom teaching (Ball & Goodson, 1985). There may be, for example, changes in teachers' behaviour because of decisions made by management to cut public expenditure (Kelchtermans, 1993). Changes in the trajectory of a career because of personal events might also affect teachers' lives, for example birth, ill health, divorce, or becoming a carer (Sikes et al., 2001). The death of a teacher's spouse or child may

contribute profound effects, such as loneliness, restlessness, difficulties coping with work, and changed priorities. This could affect what and how s/he teaches and responds to students (Polkinghorne, 1995).

Autobiography enables teachers to recount and understand unique events and solve problems. It helps them make sense of how they adapt their practice according to the way they interpret their experiences (Clandinin & Connelly, 2000; Polkinghorne, 1988, 1995; Solas, 1992). Although textual stories cannot represent the story-giver's entire experience, "emancipatory educational storysharing" can bring clarity and make one more aware of others and oneself (Barone, 1995, p. 73). Autobiography reforms education and facilitates educational policy based on teachers' and students' experiences (Solas, 1992). A biographical-interpretive approach uncovers dormant layers of meaning. When the hidden issues that were undeveloped while taking field-notes are reflected upon, questions resurface, and new queries arise through the writing process (Brown & Jones, 2001). When teachers are placed at the centre of the narrative, autobiography can access the deep-rooted nature of their history (Casey, 1992; Chamberlayne et al., 2000).

Beth Ann Miller, for example, used autobiography to examine her endeavours to integrate more meaningful learning through composition during weekly piano lessons of her students. She came to believe during her professional development that constructed knowledge is more relevant and enduring than imposing her knowledge on students (Miller, 2012). Her narrative enquiry gave an account of her teaching and her students' learning. She interviewed her piano students about their composing experiences in piano lessons during the year of the enquiry. Daily field notes encapsulated students' core issues with composing, their physical and emotional circumstances, and issues such as parental involvement. Miller reflexively interrogated her developing pedagogy, lesson content, relational interactions, incidents, viewpoints, and response. She noticed transformed patterns as her students matured over the years and became "piano playing musicians" (p. 325). Her enquiry reconfirmed that, when teachers teach and enable students to compose their own music, they become more conversant and enriched in piano lessons.

1.1.4 Rationale for autobiography

In a series of episodes, I look closely at the different roles that I occupied. I examine the challenges at various moments in my story, and how they helped to shape my current views about what an appropriate music pedagogy could look like. I question my values and how my values were formed. This is important for me now to continue improving my practice by developing broader musicianship skills for the benefit of beginner pianists.

My mother instilled in me a desire for a concert career which I enjoyed pursuing. Indeed, performance is acknowledged as "the primary goal of piano teaching … in the twentieth century" (Uszler, 1992, p. 548). My transition from student to performer to teacher, which suited me, is not necessarily appropriate for my students. Aims and outcomes should consider that many children do not want to become performers (Hallam, 2012). As noted by Reimer, "talent must be selectively nurtured without negating the aspiration of 'music for all'" (Heneghan, 2001, p. 84).

There are wide educational benefits of studying "the heritage of classical music" (Gaunt, 2007, p. 220). I questioned, however, whether prioritising technique, sightreading and the "warhorses of the Classical repertory" (Regelski, 2007) should be the only skills offered. Other approaches that use diverse genres and skill sets might be more workable for "ordinary people" (p. 40). Skills such as accompaniment, playing by ear, and improvisation might be more suited to develop social pianists – learners who are not striving for the classical performer's career (p. 35). Azzara (2002a) defines improvising as instinctively expressing music within established guidelines and interacting in musical dialogue. Freer (2010), however, views the definition of improvisation within such guidelines as problematic because of the imprecision of music terminology about improvising. For example, the detailed terminology of notated scores required for the performance customs of Western music may be irrelevant for performing other world music.

I now believe that aural skills were lacking in my piano studies and teacher training. Later in life, my aims and perspectives changed as I began to value playing by ear. Autobiography helped me to confront my past experiences of prioritising notational learning versus my new encounters with incorporating an aural pedagogy. It improved my teaching and changed me into a more versatile and more reflective

teacher. According to Olson (1992), improvement starts when teachers face issues in their practice. Changing their practice involves having a dialogue between their past and present values. This allows their hidden values to surface so teachers "can re-assess and re-align practice to more closely relate it to fundamental values" (pp. 78–79). Through the medium of autobiography, discourse between one's past, present, and future enables greater clarity about fundamental values for improving teaching. It uncovers hidden constructs and patterns to provide deeper understanding (Kompf, 1993; Sikes et al., 2001).

I examine changing processes through critical reflection and dialogue of "old and new practices" (Day & Olson, 1992, p. viii) as a teacher and researcher. I recognise that the notation-based approach enables students to progress through the grades and feel a sense of achievement. It can achieve certain ends: opportunities to compete, perform with others in ensembles, master classes and solo recitals. It allows some students to expand repertoire, listen extensively to a wide range of classical music, and critically evaluate other performers. Hallam (2001; 2012) and Hallam and Creech (2010) contend that notation-based approaches facilitate learning to sightread, interpret relevant styles of the classical repertoire, and develop autonomy, practice strategies, and complex motor skills. However, some of these are also common to oral traditions, given some musicians who cannot read music develop practice strategies, technical skills and autonomy. I began to question the traditional notational-based approaches used alone, as supplementing them with learning to play by ear might foster a broader range of skills in the musicianship of children. Even for those who may decide to pursue career trajectories within particular traditions of performance, to ignore aural skills excludes or marginalises intrinsically worthwhile dimensions of musicianship.

1.2 Autobiographical episodes

1.2.1 Childhood music making memories

My mother returned to piano playing as a mature student via the traditional notation-based approach, premised on reading staff notation. I developed a great love of classical music while listening to her practise (Hallam, 1998; Brand, 1986). Her former piano teachers discouraged her from playing by ear as a child. She climbed

the graded examination ladder and received her Associate of the London College of Music and Licentiate of the London College of Music diplomas, which did not include teacher training. I became her first piano student at four years old while she set up as a private teacher. With her help, I enjoyed progressing through the grades of the Royal Irish Academy of Music (RIAM).

When I was eight years old, my mother taught me to play Chopin's Prelude in A major Op. 28 no. 7. I loved "this gem-like waltz" (Schneiderman, 2011), and was privileged to have her daily musical support for learning it. She entered me in a music competition while at a Butlins holiday camp. Unfortunately, I had a memory lapse, stopped playing and cried on stage. Although I could play the Chopin Prelude in my familiar surroundings at home, I could not perform it for an audience of strangers. I felt embarrassed that I had disappointed my mother and failed the audience. Stage fright haunted my performances for some time afterwards. Describing the Suzuki process of learning this Prelude, Barbara Schneiderman (2011) wrote:

> So we begin with the intuitive, central to both our learning process and to sensitive music making. There is for youthful beginners an aesthetic, auditory, emotional and physical nexus to which we gradually add visual and cognitive skills in a rare blending of human attributes. (p. 82)

My mother may have used some mixed methods to teach me how to decode the notated music. I mainly learned it through reading the score. Looking back on this moment as an experienced piano teacher, I regret lost opportunities of teaching my students how to play music by ear prior to reading the score. For playing by ear connects with an aural system that is already understood (Mills & McPherson, 2015). Starting music learning "with the intuitive" might have enabled me to perform more confidently.

I incessantly used to sing songs my mother taught me, while walking, running, in the car, in the playground, imitating songs on the radio and television, and songs from the Eurovision Song contest. My general musicianship was devoid of some musical literacies in my formative years growing up in a rural area. I was not taught how to sight-sing—to sing music by reading notation without practising it. Reading notated music yields limited information about music and is only one facet of learning it (Mills & McPherson, 2015). My mother began teaching me to play the piano using the tutor

book *John Thompson's Easiest Piano Course*. This tutor book is based on the Middle C approach, which promotes music reading but omits aural tasks. "Undue emphasis on staff notation can lead to atrophy of musicians' creative abilities, and their ability to memorize" (Mills & McPherson, 2015, p. 178). I struggled to read music, even though I had my mother's daily input to learn rehearsed pieces. My sightreading – learning to read notation without rehearsing – was underdeveloped. As an RIAM examination candidate, I performed rehearsed pieces and technical requirements confidently and at a high standard, yet examiners expressed surprise at my poor level of sightreading. This might be because of a guilty conscience for my ineptitude or my distant memory, more than what happened since my past is not fully recoverable for me.

Inspired by other composers, I tried composing my own music, but made little progress. My mother did not improvise or play by ear. Neither did most of my other piano teachers. Her piano teachers encouraged her to learn music "the proper way" through reading notation but dissuaded her from playing by ear or improvising. Because she lacked aural skills, she could not pass them on to me, thus the graded examination criteria took precedence. I enjoyed idly amusing myself on the piano, experimenting with the damper pedal's sympathetic resonance, and composing my own random melodies "for the fun of it" (Azzara, 2002b; Chronister, 2005c, p. 19; Pratt, 1998, p. 131). Mucking about was discouraged and "practise properly" encouraged. I sensed playing music other than following the score was considered a waste of time. Practising meant repeating parts of an examination piece in a disciplined manner many times: slow at first, gradually speeding up hands separately and together, repeating every two-bar phrases.

> Young children tend to careless repetitions following quickly one after the other. They have little or no patience; reflection is not their virtue, and the span of their attention is comparatively short (Kochevitsky, 1967, p. 29).

My early steps of improvising in the moment and being creative stagnated. Playing by ear and reproducing music without the aid of notation became underdeveloped (Azzara & Grunow, 2006). Besides performing classical examination repertoire, my potential to create and enjoy music could have increased and made music reading more meaningful (Azzara, 2002b). There is, however, uncertainty in having partial access to distant memories of childhood and imaginary music encounters. The

danger is that I misrepresent my childhood. I might convert the nature of my childhood memories to fit in with my role as teacher-researcher, as I bring ear-playing skills to the centre of my practice.

1.2.2 Educational upbringing and teacher training

My primary education in rural Ireland comprised multigrade classes, whereby one teacher taught two or three different grades within the same classroom. By the time my family moved to the city during my final year of primary school, my education lagged behind my peers in the city. I had to work hard to pass my entrance exam to secondary girls' school. I grew to dislike certain subjects when teachers used mindless repetition. In the meantime, I studied piano with my mother's teacher as a private student and became a prize winner in local and national piano competitions. The first time I began applied musicianship classes was during my final year of secondary school, while preparing for the Leaving Certificate examination, the final exam of the Irish secondary school system in Ireland. I define applied musicianship classes within the context of a music conservatoire as establishing the fundamentals of musical knowledge. They include music rudiments, the systems of how scales, chords and intervals work. Applied musicianship classes provide a solid base for students' music learning in traditional and art music, which I will discuss below (Subsections 1.2.8, and 3.4.1.1). I struggled to see the point of studying school subjects because I knew I wanted to study music when I finished school. Thereafter, the choice that confronted me was to study instrumental teaching at a music school, or a music degree at a university. After my audition, I received the following report:

> Dear Candidate, As you will have gathered from the interview, we had some misgivings about your suitability for the music course; on balance, however, we think you may be able to achieve the required standard, since you seem to be determined enough to do this! It is only fair, however, to point out that determination alone is not enough: but we look forward to seeing you at the beginning of term and hope you will be happy in the course … Above all, practise sightreading and sight singing, since general musicianship is central to the degree requirements.

Secondary school subjects that had nothing to do with my ambitions alienated me from having to learn them. I wrestled with the prospect of enduring similar types of learning at university. The focus on musicology rather than performance did not appeal to me. I wanted to study the piano repertoire at a deeper level. Currently,

degree courses in music institutes in Ireland promote performance as an integrated feature, which was non-existent back then. Instrumental teaching seemed a more appropriate path as I believed it would nurture my interest in the performing arts, and I would gain useful pedagogical skills for my future. Prior experiences of formal education motivated my decision and my belief that university studies were an extension of what I disliked at school.

I began studying piano as part of a two-year instrumental teaching course. My piano teacher supported me in expanding my repertoire. He was most influential in my music career at the time and he prepared me for future performance studies in Vienna (Purves et al., 2005). Pedagogical training involved learning how to teach beginners using piano tutor books and a couple of observations of my teaching of two beginner pupils. I also began sight-singing and solfège in aural training. Pedagogical training of group piano teaching was non-existent and playing piano by ear inadequate, other than observing a teacher improvise. My pedagogical *viva voce* reported:

> A lot less assured in this branch of her work. The impression given was of a pianist finding little technical difficulty in her own playing (which is true) and therefore relatively unaware of the problems facing many others. Many of her answers sounded too "second-hand". She needs to be more analytical in finding solutions to problems.

The course equipped me with analytical strategies for solving students' difficulties via the notational based approach, assorted schools of piano technique, similar to the teacher training at Reykjavík College of Music (Haraldsson, 1987). It lacked pedagogical strategies for teaching students how to play by ear or how to teach a wide range of student ability.

> There is an inherently enclosed mind-set behind the way the institution of "private teaching, private learning" has developed. It is evident from the emergent research literature on styles of musical instrument learning that musical instrument teachers should be trained to face the different challenges that different students offer and to broaden their conceptions of what can be done in the lesson time. (Davidson & Jordan, 2007, p. 734)

As the report quoted above indicates, I struggled to empathise with and help students. I was more interested in the performing aspect of the teacher training course and in my own performance career. More recently, Burwell, Carey, and Bennett (2017) note it is more prevalent for instrumental teacher training to be

situated as non-compulsory in undergraduate courses, thereby "reinforcing socially and culturally prescribed perceptions of teaching as a second best or fall-back career choice" (p. 10). After students graduate, however, teaching is often precisely what they do to earn a living. Indeed, Heneghan (2004, p. 310) argues that "teacher training should be mandatory for all performers."

From the first lesson, I taught beginners how to read notation using *John Thompson's Easiest Piano Course* tutor book (Thompson, 1996), based on the Middle C approach (Cathcart, 2013). The graded examination repertoire followed and often became the "syllabus" for my teaching (Davidson & Jordan, 2007). Preparing some students for examinations as a young piano teacher proved to be more difficult than I had expected. I began noticing that although my method worked for some students, it did not seem to work for others.

I used to prefer teaching the talented quick learners who did their best to progress rather than those who struggled, whom I found challenging to teach. My unconscious bias contributed to my lack of understanding and empathy: "teachers tend to favor students whose preferences and expectations most closely resemble their own" (Jorgensen, 1998, p. 55). Talented students seemed to have an innate musical ability that allowed them to understand how to perform music and learn from my demonstrations with little difficulty. Diligent learners made steady progress in every lesson. Some students became proficient at technique, reading music, and playing musically. Others played awkwardly. Sometimes I became irritated and impatient with those who found it harder to progress and blamed their struggles on a lack of practice.

The seeds of disquiet resurfaced with that kind of teaching, being that kind of teacher, and having those kinds of values. I wanted to help students and tried different ways. However, I was unsure how to bridge the gap between what they could achieve and what I thought they needed to achieve to become competent performers. Nevertheless, I recognised the deficits of the "symbol before sound" approach, teaching music reading via synchronising fingering and notation without establishing "links between eye, ear, and hand" (Mills & McPherson, 2015, p. 18; Schleuter, 1997). Hallam recommends balancing the opposing non-transferable skills of reading music with ear-playing skills:

> If children are taught to play by ear and improvise, they are likely to be able to do this well. However, there will not be an automatic transfer of their ability from these skills to others, such as reading music, or performing rehearsed music. If one set of skills are taught at the expense of others then we would expect these to be better learned. (Hallam, 1998, p. 25)

Because curricula depend on progressing through piano tutor books and the exam system (Cathcart, 2013), it is easier for piano teachers with low teacher self-efficacy who lack confidence in their aural ability to prioritise music reading and exclude improvising and ear-playing.

We teach the way we were taught, and conform to "the apprenticeship model of instruction," which indicates a systemic problem with piano teacher training (Lennon, 1996, pp. 9–10). Heneghan (2004) notes how instrumental teachers typically come from a performance background:

> Those who are destined to teach performance at all levels, depending on the calibre of their innate gifts and the sophistication of their training, normally come through performance-rich courses … Until this branch of music education is subjected to fundamental reappraisal in Ireland in a way which recognizes its indispensability to the comprehensive curriculum, in both its general and specialized aspects, and its worthiness in philosophical terms, while defining attainable standards confirmed by assessment, it is the writer's view that music education will continue to be problematic and unconvincing in its delivery. (p. 389)

I taught piano similar to the way I was taught, reproducing the same behaviouristic teaching methods I received (Hallam, 1998). By behaviourism, I mean the paradigm founded on behaviourist psychology, in which the underlying pedagogy came from constructivism and its experiments. I discuss below (Subsection 1.2.3) its connection to repetitious cycles of stimulus, response, punishment, reward and classical conditioning.

As with my mother before me, my pedagogy emerged:

> through a mixture of trial and error, from observing others (on the rare occasions when this is possible) by remembering … [my] own teachers and from … [my] own idea of what it should be like (Sikes, 1985, p. 36).

When teachers are directed to implement a vision without the practicalities of how to do it, they persist with traditional approaches (Olson, 1992). Initially, as a teacher, I wanted to support the idea of teaching children to play by ear. I was unsure of how to tackle the problem, prior to embarking on my professional development exploring

ways of implementing an aural approach. Therefore, I persisted with the traditional notation-based approach. I will discuss the infrequency of observing other piano teachers teaching later in Subsection 1.2.5.

Other instrumentalists only require competent reading skills of one stave compared with pianists who require both treble and bass staves, as in chordal playing. Pianists must read more notes than other instrumentalists. I used to teach beginners the treble clef notation soon after they began lessons. Some children took longer to learn to sightread than others (Hallam, 1998). Discerning whether students have genuine difficulties with reading notation or a lack of practice is challenging (Oglethorpe, 1996). I observed recurring patterns of ineptness in some students, especially when they struggled to revise examination repertoire already learned a few months earlier. Competent students could not play a tune by ear. Piano playing seemed alien to some of my international students, as indicated by their awkward finger movements. Although students trusted me to know what was best for them, a curriculum that favoured music literacy skills constrained me (Hallam, 1998). It made me question whether I was teaching *it*, rather than the student (Barrett & Stauffer, 2012).

1.2.3 Studying abroad and returning to Ireland

According to Olson, "the behaviourist agenda in education lives on in the continuing pursuit for technical perfection" (Olson, 1992, p. 15). Behaviourism does not, however, equate merely to the pursuit of technical perfection. As noted above, behaviours with the behaviourist approach are learnt via classical conditioning (learning by association), or operant conditioning (learning by rewards and penalties) (McLeod, 2017). Students passively observe teachers who use the stimulus-response cycle, such as repetition and positive rewards for learning how to behave and respond to stimuli. The curriculum is well-defined (Rideout, 2002, p. 35), with concrete criteria that promote equality via standardised education and the learner as a product of the curriculum. Outward behaviour is the focus rather than free volition or emotion. In contrast, with the cognitive approach, maturation is essential for learning, and relies upon the student's level of ability, maturity, and experience.

Driven by my love of music, I practised diligently to pursue technical mastery and overcome memory insecurities. My training as a pianist and accompanist in Vienna

was behaviouristic, aimed at producing the next great instrumental performer (Palmer & Baker, 2021). Under the traditional notation-based approach, I had become a successful model of the behaviouristic system. I was a prize winner in competitions, received student scholarships, attended masterclasses with elite concert pianists, gave concerts at home and abroad, and found employment teaching music wherever I lived.

There are also versions of telling my story which privileged accuracy and a competitive ethos that link to other effects of the system. My aural insecurities loomed large, hence I thought I was an incompetent product of the system. Trying to perform the next bar or phrase, struggling to reproduce the music of my inner ear during recitals, and expecting mishaps, led to performance anxiety. Improvisation would have been useful for performing (Chronister, 2005a). I wished I had learned to improvise in early childhood and felt insecure around musicians who could.

When I returned to teach in Ireland, my job was to bring pupils through the music school's graded examination system, based on a curriculum that focused on perfecting and interpreting rehearsed pieces, technique, and sightreading. As mentioned earlier, some students had to put in an enormous effort to revise their repertoire after holidays. This caused me to wonder whether it was because of the notational-reading emphasis. In those days, skills such as scales and sightreading featured prominently in discussions with colleagues. Creative and transferable skills such as improvising, and composing were absent (Taaffe, 2014). As time went on, I increasingly voiced my concerns with colleagues. I shared my belief that aural pedagogy needed to be improved. However, I lacked the confidence or the wherewithal to fix the aural gap and so it did not happen.

Over the years, I became sceptical of the benefits of using sightreading tutor books to improve students' reading. Sloboda (2004, p. 11) claims that educators are unclear about estimating how many bars in advance they normally read. This uncertainty effects all aspects of sightreading and makes teaching it "an almost impossible assignment." Piano tutor books which focus on reading music may help pupils to become adept readers but not to play by ear. Some pupils, even with a reading-centred-approach may not become competent readers. The opposite occurs

with an aural approach that lacks supplementary reading, whereby pupils can play by ear, yet struggle with reading notation (Hallam & Creech, 2010; Hallam, 2012).

1.2.4 Perennial graded examinations

The central reason for discussing examinations is that they may be generating a situation where there is no time for exploring creative aspects of musicianship that do not rest on notation, such as improvising, or learning by ear. For example, Thomas Weaving of the Royal Irish Academy of Music complained in the 1950s:

> One feature of the use of examinations is disturbing, namely, the habit formed by many teachers of allowing their students a whole year in which to prepare the scales, study and pieces for a grade, so they do practically nothing else … This form of examination madness has affected even our Schools of Music … One would like to see many more entries for the pianoforte duets and other ensemble work. (2013, pp. 130–131)

Piano learning in the 1960s focused on reading music, and performing in *feiseanna* (festivals) and examinations (Cathcart, 2013). Given the current continued emphasis on scales and pieces, some students can take the best part of a year to prepare for exams. They may have other interests, learning difficulties, or become unmotivated. Motivating students via the graded examination process is based on behaviourist theories (Hallam, 1998). Exams may even disadvantage students, according to Comeau and Huta (2015). Although students practise for higher scores, they may become less willing to perform or create their own music. Conversely, the examiner's feedback can have a positive effect on improving performance (p. 46). The graded examinations are the primary means of assessing piano playing (Salaman, 1994). Although they have their benefits, "they fail to nurture some of the most important aspects of a truly musical education" (p. 221).

The RIAM graded examination system prioritises music reading and lacks any criteria for encouraging ear-playing or improvisation. This does not stop teachers from teaching a piece of music to their students by ear, thus, the modus operandi of teachers may contribute to the issue. In relation to the content of specific boards, the Associated Board of the Royal Schools of Music (ABRSM) examination board has aural testing that includes children responding by ear to a given melodic phrase. For example, candidates must answer phrases, clap the pulse of a piece and echoes of rhythm, sing echoes of phrases, and answer questions after listening to music. From

Grade 2, they have to identify pitch changes. From Grade 4, they must sing or play a melody from memory after listening to it twice. They have to sing or play the upper phrase, sight-sing, and identify cadences, from Grade 6, while from Grade 7, they must sight-sing or play the lower and upper parts of phrases and identify cadential chords and modulations.

The grades expand in small increments, but this is tokenistic as the system, and its teachers prioritise music reading. The choice of singing or playing echo-phrases hardly fosters ear-playing or improvising. Also, there is a difference between being able to sing a tune from memory, and actually playing it. Such generic aural tests "are not necessarily transferable to playing by ear" (Taaffe, 2014, p. 134). In relation to my biography, these aural tests have not changed much since I was an examiner, or even since I was a child.

The Grade 1 ABRSM Jazz piano scales and arpeggios include modes Dorian, Mixolydian, pentatonic scales and two arpeggios. Grade 5 technical aspects also include Lydian, blues and chromatic scales as well as arpeggios and broken chords. Perhaps, a hybrid of the Jazz and Practical Piano scales and arpeggios criteria might encourage more aural playing (see 2.1.3.5).

I presented exams to students and parents as a prerequisite and competitive part of studying at a music school. I thought my reputation was at stake if my students did not get high marks. Some parents and students choose teachers based on their successful exam results, which bolsters the teacher's standing (Davidson & Scutt, 1999; Salaman, 1994).

> It seems that the teachers in the current study manipulated external and internal reasons for working on examinations to try to optimise the experience of the examination: for the child's overall progress and their own career profiles. It could be that many teachers do this. (Davidson & Scutt, 1999, p. 93)

Often, parents and students may well prioritise exams in music schools to get value for money and ensure their child progresses (Davidson & Scutt, 1999). Some parents are content with their child valuing "music for its own sake, regardless of external rewards" (Sloboda, 1994, pp. 8–9). All parents want their child to do well in exams. Certain students might regularly practise and become confident, assured performers on the day of their exam. Progress fluctuates for others and only

increases as the exam approaches. Those who struggle might scrape by, consistently receive low marks, and become discouraged.

Little has changed in relation to the emphasis on the annual exams. Teachers might regard them as "an end rather than as a means" (Scholes, 1947, p. 630), for which I was an example. I prepared students to perform confidently on the exam day. I followed the prescribed syllabus, used traditional routines to teach staff notation and focused on the examining criteria and skills that would be assessed, e.g., rehearsed pieces, sightreading, and technique, to the detriment of other skills (Davidson & Scutt, 1999). The continual focus on only learning to read music may not suit all students (Mills & McPherson, 2015; Taaffe, 2014). Pupils and parents' expectations, commitments and values come from their histories and interests, which instrumental teachers might overlook. Teachers' expertise in music might also take precedence over understanding the families' aims for their child's music studies.

1.2.5 Teacher isolation

Burwell (2012) highlights the disparity between instrumental teachers' pedagogies:

> The variety among teachers' approaches to instrumental lessons appears to be enormous … tutors are typically engaged on a part-time basis, rarely sharing a background in formal teacher training … in a setting that is largely isolated both from other practitioners and from researchers … The difficulties involved in discussing musical skills and the acquisition of them … would also seem to work against the establishment of a publicly agreed body of knowledge specific to instrumental teaching. (pp. 47, 108)

Instrumental music teachers are confined to teaching in isolation. Teachers' varying timetables and work contracts are some of the obstacles to engaging with other colleagues. Presland (2005) warns of the risk of teachers being isolated and working "in their own educational and musical worlds" (p. 247). This may also impact students in accepting a disconnect between instrumental music learning and "general musical education." She suggests that better communication could precipitate more worthwhile outcomes. Unlike class music teachers in mainstream schools, most instrumental teachers' lessons for young children in conservatoires start after school hours. Some instrumental teachers work during and/or outside of school hours. Peripatetic teachers visit various schools during the school day, whereby children are released from class lessons on a rotating timetable, so as not to miss the same lesson each week. Other instrumental teachers only teach children

in private practice, or in their homes, after school hours, or at weekends. Some do a mixture of this. These scenarios can isolate teachers and inhibit change and the sharing of good practice (Burwell, 2012; Hallam, 1998; Cathcart, 2013).

> Historically … the isolation of the studio system has done little for the development of coherent pedagogies: the activity of the teacher-student dyad in each is inaccessible to others, and teachers are often obliged to develop their work in relative isolation, relying on reference points that are limited to their personal histories and accumulating experience. (Burwell, et al., 2017, p. 2)

Isolation may relate to not being aware of what happens in the school during class hours. Time pressures and a lack of opportunities for shared educational training may be to blame. Peripatetic teachers who visit multiple school sites dash in and out of them, not being part of the discourse, and professional development ventures with class music teachers. They rarely have time for collaborating with their classroom colleagues. Attitudes, potentially, with many visiting specialist instrumental teachers not having qualifications as educators are, as a whole, regarded as not properly qualified music teachers, even if some employees are qualified. Also, there is no requirement that studio teachers mix with, or participate in, professional development with others, therefore, few do.

Teachers and music graduates have a "higher regard for performance and a predilection for developing their teaching practices in isolation" (Burwell et al., 2017, p. 14). Juntunen (2014, p. 173) reports that teachers regard their views of teaching as personal and "not usually to be shared and discussed." They may be oblivious to seeing themselves as innovators of knowledge due to low self-efficacy (Elbaz, 1981). It might also explain the lack of research in the instrumental studio (Burwell et al., 2017; Jørgensen, 2009; Perkins, 2013).

Part of my Post Graduate Certificate in Education (PGCE) secondary school teacher training in the UK involved my observations of how my mentors taught classes. For some months afterwards, they observed me teaching classes. Observations of my CSM piano teacher training were much less frequent. Plus, the observations involved my teaching of a child who found learning the piano easy, when I should have also had to teach students who found it difficult. According to Davidson and Jordan (2007), instrumental teachers should be trained to work with students who struggle.

Burwell, Carey and Bennett (2017) note that unfortunately, instrumental teachers rarely have occasions to share their methods with other teacher trainees and teachers at their workplace, or "with the institution that houses them" (p. 15). Master performers who become prominent role models are likely to lack pedagogical training, whilst the community of practitioners who could assist them is often inaccessible. Students in turn are inclined to prioritise "their performance identities," disregard the difficulties of isolation, and assume that pedagogical expertise will be an automatic outcome of their "performance skill" (pp. 16–17).

> The cloistered cycle is complete when apprentices themselves become masters, expecting to discover their teaching skills in relative isolation. In twenty-first century higher education, cloistered cycles have no place (p. 17).

I teach one student at a time without interacting with other teachers. I have observed masterclasses with visiting performers and elite teachers whose students win international competitions. I have engaged in piano teaching discussions at the Curious Piano Teachers' webinars. These webinars are live online video presentations for piano teachers around the world, recorded on YouTube, and organised by Dr Sally Cathcart and Sharon Mark-Teggart (2015). Apart from these, I have rarely observed peers teach piano in music institutions. Teaching in the piano lab is less isolating. The piano lab teachers liaise with one another to organise placements of students into groups, collaborate over timetables, discuss, and reflect on challenges and report on keyboard repairs.

1.2.6 Changing educator

Cathcart (2013), and McPherson and Gabrielsson (2002) claim most piano teachers prioritise teaching notation rather than the sound before symbol approach. Over time, I found my practices did not reflect my values. The notational approach seemed to exacerbate difficulties for students who found piano playing difficult. It hindered exploring other ways of music learning. According to Cathcart (2013, p. 395), "it appears that the strength of tradition is so strong that many teachers will require an equally strong catalyst to change their teaching." I first encountered the sound before symbol approach during my PhD studies, which became the "strong catalyst" for me to change. My sense of what was wrong with my own formation and

my awareness of the limitations of my practice as a teacher made me responsive to it.

Polkinghorne (1983) acknowledges that human science searches for the "reality of our experience, actions and expressions," which is nearest to us, but resists our understanding (p. 281). Britzman (2003) contends that to theorise about our experience, we must employ our reflective capabilities. The origins of theory are in teachers' lives, "values, beliefs, and deep convictions enacted in practice, in the social context" and relationships that invigorate the teaching and learning experience (pp. 64-65). Hindsight deconstructs experience into "second thoughts and allows imagination its surprising depth and breadth" (Britzman, 2003, p. 13). Understanding the past helped me rethink how a lack of ear-playing may have affected me as a musician and a music teacher. It contributed to difficulties experienced by my past students, limited my capacity to help them, and left me wondering if they continued engaging in music after they finished studying with me.

Dalby (1999) suggests that instrumental teachers may be reluctant to go against the prevailing opinion of practitioners "by adopting values and methods that differ significantly from those of their colleagues" (Dalby, 1999, p. 22). I had concerns that if I spent time on ear-playing, my students might get lower marks in their exams. However, I reasoned the children might enjoy and benefit from broader skills. I calculated the risk was worth taking, and the difficulties were worth the trouble. I endeavoured to change my practice to include ear-playing tasks both in the piano lab and in piano lessons.

Values are broad motivating goals that convey what people consider important (Schwartz, 2015). The music school is described as a somewhat "closed community, with entry subject to audition. Cultural elitism is standard" via the favoured master-apprentice method (Burwell, 2012, p. 97). I inherited values around traditional teaching practices and curricular content, which focused on acquiring predetermined skills attained through imitating, reciting, and assimilating (Britzman, 2003). Such values devalued playing by ear and the psychological complexities of teaching. Sometimes my values and my practice were in tension with the values of some students or parents, who valued their child's enjoyment of music more than success in graded exams. As a student, I prioritised the pursuit of musical and technical

excellence and an enlarged repertoire through disciplined practice. As a teacher, I prioritised high standards. Indeed, Hallam and Creech (2010) argue that it is ironic that instrumental teachers are often berated for prioritising "technique and accuracy at the expense of musicianship" (p. 93). Audiences enjoy accurate, musical playing but judge unfavourably performances with wrong notes, insufficient articulation, or an unpleasant tone. Interpretation becomes paramount in the evaluative process only when these technical skills are secure.

The concept of music education that informed my earlier teacher's perspective was limited and inflexible. It addressed the needs of a few students. According to Reimer (2007), comprehensive music education involves making it possible for each child to attain his or her potential:

> In our professional case the value of each child fulfilled musically provides a goal toward which we can strive with the dedication of a full heart, knowing that, to the degree we can help each child achieve it, we are contributing powerfully toward the inevitable consequence of doing so, that of *each adult fulfilled*. (Reimer, 2007, pp. 11–12)

My value system changed direction as I resisted replicating the pedagogies I had been on the receiving end of. I reflected on what would be best for pupils and parents with more democratic values rather than "the autocratic will of an elite" (Bassey, 1992, p. 9). Increasingly, I departed from my former ways of teaching and explored other approaches. Olson (1992) claims that teachers improve their teaching when they become more aware of the values that influence their practice. They can "argue for conditions which support better practice including improved curricula, better working conditions and increased commitment to education" (Olson, 1992, p. 92). Despite working within an institutional value system preparing students for examinations, I broke away from my dependency on notational reading skills. I regarded high marks as less important. As beginners progressed to Grade 2 level, we figured out ways of overcoming difficulties. I focused on developing aural skills, and learnt to teach them by rote, to improvise, transpose, and read notation.

1.2.7 Broadening aural horizons

I took part in Christopher Azzara's five-day intensive course *Instrumental methods and techniques: Creativity and literacy in music teaching and learning*

(www.gordon.edu) (Gordon College, 2014) in the United States. The course made me curious about ear-playing and its impacts. I was uncertain of the gravity of its proposed teaching methods and its learning outcomes. Implementation in the music school was not required by my employers. I was not an advocate of this pedagogy at that point. I simply wanted to explore this through rigorous practitioner research as part of my constantly evolving development and identity. My observations of the course seemed to show positive learning outcomes. Key pieces of literature on this include "An aural approach to improvisation" and "Making connections: Early childhood and beginning piano study" (Azzara, 1999, 2002b). Teachers learnt to empathise with being a beginner by playing songs by ear on instruments other than their own instrument in a fun and non-intimidating atmosphere. We learnt the beginnings of how to improvise and listened to famous improvisers. I purchased the *Jump Right In: the Instrumental Series Teacher's Guide* and student books with CDs (Grunow, Gordon & Azzara, 1999). The experiences whetted my appetite for exploring the research scholarship and literature on this, and related matters. I wanted to explore it through rigorous research myself. A few weeks later, I adapted and piloted the material with Grades 1 and 2 piano lab students. As I had not taught aural skills before, it was daunting to try a fresh approach that took me outside of my comfort zone.

Developing ear-playing skills involves learning a large and varied song repertoire by ear, which is fundamental for improvising (Azzara, 2002b, p. 21; Snell & Azzara, 2015). Piano lab students learned ten songs by ear every year, totalling thirty songs in three years. I "enjoyed the students' pleasure" (Olson, 1992, p. 44) learning to play by ear. They were initiated into lifelong musical engagement, playing any music they liked, rather than being limited by the graded examination system.

1.2.8 Applied musicianship classes and piano lesson connectors

The pedagogy and aims of the musicianship class teachers' practice differ from instrumental teachers' practice. There is an ideological division between music classroom practice, which aims for cognitive development based on constructivism, and instrumental performing skills based on behaviourism (Garnett, 2013). Classroom music teachers may also come from the behaviourist tradition and, like instrumental teachers, reduce music learning to certain skills which preclude other

skills. Behaviourist learning is "associated with training performers" via a curriculum that promotes musical competencies and skill acquisition. Constructivist learning relates to students expanding their own understanding of music. Garnett suggests that, when creative teaching takes place in both classroom and instrumental practices, constructivist teaching mirrors the way students learn.

The CSM is a specialist music school based on a tripartite model of weekly individual instrumental lessons, applied musicianship classes based on the Kodály method, and orchestra, band, or ensemble groups (see Subsection 3.4.1.1). As noted earlier, there is a disconnect between applied musicianship classes and instrumental lessons, wherein aural skills are divorced from the former, and considered two separate areas of learning. A fundamental aspect of the premise of my research is this disconnect. As a researcher and teacher, the sound before symbol approach in group lessons was how I addressed the disconnect. It prioritises learning to play by ear before learning to read music notation, which I will discuss further in Chapter 2.

I found five connecting skills that the children had acquired in their applied musicianship classes, which connected with piano lab learning and helped me improve pupils' aural and reading skills. These connectors included singing, learning songs, and singing via solfège to label notes by ear, mnemonics, and landmark notes to identify notes on the lines and spaces. Pupils had also learned how to label rhythm using Galin-Paris-Chève French rhythm syllables, which was easier than metric counting for the first few years of learning to play the piano. Beginners benefit from a balance of music reading and playing by ear skills when they can connect their theoretical music learning with playing their instrument. The connectors helped me become more confident as a teacher with educating aurally in individual and group lessons.

Formal piano pedagogy practice in Ireland has tended to exclude ear-playing skills, while incorporating a high dependency on a curriculum that prioritises music reading, interpretation, and technique (Taaffe, 2013, pp. 104-5,108). The isolation of instrumental teachers means they have few opportunities to discuss issues with colleagues (Gaunt, 2007). Incorporating aural pedagogies helped me as a teacher to find new perspectives in dealing with pianistic and pedagogical difficulties, despite aural deficits in my upbringing and professional life. My aims became more inclusive

and focused on helping the diverse range of student ability that I encountered. The topic is important because the key skills that most students require for lifelong learning are a blend of aural and reading skills. Bringing playing by ear to the heart of piano playing could ease performance anxieties and allow learners to enjoy and continue playing music.

1.2.9 Reconceptualising musicianship

This autobiographical chapter locates the research in my history and gestures at the extent to which I have outlined how my ideas about musicianship shifted and the different contexts in which I found myself. My musical training comprised an eye-finger pathway which bypassed the ear and caused "psychological and skill-related inhibitions about creativity" (Hill, 2019, p. 39). I used to assume that all children needed to hone technical skills and perform to high standards to continue instrumental studies. Although learning notation does not prevent one from learning diverse music and is an important part of musicianship, a challenge to teaching music in its widest possible sense is the strong dependence on notation and technique. Other aspects of musicianship become neglected. I knew how to teach children how to interpret the notation-based system. The challenge was to halt my total reliance on music reading and engage with teaching music-making outside of it.

The forces operating upon me of repeating the pedagogies that I received prior to my research formed my pedagogy, therefore I persisted with implementing traditional methods in the absence of anything better. My desire to try something else increased as I recognised ear-playing was lacking in my teaching. As a teacher, I gradually began to appreciate the sound before symbol approach and to address the aural gap with beginners. As a researcher, it led to formulating defensible ideas and approaches founded on the literature. Theories of developing musicianship have highlighted the tendency for formal instrumental music learning to neglect ear-playing skills (McPherson & Gabrielsson, 2002; Priest, 1989). In terms of my journey as a musician and music educator, ear-playing was a revelation to me. It caused me to reflect on who I am and what I do and enabled me to explore the complex field of aural music education. It challenged my assumptions about linear progression, the acquisition of musicianship, piano pedagogy, and dialogic relationships with the children's parents, which implied a messier and less controllable field. As a teacher, I

felt strongly about the need to counterbalance what I perceived to be the "creativity-stifling effects of written culture" (Hill, 2019, p. 52). Thus, I moved away from only teaching sightreading and changed from prioritising music reading to developing students' aural neural pathways. My foremost strategy was to prioritise ear-playing through "creativity-enabling aural skills" and "imitating aural models" (p. 44). For me, ear-playing and reading music were the two most meaningful skills required for beginner pianists from which other skills could develop. CSM piano pupils learn technique and repertoire in their studio piano lessons because piano teachers prioritise these skills, while pupils learn to sightread in the piano lab. A difference between the two settings is pupils are alone with the piano teacher in the studio settings, whereas they are with their peers as well as the teacher in the piano lab.

My purpose as a teacher was for pupils to acquire excellent musicianship. I suspected that might be through improvising as well as reading notation. Becoming an improviser and being able to play by ear takes time and requires learners to work on these skills themselves. Nevertheless, broad classical musicianship does not mean having to be an improviser. I had to be realistic about what I could help beginners attain within weekly half-hour lessons and what they had time to do at home. I could teach them how to play by ear and start them off learning to improvise their own notes and rhythms. Some learners discover they are good at playing by ear and enjoy it. Others find they struggle and either quit or continue despite their struggles (Cathcart, 2013). Being a musician means something different for different learners that goes beyond learning the piano and musical knowledge, and supports personal development. Lamont (2008) notes Vygotsky's (1978) approach as accentuating certain "social and cultural experiences" that people face, which "shape their development" (p. 241). Because of the "social nature of music in society" the learning process requires the child to be considered as "an active participant in culture." For many learners, musicianship is more about developing social skills, aesthetic awareness, and creativity (Paynter, 2002).

1.2.10 Concluding remarks

The rationale for developing ear-playing of middle childhood beginner pianists emanates from being wedded to a notation-based piano learning approach. Before my research, I did not consider musical creativity to be as important as music

reading. Throughout my teaching career, I suspected my problems with not being able to solve all students' difficulties related to the practice being premised on the notation-based approach and a lack of aural skills. In addition, my experience examining throughout the country, analysing students' instrumental performance as they progressed through the graded exam system, enabled me to observe some widely disparate standards. The conservatoire's assessment criteria did not seem to work for all children. I decided the most important contribution I could make to the practice of piano teaching and learning in Ireland was to research my changing practice as I prioritised ear-playing. Few studies have been conducted in a piano lab setting. Examining oneself within a music school can provide a fine-grained account about the inner workings and hidden mechanisms behind the decision-making processes of a piano lab teacher (Dethloff, 2005). Most conservatoires and music schools are unresearched (Perkins, 2013). An autoethnographical view of group piano teaching and learning from the pupils' perspectives can help develop piano teaching.

1.3 Limitations of autobiography

Being the narrator of one's own life-story causes problems as "the very telling of the self-story distorts what we have in mind to tell" (Bruner, 2004, p. 693). The potential limitations or risks associated with an autobiographical approach entail the dilemma regarding the significance and credibility of the study in answering the "so what" question (Bullough & Pinnegar, 2001; Mertens, 2005). It requires the researcher to attain a balance between biography and history (Bullough & Pinnegar, 2001). Tilting too far one way may cause self-absorption or "a confessional"; tilting the opposite way, "turns self-study into traditional research" (p. 15). Rather than being self-serving with improving one's own practice, the aim ought to be "moving scholarship on and practice in teacher education forward," so the research benefits other teachers as well.

When I began my research, I thought what I would explore was the efficacy of a particular music pedagogy: playing by ear. I hope my account of my own practice will indeed provide evidence of the gains that such an approach enables. What I have realised in the course of the research is that teachers cannot straightforwardly take new pedagogic methods from others (including courses such as the course

mentioned earlier: *Instrumental methods and techniques: Creativity and literacy in music teaching and learning*), without deep and rigorous questioning of them. I also recognise an adequate account of pedagogy necessarily entails paying close attention to values, interests, and the histories of the people whose interactions constitute that pedagogy. I am not, therefore, some impartial observer or recorder of a set of practices but implicated in them. My history exerts a shaping influence on who I am and how I intervene in the world, as a teacher and researcher. My account is, then, necessarily perspectival, and contingent. In casting it as an autoethnography, I attempt to be as open about this dimension of the research site as I can. It involves a focus on my own autobiography, the institutional histories and practices that formed me, and in which I participated. Such an approach cannot promise easy generalisability. What it might offer, however, in its nuanced description of and reflection on pedagogic processes and challenges, is an account that might be recognisable, meaningful, and perhaps even valuable to other practitioners.

1.4 Research problem

My research questions about my development as an educator and my autoethnographic work that anchors the overarching purpose of the project, grew from my former research question:

> How can an aural, improvisatory approach to teaching and learning the piano support the development of excellent musicianship?

This question changed to prioritising outcomes for learners:

> What would the musical, creative and self-efficacy outcomes be if beginner pianists learned aural skills, such as improvising and playing by ear, prior to reading music?

These two questions highlight a fundamental shift away from "excellent musicianship" as the goal, and a recognition of a broader range of potential desirable outcomes. It involved a re-conceptualisation of my purposes as a teacher of the children whom I taught. It also acknowledged the children's and their parents' reasons for participation.

Research has identified playing by ear as important for supporting young children's musicianship. Very little is known about group aural piano learning in the piano lab.

There is scope for further research on the implications and consequences of group ear-playing. This thesis explores three aspects of changes in my practice:

1. How has my recursive participation of bringing playing by ear to the centre of my practice changed me to be a different teacher with different values?
2. How has what occurred in the piano lab during the project shifted my thoughts and challenged my assumptions about musicianship?
3. What challenges and benefits are involved in negotiating pupils' and parents' aspirations and expectations when using an aural approach?

1.5 Thesis organisation

The thesis is organised into seven chapters. The next chapter reviews the relevant literature on the problems with the traditional notation-based approach to music learning. It draws on researchers who address the aural gap and who promote a sound before symbol approach for bringing well-rounded musicianship to the centre of music learning. It explores how the debate amongst practitioners and researchers on aural, informal and group methods evolved over time in Ireland and internationally. In Chapter 3, I detail the autoethnographic methodology of my research, which includes action research cycles and the *Jump Right In* teaching intervention that I used.

The following three chapters offer a narrative analysis of three research themes: group dynamics, parental involvement issues, and the differential challenges of teaching to play by ear in the piano lab. Chapter 4 explicates group dynamics and cooperative learning that combat pianists' sense of isolation. Here I discuss how, although I am part of the group and my developing pedagogy effects the dynamic of the group, what emerges is how my pedagogy responds to pupils. Chapter 5 presents the findings of how parental involvement emerged, owing to the difficulties of working with young children. It examines dialogic relationships with pupils and their parents that can lead to a different model of practice. Chapter 6 presents the findings of the various differentiating challenges of diverse student ability in homogeneous and heterogeneous groups, and the ways I interacted with the different groups. It advances the case of my changing practice through pupils' ability being constructed via socially interacting in lessons and the resources they bring with them. Finally, Chapter 7 pulls together the three analytical chapters relating to

the research questions. It synthesises the principal arguments presented across these chapters and looks at how my pedagogy changed. The chapter reiterates how this research contributes to the scholarly understanding of teaching ear-playing in the piano lab. It demonstrates a model that engages in dialogic relationships with beginners and their parents, and values ear-playing because of how it contributes positively over time to learners' musicianship.

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

The autobiography of Chapter 1 explored my rationale for changing my piano teaching practice. This chapter sketches the historical and contemporary context of the research. It provides a background for discussing the piano learning of beginner pianists and examines what music teachers do in the piano lab. It reviews what we know about musicianship in formal music education, particularly regarding music development through music reading and playing by ear. The chapter probes debates amongst practitioners and researchers about how aural, informal, and formal teaching and learning and group methods evolved over time in Ireland and internationally.

2.2 Musicianship

To consider the role of playing by ear for developing musicians, it is necessary to clarify what musicianship is. Scholars acknowledge musicianship is difficult to define. For example, Lamont (2008) claims there is no "consensus on what musical development is" (p. 235). Some forms of musical development have more clearly defined goals, thus, for example, developing sightreading "has an endpoint of being able to read" music, but "becoming a musician is a more nebulous concept" (p. 236). Azzara (2002b) and Priest (1989) concur. Priest (1989) argues aural awareness ought to be central, even when sightreading, "so that the aural basis for musicianship is maintained and a wider view of performance encouraged" (p. 173). Azzara (2002b) claims singing, playing familiar songs by ear, and improvising nurtures musicianship. McPherson (1993) also acknowledges the problems associated with terminologies for musicianship because of the overlap nature of aural skills. He condensed musicianship into five distinct categories that balance visual, aural, and creative performing skills (see 2.3.1). Laitz (2003) defines musicianship as evidence of a learner's auditory discriminative ability to hear, sing, and play music. Burwell (2012, p. 12) regards practical musicianship as involving an array of unique technical motor and artistic skills embedded in one another. Duke and Byo (2012) define it as having "rhythmic precision, clear articulation, dynamic variation, expressive inflection" (p. 718), playing accurately, with a singing tone, and having a high level of "auditory discrimination" (p. 720).

Musicianship depends on the context within which music educators operate, the diversity of students, and the aims and purposes of music educational contexts and systems. As the aforementioned authors assert, auditory discrimination is a key parameter of my definition of musicianship. Ear-playing and reading music give learners options for advancing their musical potential in a variety of different contexts, genres, and roles. The issue then, in defining musicianship, relates to it not being reducible merely to acquiring the specification of a set of isolable skills. It depends crucially on how musicianship is viewed and valued in the world, in a range of different practices and settings.

2.2.1 Developing musicianship

2.2.1.1 Introducing notation

A contentious issue is when and how to introduce notated music to beginners (McPherson & Gabrielsson, 2002; Pitts, 2000). McPherson and Gabrielsson (2002) highlight that most Western classical music students learn music reading in their first few lessons. Notable teachers throughout history, however, promoted ear-playing before learning to read music, including famous historical educators such as Heinrich Pestalozzi, Lowell Mason, and Yorke Trotter – it is not a recent method. Yorke Trotter believed children need to feel the music's rhythm and home key aurally before learning to read it. He argued: "no child should be taught to play the piano before he understands aurally what he is going to play" (1914, p. 13; 1933, p. vii). Mainwaring offered a triangular relationship of sound-symbol-action: "*Proceed from sound to symbol, not from symbol to sound.* It is applicable to all stages of developing musicianship" (emphasis in original, 1951b, p. 12):

> There is a danger here, too frequently overlooked by teachers, particularly in pianoforte playing … that of encouraging the child to associate the symbol only with the related action, without reference to the sound represented by the symbol. The child, thus taught, begins to think that the musical symbol means simply that a particular key has to be depressed … whereas the symbol is really one of a sound. Taught in this way a child may become quite a fluent reader at the instrument, after the manner of fluent typing, but the score is meaningless until actually "played" … The only rational method is to help the child first to reproduce on the instrument simple known tunes, that is, to learn to play the instrument "by ear." This once derided process is comparable to that of learning to speak … *the music experience itself, auditory or manipulatory, should precede the learning of the notation which expresses it.* (Mainwaring, 1951b, p. 13)

Mainwaring critiqued piano teachers who regularly disregard the importance of teaching children how to play by ear. According to Schleuter (1997), this results in piano typists or "button pushers" (p. 48). Azzara (2002b), Mainwaring (1951b), and Schleuter (1997) advocate teaching beginners how to play familiar songs by ear prior to reading them. Bartholomew (1995) suggests we teach "how music looks in light of how it sounds" rather than the reverse (p. 8).

Gellrich and Parncutt (1998) outline how prior to 1850, the sound before symbol approach was an integral part of practice. Older methods of piano learning relied on improvising, ear-playing, music theory, and inventing fingering patterns for improving technique (Gellrich & Parncutt, 1998). Handing down performance skills to the next generation meant developing all-round creative musicians who could improvise, compose, interpret, and read music. This changed, these authors contend, partly because of the high-speed printing-press. It led to the production of mass sheet music, more readily available notated music, and an influx of piano method tutor books. The number of people learning from music scores increased, which eroded oral traditions (Gellrich & Parncutt, 1998). The emphasis on reading music also led to dramatic pedagogical changes. McPherson and Gabrielsson (2002) argue learning music through reading prioritised it "as a reproductive art" with the focus on technique and interpretation (p. 100). It represented professionalism consistent with forms of teaching literacy other than earlier creative pedagogies, whereby "pianists routinely learned not only to interpret but also to improvise and compose at the piano" (Gellrich & Parncutt, 1998, p. 6). Widespread dissemination of notated music allowed more people to engage with classical music and notated musical genres through reading rather than by ear. It must also be noted that many pieces of classical music are too complex to learn by ear, compared with the aural learning of songs and simple pieces.

As pedagogies changed over time, music pedagogies developed, including music projects such as those of Aston and Paynter, which engaged children in creative work (Bruner, 1977). Creative music-making projects in primary schools in the UK were "concerned with general rather than specialist education" (Paynter & Aston, 1970, p. 3). For example, improvising was prioritised more than reading music. Underpinning the creative music projects by Paynter and Aston in the 1970s were

changes in the wider schooling system. Initiated by Bruner's new constructivism of the 1960s, it was the start of "child centredness" in schools.

2.2.1.2 Earliest lessons in reading-readiness

Donington (1983, p. 8) warns against "the great and constant danger" of training the eye before the ear. Teaching children to relate notation with the piano keys results in "eye to hand" learning, which omits the "aural sense." She judges the constant temptation for training the eye before the ear as "the death of all intelligent sight-playing or memorizing." McPherson and Gabrielsson (2002) support this view:

> A curious contradiction in music pedagogy is that teaching practice is often in conflict with theories of instrumental teaching about how to introduce notation to a child. Whereas most children learning an instrument in Western styles of education are introduced to musical notation from their very early lessons, prominent instrumental teachers throughout history have advocated that ear playing should be emphasized before the introduction of notation. (p. 99)

Prominent instrumental teachers throughout history who advocated ear-playing include Johann Heinrich Pestalozzi (1746–1827), Lowell Mason (1792–1872), Yorke T. H. Trotter (1854–1934), Shinichi Suzuki (1898–1998) and Edwin Gordon (1927–2015). McPherson and Gabrielsson (2002) warn against the danger of prioritising "notational skills too early," as it can give rise to "a decreased sensitivity to the unified patterns that children spontaneously observe when listening to music" (p. 113). They recommend an integrated approach, teaching beginners to play by ear in order to prepare them for music reading.

Uszler (2000, p. 244) notes that children require concrete musical experiences before learning to read music rather than putting "the cart before the horse." Similarly, Azzara (2002b) argues that for music to become meaningful to children, they first need to experience it before reading it. Children who learn to play by ear in early childhood develop a wide musical vocabulary and an affinity for expressing music that becomes habitual (Azzara, 2002b; Mainwaring, 1951a; Schleuter, 1997). Dalby (1999, p. 25) describes learning to read music as "recognition rather than decoding … students can begin learning music notation without knowing letter and time-value names." She endorses deciphering unfamiliar patterns through recognising and comparing them to familiar patterns, rather than using note-names. Likewise, Schleuter (1997, p. 63) views the emphasis on reading music as the cause

of many learning difficulties, with "the symbols being only fingering cues rather than sound cues." Woody (2012, p. 85) supports this view and finds pianists, more than any other instrumentalists, are prone to "earless" notation reading. Unlike other instruments, every pitch of the piano has its own distinct key. Students' visualisation of notated music and fingerings can easily bypass the aural process of anticipating notes before playing them. He suggests that possessing an inner model of how the music should sound leads to proficient ear-players. Thereafter, students do not need to depend only on reading notation to anticipate the notes.

The Suzuki approach for very young children uses sequenced rote learning of incremental Suzuki repertoire with repetitive listening and imitating. Children internalise the songs similar to learning words (Bigler & Lloyd-Watts, 1998; McPherson & Gabrielsson, 2002; Uszler et al., 2000). Rote learning involves the teacher modelling for students as they observe and imitate the teacher's fingerings. Observing the teacher and rote learning prepares children for reading music by helping them understand how music is constructed and notated, e.g., grouped in intervals, chords, and patterns. The link between the visual and the aural supports them in reading music more fluently (Cathcart, 2013; Harris, 2007). Frances Clark (1992) explained "rote-notation" as rote teaching moving to the next teaching process promptly. "The rote experience prepares for and leads to the essential reading skills that follow" (p. 66). Musco (2010) highlights the necessity of distinguishing between teaching how to play by rote and by ear. Rote teaching is a precondition for learning to read music and ear-playing. However, "it is not necessarily synonymous with playing by ear and ought to be differentiated from it" (p. 50). She suggests the teacher should refrain from modelling for students learning ear-playing. It prevents them from imitating fingerings and depending on learning by visual rather than aural means.

Robert Harris (2007) compares learning music reading to learning a language by applying four literacy phases. These phases include pre-literacy playing by ear, reading-readiness, reading and writing music, and advanced literacy in theory and composition. Reading readiness enables beginners to identify musical elements that have already been intuitively experienced prior to reading music. He notes reading readiness means pupils "differentiate and label the musical structures" they can

already instinctively control (p. 69). For example, recognising a tune ascends is a precondition for learning to play the tune rising upward.

Cathcart's (2013) eight-month online 2010 UK piano teachers' survey considered the musical skills beneficial for children to have positive musical experiences. The survey enquired into the pedagogies, beliefs, values, and attitudes of piano teachers teaching young children (2013). There were 595 responses. Data analysis entailed a sequential mixed data method of one approach informing the other. The researcher also used Statistical Package for the Social Sciences (SPSS) for an analysis of responses to open-ended questions. She analysed shorter answers via content analysis and more comprehensive responses via grounded theory's constant comparative principle. The study shows a high dependency on the most widely known and oldest approach, "the Middle C model" (p. 224). This approach begins with both thumbs on the "focal note" middle C, from which all other notes are located. The five-finger position emanates toward the fifth finger. From the outset, the approach introduces hand positioning, bar lines, rhythm and pitch notation via metric counting (Cathcart, 2013; Uszler, 1992). Cathcart found 65% of 595 piano teachers who responded to her online piano survey used and preferred this approach. The sample size is not, however, representative of the population of UK piano teachers, as it is only a small proportion of them. She argues that the emphasis on developing notational skills causes several problems for beginners. It "engenders a narrow view of playing the piano" because of the absence of improvising and ear-playing (Cathcart, 2013, pp. 383, 402). Knerr (2006) maintains teaching beginners middle C as the central note, and only utilising the approach's limited notes in the middle register of the piano rather than the whole piano, restricts the space between the torso and arms, which inhibits movement and results in stiffness.

2.2.1.3 Complementary aural-reading skills

Problems emerge when students have been taught either entirely by ear or by reading music. As a result, they require upskilling in one or the other (Hallam, 2012). Hallam's point aligns with Green's (2014), who argues when learners only play by ear, they cease trying to read extensive repertoires of notated music. There are two sides to this. On the one hand, those who only learn music from notation cannot fully access oral traditions of music and its repertoire. Contrariwise, only accessing music

through playing by ear without being able to read music potentially denies full access to the genres and repertoire of those other music traditions, e.g., Western classical music. Hallam (2012) acknowledges there is no perfect way for teaching and learning an instrument. She suggests integrating aural and reading skills, whereby the former prepares for music reading, achieves a balance of both skills, and provides learners access to broader musical genres and repertoire (Hallam & Creech, 2010; Hallam, 2012). Both skills can coincide and complement each other (Cathcart, 2013; Hallam, 2012; Hill, 2019; McPherson & Gabrielsson, 2002). Coats (2006) suggests ear-playing "is an excellent reinforcement for reading music because it develops good habits of thinking about multiple concepts" (p. 127). Hill (2019) claims the degree to which pupils experience "oral, notation-based, or combined learning methods" impacts "their development of different skills as well as their relationships with music" (p. 50).

2.2.1.4 Singing in piano learning

Solmization began with Guido d'Arezzo's system of designating notes with syllables drawn from monastic education. Sarah Anna Glover (1786–1867) invented the Tonic Sol-fa method (Southcott, 2004). The system aimed to familiarise beginners "with the aural effect of note relationships" (Rainbow, 2014, p. 1), rather than reading notation prematurely. Her book *Scheme for Rendering Psalmody Congregational* (Glover, 1835) inspired John Curwen (1816–1880) to adapt her anglicised sol-fa names and letters. He made the method more concise and simpler for teaching music to beginners in schools and singing in choirs. Southcott (2004) notes Curwen promoted the Tonic sol-fa method, which was founded on Sarah Glover's teaching approach. It was expected to support "in worship and in missionary efforts, whether to the poor of England or the indigenous peoples of many lands" (p. 17). Zoltán Kodály (1882–1967) also adapted the method as systematic solfège training for improving students' singing. He considered it optimal for musicianship because singing is the simplest way to train the ear and offers an immediate experience of music (Houlahan & Tacka, 2008).

Frances Clark (1992) suggests students should consider singing as an essential means of piano learning. Beginners who are required to sing from the earliest lessons are less likely to become uncomfortable or self-conscious about singing

thereafter (p. 100). Singing-readiness exercises such as humming, chanting, or whistling may seem less intimidating, and acclimatise beginners for singing. Teachers can create a safe place for students to take risks and become confident singers and accomplished musicians (Lennon & Reed, 2012). Robinson (1996) affirms those instrumental teachers who "overcome their reluctance to incorporate singing activities" and ease students' fear of singing in front of others to encounter "more efficient and enjoyable music learning experiences" (p. 21). It assists in training a generation of musically active and literate people.

McPherson and Gabrielsson (2002) believe that singing ought to be ingrained as a regular component of initial instrumental lessons. Solfège underpins the process. Singing internally or aloud is beneficial because it helps establish "a correct mental model that can guide children" (p. 110). Beginners can then convert what they memorise into fingerings required to play an instrument. However, some very skilled instrumentalists have internalised pitch yet cannot sing well. Having a beautiful voice is unimportant for playing by ear. Prioritising singing helps pupils discriminate pitch. Moreover, singing ensures one can discriminate between two consecutive pitches, even when not singing perfectly in tune (Morrison & Fyk, 2002). Cathcart (2013, p. 23) also argues "learning instruments is easier if preceded by singing and the development of an active and discriminating ear." Singing leads to internalised singing, playing by rote, and playing by ear. It is the instrument we all have access to.

Duke and Byo (2012) claim beginners benefit from singing many simple songs from the vast array of the music repertoire and genres. They argue that limiting instrumental learning to a specific genre, tempo, or musical emotion tends to disadvantage beginners. Azzara (2002b) and Dalby (1999) concur and consider singing, playing many melodies and bass line "root melodies," connecting melodies to bass lines as helpful for beginners to anticipate harmonic progressions. Learners gain an overall view of the music. These authors argue linking singing with playing is best practice for developing musicianship.

Musco (2006, 2010) claims teachers cannot proceed from singing to ear-playing because tutor books like *Jump Right In* (Grunow et al., 2001) do not explain the method in concrete steps. Her claim is misplaced because the *Jump Right In*

Teacher's Guide (1999) allocates 45 pages of text on the rationale, content, practical considerations, theory, and teaching procedures. The "special teaching procedures and techniques suggested for implementing the lesson plans in the *Teacher's Guide*" (p. 16) starts with singing rote songs in neutral tones, singing the lyrics, and playing melodies and bass lines, which I will discuss in Chapter 3 (Section 3.2). All tutor books have their limitations. The *Jump Right In instrumental* series books enable teachers to adapt the tutor book to individual and international contexts.

Dalby (1999) suggests singing is fundamental for musicianship. To play musically, students "must learn to sing through their instruments" so that they can play them "as an extension of the mind's inner audiation instrument" (p. 22). Although singing is important for learning an instrument, Dalby's suggestion is unsupported by credible empirical evidence. Indeed, many professional-level instrumentalists are poor singers. Azzara (2002b) also relates a musical instrument "as an extension of the human mind, body, and soul" (p. 20). The skills required to play the piano should remain in the context of students' musicianship. He promotes singing and movement as a necessary part of the learning process for piano playing. Transitioning from singing to playing piano is easier to do if children sing during their early childhood. Dalby (1999) refers to Edwin Gordon's "audiation" of silently "hearing music in the mind" (p. 22) and advocates singing for expressing internal music and musically shaping phrases. Both Dalby and Azzara endorse singing as best practice for developing musicianship so that children can express their inner musicality outwardly. I agree with Dalby and Azzara that singing is productive for musicianship. One does not need to sing to become musical, however. Singing helps pupils learn to play by ear and helps the teacher to support them. As the teacher cannot hear pupils' inner hearing, singing reveals how they are progressing and how to support them.

2.2.1.5 Developing solid foundational technique

Some authors critique the effects of allowing playing by ear to fall behind other skills. The British music psychologist James Mainwaring researched the acquisition of ear-playing skills (Mainwaring, 1951a; McPherson & Gabrielsson, 2002). He disputed prioritising technique and virtuosity, which he believed "cannot be properly regarded as constituting musical ability at all" (1931, p. 181). Leech-Wilkinson (2018) argues

classical music is tormented by dilemmas of conformity including virtuosity that results from competitions and "enshrines and glorifies a particular set of habits" (p. 560). He suggests we learn from "historical virtuosity" that inflicts anxieties on musicians, by deprioritising this virtuosity until such time as music practice becomes part of broader "socially and politically … acceptable approaches to being musical" (p. 561). Mainwaring (1951a) argued that associating notated symbols with playing tones results in mechanised actions. It might lead to virtuosity but the performer depends to a great extent on learning from the score or memorising:

> The visual symbol evokes an image of the sound represented and stimulates the action necessary to produce the sound. The sound can recall the symbol or stimulate the action. The action or its image produces, respectively, a known and expected sound or the image of the sound and can recall the symbol. With this consummation every class of musical performance is possible. Without it, only instrumental reading and kinaesthetic memorization are possible. (p. 201)

The "sound-action relation" involves learning how to aurally anticipate sound (Azzara, 2008), and establish "ear-to-hand coordination skills" by rote initially, and then by ear (McPherson & Gabrielsson, 2002, p. 110). This process also provides a basis for beginning to teach notation. Together, Mainwaring and Regelski appear to be closely linked in their views regarding piano teachers' emphasis on reading music and technique at the expense of aural skills (Mainwaring, 1951a; Regelski, 2007). Regelski (2007) compares the needs of most learners with the needs of those pursuing a concert career:

> Typical piano lessons … are often structured and conducted as though leading to concert careers. Thus, from the first, students are subjected to the discipline of technique-building exercises and to the warhorses of the Classical repertory. If, on the other hand, instructions were designed to nurture amateuring, lessons would feature a wider array of musics and their related musicianship skills; and students would not become so tied to notation that they could not improvise or play by ear. Sight reading and accompanying would also be involved since, in addition to developing wide-ranging musicianship and a good ear, such skills directly support amateur musicking opportunities—opportunities pianists are far more likely to encounter in their lives than the concert stage. (p. 35)

Regelski highlights the dangers of teaching piano in a way that overly ties students to notation, which impairs their potential for playing by ear and improvising. Teaching children within the UK state education system may mean the aim is to foster aesthetic awareness, creativity, and nurture social skills, rather than seeking to generate accomplished performers. Technical skills are also necessary for amateur

music making and tactile awareness, although not to the extent as for professional musicians.

McPherson acknowledged that curricula worldwide have implemented more aural and creative music making than before (McPherson, 1995a). He attacked, however, the emphasis on technique and music reading and urged instrumental teachers to recognise the shortcomings of the notation-based approach. Kochevitsky (1967) pointed out the urgency of making the link between the "visual-auditory-motor" (rather than the usual "visual-motor" response) in the beginning stages of piano learning. The visual stimulation "should go through the auditory center and only then provoke the motor response" (p. 23).

Authors on piano technique (Tobias Matthay, Otto Ortmann, Abby Whiteside, Arnold Schultz, William Newman, George Kochevitsky) agree that piano learning requires an enormous effort for improving technique. They hold the view that students who wish to become accomplished performers must hone their performance skills to high standards over a prolonged period. Hallam (2012) notes "to attain even moderate levels of expertise" necessitates a commitment to practice, especially for "complex motor and cognitive skills to become automated" (p. 653). Hallam and Creech (2010) argue instrumental teachers deliver "very high levels of detailed formative feedback of the kind that teachers in other subjects are currently being exhorted to deliver" (p. 94). Knerr (2006) claims "expressing music without a solid technical foundation is difficult" (p. 428). Practice and technique are important for performing a piece of music well. This does not mean that someone must develop technique through reading notation. Some accomplished performers achieve technical virtuosity in other musical styles, which rest on oral traditions of learning (i.e., who do not use notation). According to Camp (1992), "physical problems tend to disappear if approached from an aural standpoint rather than from a notation one" (p. 14). Whether technique should be the focus depends on the students we teach and the parameters of the prescribed curriculum within which we work. It also rests on the aims of music education within the school or other context.

2.2.1.6 Integrating aural, theory and performance
Formal music learning, curricula, and assessment, vis-à-vis the development of musicianship, often results in a disconnect between theory from practice. This

separation of aural, theory, and performance may persist throughout music studies. Teachers might expect students to make the connections between different syllabi. However, in my experience, even competent students who have studied piano for a decade can struggle to play music by ear if they have not had the training earlier in their studies. The impact of the theory-instrument disconnect means the aural learning pupils experience in theory classes is divorced from what they learn in instrumental lessons. Furthermore, the two are considered separate areas of learning. Even the music studies of undergraduate students are compartmentalised by keeping aural-theory-performing dimensions separate (Harris, 2007). According to Cox (2007), this leads them to prioritise technique and tone production and restricts musicianship.

The aural theory and instrumental learning disconnect is replicated in the graded examination system, including the Royal Irish Academy of Music (RIAM) and the ABRSM. Aural skills are taught within instrumental lessons as a separate undertaking from performing repertoire pieces. ARBSM examination candidates must obtain Grade 5 Music Theory exam as an add-on before they can perform the practical exams of the higher grades. Its purpose is to promote a comprehensive understanding of the components of music for competent performance in the higher grades. Often, students only begin music theory learning as they approach their Grade 5 practical exam date, with only a few weeks to prepare, taught by a different teacher. Students might gain more holistic and effective music learning through integrated aural-theory-performing dimensions. Elliott (1995) recommends integrating theory and practice so "music teaching and learning would become more effective and educative" (Elliott, 1995, p. xviii).

Robert Harris (2007) critiques the acceptance of the disconnect between music theory classes and instrumental lessons. Instrumental teachers teach students technique and interpretation unrelated to their theory level. Theory teachers teach students aural and theory without knowing students' performing competencies. He recommends that teachers from both departments consult with each other to promote an integrated curriculum. It should be adaptable for the diverse range of student abilities and support their aural, reading and writing music. Teams of instrumental, theory, and ensemble teachers could support theoretical analysis of repertoire. Parsonage, Fadness and Taylor (2007) argue that "it is the role of the

conservatoire to provide an environment where creative interaction can take place"
(p. 310). Harris (2007), Jorgensen (2008) and Woody (2012) suggest students will
regard playing by ear as unimportant if teachers do not teach it. Contrarily, teachers
who value and use aural skills can demonstrate orchestral excerpts by ear or
improvise cadenzas and become role models who inspire students to do likewise.

There are challenges with providing this holistic model linking theory with practice
and synchronising cross-curricular music endeavours. The logistics of coordinating
students with teachers' differing timetables from different faculties is problematic. So
too are teachers' differing full-time and part-time casual work contracts. Most music
lessons take place after primary and secondary school hours. Some music teachers
work as freelance musicians and may teach in the afternoons, evenings, or
weekends, all of which make curricular integration difficult.

Students need help with connecting their aural theory and instrumental learning
(Harris, 2007; Parsonage et al., 2007). Several authors consider a one-size-fits-all
curricula as deficient, i.e., one geared mainly toward the gifted elite becoming
concert players who are tied to notated music reading. The curriculum in specialist
music schools usually priorities technique and the classical repertoire. According to
Cope (1999), it does not acknowledge "children's own musical interests and cultures"
(p. 62). He suggests a more functional approach for teaching the majority average
learner entails developing a wider array of skills that include improvising, playing by
ear, transposing and accompanying (Cope, 1999; Duke & Byo, 2012; Green, 2002).

2.2.2 Aural skills that defy measurement

Davidson and Jordan (2007) note the high value music teachers place on linear
progression via the graded examination system for which the authors have some
misgivings. Conservatoires use criteria to assess performance, which include four
key competencies: technique, interpreting, expressing, and communicating music
(McPherson & Schubert, 2004). Pratt (1998) argues the educational system that
insists on measuring progress conflicts with the study of music, as it "is often very
subjective and defies precise measurement" (p. 1). External assessment tends to
focus on capturing learning gains according to criteria that can be objectively
assessed. It comprises end-of-year school exams, instrumental grades, concerts,

and competitions. However, there may be more challenging aspects to musical accomplishment to capture through a system of testing. More easily assessed competencies comprise accuracy of notes, rhythm, dynamics, tempo, sightreading, and technique. The more challenging judgements to make through a test are interpretation, playing by ear, composing, improvising, creative and interactive skills (Fautley & Colwell, 2012; Parsonage et al., 2007). The context determines which competencies are prioritised. Fautley and Colwell (2012) argue:

> That which is deemed important, but hard to assess, should not be omitted at the expense of that which is easy to assess, but less important (p. 490).

Improvisation and playing by ear could become important skills within the context of developing broader social keyboard skills. Pratt (1998) warns against the easier aural assessing of pitch, cadences, modulations, harmonic progressions and rhythm at the expense of expressive competencies of "dynamics, timbre, texture and structure" (pp. 1–2). The content and approaches of training and evaluating do not match the goal of developing functional musicianship. Aural skills that are convenient to assess dictate which aural skills are taught. For example, the convenient skills that are assessed in the early grades include clapping back the examiner's two-bar rhythm as a memory test, singing a two-bar melody, sight-singing a phrase. Being able to identify articulation, pulse, tempo, and dynamics are also tested. We exclude competence in improvising or *playing* a melody and bass line by ear.

Learning and progress are not always linear. According to Small (1996), learning is multidimensional rather than linear. Our learning "is much more like a network or the assembly of a jigsaw puzzle than any straight-line succession" (p. 188). We find linear pedagogy in traditional Western approaches that involves teaching via a "logical sequence, often termed a 'push' method" (Crawford, 2014; Ircha & Balsom, 2005). Although linearity may suit many teachers and students, some students may not be "logical, sequential thinkers," and find linear learning suppresses their creativity. Crawford (2014) argues that "authentic learning has been identified as non-linear, self-directed, natural, valued and resembling the natural processes of real life" (p. 60). The "whole-person phenomenon must be applied" for meaningful learning that impacts students' lives and equips them to address the needs of contemporary society (p. 54). "Pull-based" non-linear learning enables students to

learn that which interests them, potentially leading them to being more engaged and motivated in lifelong learning.

2.2.2.1 Graded examinations in the UK and Ireland

Performance-based syllabi constrain teachers and learners, as reported by Cathcart (2013). She urged examination boards to promote more holistic teaching approaches. Taaffe (2014) disapproves of how the "graded examination system defines curriculum from beginner to professional, with the paradigm of the concert musician" (p. 140). Many private teachers outside Irish specialist music schools use the RIAM and ABRSM examination boards to determine the standard and repertoire. Consequently, they may become "followers of curriculum" rather than "curriculum makers" (p. 196). Marie McCarthy (1999a) shares how competitions and the graded exams influence music education in music conservatoires in Ireland:

> Competitions and graded examinations … illustrate clearly what can occur when music is passed on in institutional settings: common repertoire (e.g. set works and performance pieces, national syllabi) is chosen by authorities who are frequently unknown to teachers and students, precise standards are set, various aspects of music are compartmentalised, each having its own set of evaluative criteria, uniformity is expected in performance, and there is minimal consideration given to individual creativity, critical judgment, or musical innovation. (p. 22)

The uniformity of graded examination repertoire leaves little room for playing by ear or improvisation. It ensures the system does not change through the generations. Besides, instrumental teachers are reluctant to deviate from it (Deloughry, 2014).

Some examination boards offer assessment of improvisation and other musical genres. Teachers might not use them flexibly and "teach to the test so their students can play examination pieces but little beside" (Davidson & Jordan, 2007, p. 737; Cathcart, 2013, p. 385; Fautley & Colwell, 2012). RIAM provides a series of three-month jazz piano courses for junior students. ABRSM offers graded music exams for a range of genres and launched its Jazz Piano exams in 1999. The criteria includes a contrasting programme of blues, standard and contemporary jazz styles, improvisation, technical exercises, quick study, and aural tests. According to Wright (2012), the take up of candidate numbers in its first few years stabilised:

> The 2009 statistics show that take-up of Jazz Piano, for example, has not advanced beyond the nearly 2,000 candidates of its first years. UK jazz exams had just over 4,000 candidates, which represented a much stronger take-up than in the rest of the

world. So, viewed only in terms of candidate numbers, the Jazz syllabuses might be said to represent a disappointing return on investment and effort. On the other hand, their availability and the quality of their supporting materials have made them an important learning resource for teachers and pupils. (p. 238)

Although the syllabus has not advanced past Grade 5, candidates enjoy the jazz pieces and the exam atmosphere more than other exam settings. Candidate numbers are unavailable for Ireland with little research on its impact.

Small (1996) explains the problem of syllabi further:

> The outward and visible sign of the subject is the syllabus, a table of contents which lays down what the student is required to learn and on what he is to be examined … in practice it equally effectively cuts him off from learning, since everything lying outside the syllabus is not examinable and therefore not worth teaching. The syllabus narrows the student's vision of knowledge and cuts him off from precisely those fuzzy areas at the edges of subjects that are the most interesting and rewarding … It is the freedom to make one's own connections, one's own subject, which coincides with one's own interests and needs, that is still missing … Each life has its own logic, its own fund of experiences and analogies, and no amount of outside direction can substitute for the inner logic of that experience. (pp. 186–7, 189)

Fautley and Colwell (2012) agree with Small and suggest that when test results are prioritised, it can lead to a shrinking of the curriculum and opportunities for learning. Taaffe (2014) also argues the graded examinations limit autonomy. Pressures from stakeholders and time factors constrain teachers who want to widen the curriculum to make a difference in students' musical lives.

On the flip side, a lack of the structured, graded examination system, highly valued by music teachers, might destabilise the conservatoire. Maintaining the prescriptive approach in music institutes facilitates evaluating all students' progress throughout their music studies. Nevertheless, according to Taaffe (2014), it promotes the successful student more than the wider student population. The approach enables the competitive auditioning of prospective students for limited places and supports those most interested in attaining high standards who might wish to pursue music careers. Such a system, however, may backfire on conservatoire teachers, as it restricts them from adapting to the diversity of their students.

2.3 The dropout

Cathcart's UK online survey (2013) confirmed the major dropout rate of pupils by Grade 1 when their enthusiasm dissipates because of a mismatch between expectations and lesson content. Chronister (2005a) claims "children lose their enthusiasm about piano lessons for two reasons: practice takes too long and is confusing; playing the pieces is no fun" (p. 47). Davidson, Sloboda, and Howe (1996, p. 41) also argue that "it is very hard for children to invest large amounts of time and effort in musical learning in complete isolation." Likewise, Green (2002) claims disciplined practice and an emphasis on technique via linear progression, such as the graded examination system, are counterproductive for some children who find it punitive and causes them to cease lessons.

Duke and Byo (2012) regard technique as a precondition for competent performance but question the amount of preparation required "before the music begins" (p. 714). Prioritising technique above other skills redirects children's original reasons for learning music. These authors argue the time and effort spent working on the basics of posture, technical exercises, and reading notation delays children from expressing themselves through their music making and is a major reason they discontinue. Prioritising technique and sightreading can put success out of reach for some and reduce their motivation. Taaffe's study (2014) found parents' views and students' experiences showed inconsistencies between what they expected from instrumental learning and the realities they encountered in lessons. Learning was seen as irrelevant to students' lives "outside of lessons" (p. 206). She recommends teachers' shared involvement "with students, parents and the wider community" to further students' musical interests. Cope and Smith (1997) argue the level of commitment required for instrumental learning is higher than for other school subjects, and beyond what some children want to give. Cope (1999) suggests a reasonable and workable goal is to develop competencies that require only moderate amounts of time devoted to practise. Fisher (2010) contends that "there is no magic wand that can be waved to become a competent sight-reader" (p. 129) without committing to "the required practice time" (p. 179). The above authors highlight the limitations of learners' practice time, which conflict with disciplined practice routines. In my experience in the context of a music school, the required practice time increases as students endeavour to progress through the grades and often conflicts with their

mainstream school studies. Bringing ear-playing into the centre of one's practice can make piano learning easier, more fun, and a relief from learning through notated music. Wider musicianship skills might enable more children to experience success and remain motivated.

2.4 Aural studies in Australia and the USA

2.4.1 McPherson (1993) five performance skills

McPherson's studies explored children's acquisition of distinct aspects of instrumental skills. His theoretical model (1993) comprised five types of performance skills. They encompassed aural (i. memorising, ii. playing by ear), creativity (iii. improvising), and visual (iv. performing rehearsed music, v. sightreading) orientations (Azzara & Snell, 2016; McPherson, 1996). The purpose of the ear-based musicianship study was to test the following theoretical model:

> that an ability to perform rehearsed music proficiently and improvise, will be influenced by the capacity of an instrumentalist to perform music by sightreading, from memory and by ear (p. 83).

Students aged 13–16 years, 54 of whom played the clarinet and 47 played the trumpet, responded to four questionnaires, which were used to identify and test variables. A sample of 101 secondary students across Australia were assessed in the five skills via test batteries, in 1990. The researcher used a standardised achievement test called the Watkins-Farnum Performance Scale to assess the *sightreading* skills of students who played band instruments. It comprised "a series of sightreading exercises ordered according to increasing difficulty" (Lillya & Britton, 1954, p. 174). To test *aural and creative* skills, he developed a series of tests of the ability to play by ear, play from memory, and improvise (McPherson, 1993). He identified playing from memory as an aural skill that involved learning music *after* learning it visually and memorising motor habits. The memory test entailed a short practice item and four test items with twenty seconds of silent preparation allowed for the first two tests. The third longer item included musical expressions and allowed one minute to prepare before reproducing it by memory. For the last item, the student rehearsed a melody test four times prior to playing it twice to see if it improved the second time.

Playing by ear involves imitating soon after hearing the music, transposing it to other keys and the long-term memory (McPherson, 1993). The researcher chose *God Save the Queen* as a practice test. He selected the short songs *Happy Birthday* and *For He's A Jolly Good Fellow* in two different keys for the actual tests. Students were asked to sing the test songs silently prior to playing them. They were also asked to listen to a short phrase four times in F major. Then they imitated it at the same tempo, with similar phrasing and expressions, and transposed it to G major.

Testing the ability to improvise involved improvising five items: (a) a closing phrase that sounded finished and complimented the opening phrase; (b) on a given rhythmic pattern whilst "manipulating pitch in such a way as to fulfil the stylistic requirements of the task"; (c) on a short introductory motif for at least eight bars, developing, extending, elaborating, repeating, inverting, transposing, augmenting or diminishing it; (d) a response to an accompaniment in C major; and (e) in a "freely conceived style" whereby students plan their own "set of internally generated parameters" (p. 129). The research found the best approach for learning an instrument is an effective balancing of the five performance skills. Under-developing any of these skills impoverishes the learner. The study highlighted the value of acquiring the skill of playing by ear for learning how to improvise and sightreading for performing rehearsed music. It challenges assumptions that improvising or playing by ear seldom produces competent sight-readers. Based on this research, McPherson contends students should always have opportunities for both aural and creative learning in lessons.

2.4.2 McPherson (2005) children's mental strategies

McPherson's three-year study enquired into why some beginners' music studies progressed more easily than others and to what extent progress was sequenced and methodical. The research aimed to examine how much time children practised. It also sought to explore the strategies they used to determine how their mental and physical skills affected their overall performance development. The study advanced research on the benefits of children starting school who improve their ear-eye-hand coordination by learning broad music skills, e.g., music reading, playing by ear, and improvising. Traditionally, students' progress is measured by their performance of practised music, which emphasises music reading. This restricts children's learning

strategies and holistic musical development. Comprehending their thought-processes during aural and visual tasks helps educationalists understand why some struggle and others do not.

157 beginner instrumentalists aged between seven and nine years, from eight primary schools in Sydney, Australia, were interviewed prior to beginning lessons. They were tested in the five performance skills each year for three years. Ten interviews of their mothers took place by phone in relation to their child's accrued practice over the three years. Findings revealed visual skills showed the strongest improvement. Aural skills, especially improvising, trailed behind. By the third year, there were very wide differences. Those who struggled from the outset discontinued lessons (McPherson, 2005). The study's key findings suggested that those who continued utilised strategies that resulted in more opportunities for success. Ear-playing strategies ranged from determining whether the contour of a melody ascended or descended, chanting the rhythm, using fingerings, playing the music with recordings, and achieving well-developed ear-hand coordination. Playing by ear improved for those who learned two instruments, due largely to the overlap of music learning.

The findings of this study help us understand beginners are not always aware of their mistakes or how to resolve them. Those who use musically suitable mental strategies in the early stages of learning can progress and succeed compared with others. Developing broader skills enables more varied strategies and the ability to perform effectively as musicians. Instructors could adopt "explicit, teacher-led instruction in mental strategies" (p. 29). Strategy instruction helps children improve rather than react to mistakes. Teachers can improve instruction by understanding pupils' thoughts on their difficulties, getting them to think out loud after attaining tasks, asking how they feel when doing tasks, whether their method works, if not why not, whether they could teach it to someone else, and enabling their chosen strategies. Zhang, Schubert and McPherson (2020) note today's perspectives consider ear-playing and improvising as vital for musicianship, and endorse including them in music learning.

2.4.3 Bernhard (2004)

Using traditional tutor books of melodies, Bernhard's study (2004) examined the impact of tonal training. He defined tonal training as using "vocalization and solfege syllables to emphasize sensitivity to pitch relations, in the development of instrumental performance skills" (pp. 91-92). The researcher taught 45-minute band classes twice a week over ten weeks in the USA. Forty-two 11-12-year-old beginner wind instrumentalists were randomly assigned to either control or experimental groups. The experimental groups learnt melodies via imitating the teacher-researcher singing a neutral tone "loo" and singing in solfège, playing by ear and reading music. The control groups learnt the music by reading notation, using letter names and fingerings.

Each participant's tonal aptitude was tested via a section of Delzell, Rohwer, and Ballard's (1999) *Measurement of the Ability to play by ear (MAPE)*. They had to imitate 48 melodic patterns, which were recorded. Participants' sightreading attainment was measured via adapting Grutzmacher's (1987) *Melodic Sight Reading Achievement Test (MSRAT)* as they sightread 25 melodic patterns. The impact of tonal training on participants' melodic ear playing and sightreading attainment was determined via a multivariate analysis of covariance (MANCOVA). The experimental groups attained higher marks at playing by ear than the control groups. Post-analysis univariate ANOVAs showed "a statistically significant effect regarding *MAPE* scores, but not regarding *MSRAT* scores" (p. 99). The study corroborates McPherson's findings "that melodic ear playing and sight reading are closely related skills" (p. 103). "Positive relationships" might also occur between tonal ability, playing by ear, sightreading and prior experience of playing another instrument, in particular the piano (p. 104). Developing sensitivity to pitch relationships by singing in neutral tones and solfège via traditional tutor books of melodies had a strong effect on the ability of beginner wind instrumentalists to play by ear. Bernhard suggests there is potential for teachers to teach ear-playing as part of traditional instrumental tuition.

2.5 Aural studies in the UK and Ireland

2.5.1 Lucy Green's Musical Futures

The sequence of events of how the Musical Futures project originated began with Professor Lucy Green's study of popular musicians' learning practices, and her book *How Popular Musicians Learn* (2002). She became the pathfinder for a Paul Hamlyn Foundation project in music classrooms. Her work on informal music learning was part of the wider Musical Futures project, which began in the UK in 2003 with an action research project. The aim was to explore innovative ways of engaging students in meaningful and tenable music activities in Nottingham, Leeds, and Hertfordshire, where Professor Green led the research. It involved Local Authority Music Services, universities, the music education sector, and classroom teachers who adapted teaching and learning strategies. Green reported on her part of the Musical Futures in the book *Music, Informal Learning and the School* (Green, 2008). It focused on work in classrooms rather than instrumental teaching contexts. As a result, the UK national music education programme expanded by enabling secondary school music students to learn how to play by ear through copying audio recordings.

The "rationale" for the pedagogy in her instrumental project was: the introduction of ear playing of which students might be unaware; the enhancement of aural skills; the development of a skill upon which students might build at home, thus potentially raising learner autonomy and motivation; opening a doorway to self-selected music and informal learning; allowing students to approach a range of music more creatively; and offering instrumental teachers the opportunity to encounter and reflect on new ways of teaching and learning. Green devised key components of the informal learning pedagogy, which entailed: music the learner selected by him- or herself; copying audio recordings by ear without notation; self- and peer-directed learning, typically in the absence of adult guidance; holistically-acquired skills rather than those resulting from a curriculum progressing from simple to more complex material; highly-integrated activities of listening, playing, composing and improvising (Baker & Green, 2013).

2.5.1.1 Musical Futures in Ireland: Moore's pilot study (2019)

Inspired by the Musical Futures approach's increased student motivation and positive impact on enhancing teaching and learning in over six hundred schools around the world, Moore explored the approach in Ireland. The pilot study of Musical Futures in Ireland aimed to address a lack of research on informal learning in Ireland. Prospective openness toward Musical Futures in Irish schools had not been explored. Prior to implementing the Musical Futures pilot, students and secondary teachers relayed their views that lessons were teacher-led via teacher initiated learning. This put more of a burden on teachers to choose music that everyone could perform, when few students could play instruments, therefore listening activities dominated lessons. Familiar songs were reviewed too often, which resulted in a lack of motivation (also corroborated by teachers). Teachers and students found informal resources suited learners more, and resulted in the approach being more inclusive of diverse levels of performers. The case study approach comprised a survey questionnaire of students, interviews of music teachers and school principals, and focus groups of students.

The pilot study entailed three phases. The first phase involved establishing a network via a symposium, teacher workshops and shared Dropbox. Moore (2019) implemented the second phase in two primary and two secondary schools during one term. One secondary school was in Cork, the other in Dublin. The two primary schools were in rural Ireland, constrained by a lack of instruments and space. They hired a peripatetic teacher to teach music one day per week. The aim of the pilot study was to enquire into the extent that Musical Futures enhanced music learning, teachers' confidence and pedagogy, and complemented curricular plans. Teachers used the *Just Play* intervention, which comprised a bank of resources, including multi-media files of chord charts for different instruments, vocals and bass lines of songs. The third phase entailed "ongoing appraisal and feedback" (p. 245).

The collecting of data included audio-recorded lessons, lesson observations, secondary student questionnaires, teacher and principal interviews, and 11 student focus group interviews. Data were audio recorded, transcribed and analysed via thematic analysis. The focus group interviews of young primary school children proved difficult, because they found focusing on questions challenging. Results from the survey, interviews, and group focus groups highlighted the success of the

approach. Pupils learnt new skills, increased their confidence through their musical successes, and became more productive working with friends and by themselves. Teachers adapted the *Just Play* resource for learning Irish traditional music on the tin whistle. Some primary students preferred learning popular music to the tin whistle. The Musical Futures approach improved their listening and ear-playing skills. Cooperative peer teaching and peer learning occurred as students helped others catch up. Playing together developed their sense of camaraderie. Findings revealed "learning was reciprocal" and "a shared endeavour among peers" (p. 250). Students showed increased enjoyment and assurance in their newfound skills. The approach helped students to realise "their potential as musicians" (p. 253) and increased the confidence of generalist primary teachers in performance skills and understanding of music. It gave them more access to music for the benefit of primary children.

2.5.2 Ear Playing Project

Instrumental teachers began approaching Professor Green about how to adapt the *Musical Futures* classroom project for one-to-one or small-group instrumental teaching contexts. The *Hear, Listen, Play* handbook (Green, 2014) came from the work of the Ear Playing Project which extended *Musical Futures*. The aims were to establish the skill of playing by ear through listening to recordings and to determine the benefits for students and teachers (Varvarigou & Green, 2014). It equipped teachers for teaching aura skills via learning strategies and usage of curricular tools.

2.5.2.1 Green's ethnographic pilot study (2012)

Green's qualitative pilot study aimed to "implement and evaluate … new pedagogy through ethnographic research" (2012, p. 48). It involved observing 104 individual instrumental (piano, woodwind, brass, or strings) lessons. None of the fifteen Grade 2 to 6 students aged 10–17 had learnt to play by ear. While the researcher taught ear-playing, four teachers took on the roles of observer and co-teacher for 15 minutes of half-hour lessons. Data collection comprised fieldnotes, parent/teacher questionnaires, semi-structured student/teacher interviews, and a teacher meeting, which were audio recorded, transcribed, and annotated.

Analysis revealed four different learning styles that students used for "aural psycho-motor musical tasks" when copying recorded music by ear (Green, 2012, pp. 46, 60).

Learning *style* referred to learners' spontaneous way of learning besides their "intelligence, personality, gender, culture, and … motivation." Learning *strategy* referred to learners' responses that develop from experiencing the tasks. There were four learning styles of students' first responses when imitating a recording by ear. They entailed an impulsive style and a "shot-in-the-dark" haphazard style. Some students used a practical style of quiet playing while listening and comparing tones and phrases. Others used a theoretical learning style, asked questions prior to cautiously playing and avoided mistakes. The study noted learning strategies that were suggested by the researcher and teachers, which students practised at home. Some students used scales to determine the starting notes, which led to finding other tones. Other students held certain notes longer while listening to the recording and resolved various sections of the music at different times. With time, students improved their pitch and rhythm imitations. All students preferred learning both by ear *and* by reading. Green suggests that teachers have more pedagogical options for differentiating when they understand students' learning styles.

2.5.2.2 Ear Playing Project's aims and findings

Many instrumental teachers report that, although they are not "clones of their own teachers," their prior piano teachers influenced how they teach. Some teachers purpose to teach differently from their musical upbringing; pedagogical courses, books, and colleagues influence others (Mills & Smith, 2003). Often, those who wish to teach playing by ear do not know how to go about it (Musco, 2010). Classically trained music teachers have "little or no experience of ear-playing … teachers tend to base their approaches … on their own learning experience" (Baker, 2013, p. 293). Rather than a total replacement of formal approaches, Green's informal learning pedagogy supplements traditional methods. The components of Green's pedagogical model (Baker & Green, 2013) include students' choice of music and imitating recordings by ear. Teaching oneself and peer assisted learning excludes adult instruction or reading notation. Skills are integrated and acquired in a holistic manner rather than linearly, e.g., through listening, playing, composing, and improvising.

The researchers recruited 144 teachers for the project to teach playing by ear to 325 students over seven to ten weeks. They used audio recordings that included bass

riffs, classical pieces, and students' chosen piece. 63% of participants were pianists aged 5–63, from beginner to Grade 8 level. The aim was to introduce ear-playing via a broad range of genres and to support teachers teaching aural skills. Feedback involved semi-structured interviews of 13 teachers and 42 pupils. The researchers collected data via evaluative questionnaires from 54 teachers and 193 students. Findings revealed few students had learned to deconstruct music aurally into manageable chunks. They enjoyed ear-playing and found it surprisingly easy compared to what they had expected. Using ear-playing as "a template for approaching notated pieces" (Baker, 2013, p. 297) helped improve their sightreading. 80% of students preferred to learn music both by reading *and* by ear. Many teachers found teaching to play by ear offered them respite from prescriptive teaching. The researchers recommended longitudinal research of ear-playing with young children.

2.5.2.3 Baker and Green's case-control study (2013)

Baker and Green's study was a case-control experiment, as part of the Ear Playing Project (Baker & Green, 2013). It applied informal methods of playing by ear to the classical instrumental context in individual and small group lessons. The researchers aimed to examine the degree that there would be improvements in students' test results prior to and after aural tests. They triangulated quantitative and qualitative methods to include student-parent questionnaires and interviews with comparative results from pre- and post-test scores. The Associated Board of the Royal Schools of Music assessment criteria were used to determine accuracy in pitch, rhythm, contour, tempo, closure, and overall A to E grades. Thirty-two Grades 1 to 5 participants aged 10–14 years included flautists, clarinettists, saxophonists, and pianists. They studied with one of four instrumental teachers in individual or ensemble group lessons. Playing by ear lasted at least 10 minutes per week, over a 7-to-10-week period. The teachers paired students of similar age, levels of attainment, and aptitude.

Key findings showed that "ear players" outperformed notation-players for each criterion (p. 154). Ear players internalised the tonal centre more fluently than the control group. They also played with better rhythmic accuracy and kept the pace while imitating the recording because of their improved critical listening skills. The

study highlighted the usage of audio recordings for learning how to play by ear as profitable for children and supportive of sightreading. Developing ear-playing and critical listening skills prior to reading music enables pupils to imitate teachers' playing. Greater fluency and rhythmic accuracy support sightreading, as ear-playing is part of sightreading, improvising, composing, and performing.

A small sample size of 32 students and four teachers limits the extent to which one can generalise the findings to other groups of students. The brevity of ten-minute lessons over a two-month timescale might affect the credibility of the findings, thus show positive statistical gains. It might also be easier to motivate an experimental group and the teachers, to make intensive progress with positive results in two months, more than in a longer study. A longitudinal study with lengthier lessons and more time between pre- and post-tests might account more reliably for students' realistic progress of playing by ear. It might also highlight the challenges associated with ear-playing.

2.5.2.4 Varvarigou and Green's phenomenological study (2014)
The purpose of this component of the Ear Playing Project was to explain the learning styles students gravitated towards when playing by ear in one lesson, based on Green's (2012) pilot study. It shed light on individual learning strategies that helped them accomplish the task. The study aimed to understand students' different learning styles and how they developed learning strategies. 75 non-beginner students' initial responses were observed while playing by ear from a recording. Fifteen teachers taught students aged 7–58 (mostly aged 11 to 14) of whom 70% were at Preparatory to Grade 2 standard. 76% played the piano. The researchers annotated students' musical notes. Audio recordings of students' comments, questions, and dialogue were transcribed and analysed via thematic analysis. Four judges evaluated students' musical responses and teachers' teaching behaviours.

Findings confirmed the earlier pilot findings. The majority (39%) of students used "shot-in-the-dark," 29% "practical," 25% "impulsive," and 7% "theoretical" learning style. The learning strategies they developed to improve ear-playing included listening without playing, playing isolated notes or up and down a scale, or playing with and without the recording. Some of them also used "dwell and catch up," focusing on the rhythm and then the melody. Students' initial anxiety about their

inability to play by ear dissipated as they became more confident. Most of them found they enjoyed it. The study found that playing with a recording can facilitate students' intuitive learning styles, which teachers may find beneficial. Few students sang or hummed the melody before or along with playing as a learning style or strategy, which indicated a lack of singing in instrumental lessons (Varvarigou & Green, 2014). Teachers noticed students increased their listening acuity and confidence by playing different musical genres, improvising and their enjoyment of playing by ear. By taking part in the project, teachers identified their own learning style. It also enabled them to discern their students' needs and tailor their pedagogical responses to individual students' needs.

2.5.2.5 Debate on tenets of Green's approach

Some scholars have countered these claims. The debate amongst practitioners and researchers on aural/informal/group methods has continued both in Ireland and abroad. McCarthy (1999b) argues, "the strength of music education in Ireland has traditionally been located outside the formal education system." To maintain a lifelong learning point of view and guide music education, educators need to consider:

> what is musically continuous in children's lives as they grow up and what they return to after formal school music education is over (p. 41).

According to Crawford (2017) the Musical Futures approach does not develop sightreading, thus narrows outcomes for students' musical learning experiences (p. 40). Mariguddi (2022) lists the various problems in Sweden concerning the benefits and limitations of Green's informal learning model. They include a lack of "genres, content, methods and inclusion" possibly because of the approach advocating "relinquished teacher control" (p. 450). Georgii-Jemming and Westvall (2010) believe "music education in Sweden has become relatively limited in terms of repertoire, content and teaching methods" (p. 21). A lack of regulating teaching strategies and curriculum content results in wide differentials in Swedish schools. Student musical taste, social development, pop and rock, and playing in bands is prioritised through listening and imitating music by ear. It involves peer and self-directed learning with limited teacher involvement. There is a lack of learning to compose, read notation, play other genres, such as Western Classical music, jazz, folk, or other cultures.

Methods and content are not recognised nationally for students who change schools. The researchers suggest broadening pupils' musical world via balancing informal and formal learning. A linear curriculum requires "repetition, continuity and practice aligned with a deliberately well-structured material that gradually increases in complexity" (p. 28), whereas a non-linear curriculum gives rise to difficulties with appraisal. The authors highlight the problem with valuing playing in bands more than the formal learning of playing an instrument. They contend informal strategies "do not necessarily result in motivation, participation and inclusion" (p. 29). Allsup and Olson (2012) query the informal teacher training of Green's approach and curriculum and how it benefits from teachers' content expertise (Allsup, 2008). They too suggest it should incorporate "both informal and formal learning while working with and across difference" (p. 17). It should be noted that Green also advocated students having access to both informal and formal music studies.

2.6 Ireland's history of oral musical cultures and music education

Oral culture was also the way traditional music was passed on through the centuries in Ireland.

> The old musicians in them days would take music from anything. They would take music from the sound of the sea, or they would go alongside the river at the time of the flood, and they would take music from that. They would take music from the chase of the hound and the hare. (Feldman, 2002, p. 98)

> I learned this [*Kerry*] *Jig* in early days from hearing pipers and fiddlers play it; and it has remained in my memory ever since … when I learned this tune [*Beside the Harbour*] from the singing of my grandmother, about 1850, she was then ninety years of age; and she told me that she learned it by hearing it played on the violin by her grandmother. Anonymous traditional musicians. (Joyce, 1909, pp. 18, 38)

Singing was a key part of social life when the Irish language was spoken in nineteenth century Ireland, so children had access to music in their everyday lives (Ó Madagáin, 1985). There was hardly "a form of human activity, literally from the cradle to the grave, into which song did not enter" (p. 131). Traditional Irish music was transmitted informally in former centuries, because of its genre's orality and connectivity to social communities. From the 1830s to 1900s, folk music and oral teaching methods were considered unsuited for children in schools. Occasionally, it became institutionalised during the twentieth century and took on many of the features of formal education while retaining some of its informal features (McCarthy,

1999a, p. 16). Several notation systems for teaching and learning traditional Irish music included letters, numbers, signs, staff notation, as teachers considered the sole use of one as ineffective. Teachers could not teach "both traditional and classical musical worlds, respect and develop the uniqueness of each tradition in formal music education," thus they transmitted them separately in schools (p. 104). As literacy developed from 1900 to 1921, so did the use of Tonic Sol-fa for transmitting traditional Irish music. The lack of materials, such as Irish produced tutor music books and Irish song repertoire, hindered its progress in primary schools, thus transmitting it orally prevailed.

2.6.1 Music curricula and education reports

Ireland's national education was established in 1831 to deliver basic literacy and numeracy (Walsh, 2016). Music began to be taught in 1842. "Initially this was structured to contribute to the provision of a foundation in education that promoted numeracy and literacy" (Stakelum, 2014, p. 409). The *Revised Programme* (1900) included broader practical subjects, such as singing, yet excluded consulting with teachers, parents, managers, or inspectors (Walsh, 2016). The 1900 music curriculum comprised a regimented approach with an emphasis on singing, songs, sol-fa, and staff notation. It restricted teachers' ability to be pedagogically imaginative or tailor the content to their environment (Stakelum, 2008b).

Cultivating singing in tune appeared to be alien to teachers (McCarthy, 1999a). District inspector Mr Gloster noted in the *Seventy-Eight Report* for the school year 1911-12:

> Singing is attempted … in the majority of the country schools much progress is not made, and a great proportion of the pupils, especially boys, are unable to sing (1913, p. 42).

Junior inspector Mr. T. Carroll of Armagh noted:

> Unsuitable grouping often delays progress in this subject. Almost 20 per cent, of the pupils in the section are classed as ' non-singers,' and receive little or no instruction. (1913, p. 140).

Music assistant Miss E. Gorman observed:

> The number of non-singers is greatly to be deplored. Teachers are too easily disheartened in cases of this kind. If the child does not show signs of musical talent after a few lessons, he or she (in defiance of the notes on the subject) is generally sent to some more congenial occupation, thereby barring all hope of the child ever developing an ear. My opinion is (one based, too, on wide experience) that there are few, if any, who cannot sing if taken in time, surely a child who can be taught to speak can also be taught to sing. Speaking and singing are simply a question of ear—the latter being a more exaggerated form of inflection. At the recent Easter examinations, I found candidates with apparently defective ear, but on giving them the required note, they sang it straight off, which proves the truth of my assertion, that it was not natural defect, but really want of early opportunity. (1913, p. 194)

The comments by these examiners a century ago highlight the problems associated with "non-singers" not singing in tune, unsuitable grouping, and a lack of instruction.

The 1922 revised primary curriculum prioritised a nationalist context of the Irish language, politics, and Catholicism. It was not child-centred and devoted much school time to learning the Irish language, which took time from other subjects (Walsh, 2016). According to Ua Braoin (1952), by 1939, music in primary schools made significant progress because of "a rational and detailed programme; stimulating and highly effective methods of teaching; annual Music Courses" (p. 37), which were attended by many primary teachers. From 1900 to 1970, music education became closely associated with singing the Tonic sol-fa, and "the provision of graded material for the acquisition of music literacy" (Stakelum, 2008a, p. 92). The 1971 music curriculum was established incrementally and implemented through singing songs, ear training, and reading notation with clearer pedagogical suggestions. It provided more freedom for teachers and pupils "based on a child-centred ideology" (Coolahan, 1981, p. 179). Teachers had more autonomy, but they lacked support for interpreting, assessing, and teaching the curriculum. They perceived it as intended for specialist music teachers rather than mainstream primary teachers, which undermined their self-efficacy and inhibited the use of other activities besides the curriculum (Herron, 1985; Stakelum, 2008b; Walsh, 2016). Music listening was not part of the curriculum until 1971, but even then, it was limited to European classical music (Department of Education, 1971; O'Flynn, 2002). It resulted in most children finishing primary school deficient in music education, other than songs learnt by rote. Stakelum noted "the first hundred years of national school music" promoted music notation "as a product" and eliminated any attention to the

process of playing music in schools. This perspective resisted change, despite the attempts of the 1971 curriculum that promoted "child-centred" and "active learning" (Stakelum, 2008b, p. 287).

Herron's *Deaf Ears?* Report (1985) noted that Irish youths were "grievously disadvantaged when compared with their European counterparts," thus had the worst of all European "musical worlds":

> The majority of Irish primary school children leave school musically illiterate, with little vocal or aural training and with a repertoire of songs that is usually learned by rote. As a consequence, they have no worthwhile basis from which to extend their repertoire, or to avail of music as a subject at post-primary level, the curriculum for which is anyway quite discontinuous with that at primary level. Primary schools have little or no money with which to buy instruments, and even if they had, a large proportion of teachers find difficulty implementing the primary school music programme and particularly the creative sections. (Herron, 1985)

Currently, the Irish education system comprises early years, primary and secondary schooling. Primary school ranges from infant classes and first to sixth classes for children aged five to twelve years. The 1999 music curriculum, still in force today, is less centralised and acknowledges all children as being musical and needing to be encouraged to express themselves musically. It marked a watershed in the history of music in schools in its democratising of music education. It "emphasises the importance of enabling all children to participate fully in a wide range of enjoyable music-making activities" (Department of Education and Science, 1999). The broader curriculum content comprised listening and responding, performing, and composing (National Council for Curriculum and Assessment (NCCA), 1999). Teachers are freer to adapt curricular content according to the school setting and their experience as curriculum-makers. The shift entailed a move away from skills and notational based approach toward a balance between process and product. Thus, children learn music prior to reading it. However, music learning is dependent upon the school, the principal, and the musical capability and confidence of the individual primary teacher (Deloughry, 2014; McCarthy, 1999b; Moore et al., 2019).

The debate on instrumental music education in Ireland amongst practitioners and researchers evolved over time. The MEND Report (*Music Education National Debate)* (Heneghan, 2001) emerged in response to Herron's report (1985) as a review of formal and non-formal music education. It highlights the many music

educators who contributed to the 1990s debate. Drury's Feasibility 2003 report found "whole regions of Ireland lack appropriate provision and hundreds of thousands of citizens are thereby culturally deprived" (Drury, 2003, p. vii). He affirmed the legitimacy of parents who want their children to reach their potential learning to play an instrument. This is unlikely for numerous children "without provision of access to a comprehensive, equitable, and publicly supported instrumental and vocal music education service" (p. 7).

2.6.2 National instrumental programme and teacher training

Following the previous reports (Herron, 1985; MEND 2001; Drury, 2003), Music Generation piloted a music education model in counties Dublin and Donegal, which resulted in implementing a national programme in 2010, established and co-funded by the U2 band. Other funders include The Ireland Funds, the Department of Education and Skills, and Local Music Education Partnerships. Its purpose is to provide a national system that "complements and enriches, but does not replace, the mainstream music curriculum provision of the formal education system" (*Music Generation Annual Report*, 2021, p. 3). It enables children and young people to access music studies across all genres in their local communities, with Music Generation teams teaching music both virtually and in-person (*Music Generation*, 2010). Conaghan (2022) commends instrumental projects, enhancing mainstream music education. Along with Drury (2003) and Fleischmann (de Barra, 2006; Fleischmann, 1952) however, she cautions that the non-regulation of instrumental teachers in Ireland puts parents at risk of accessing unqualified teachers across the country (p. 9). She reminds us that projects such as Music Generation (Thompson, 2009) work within a context that lacks a national body to regulate and register qualified instrumental teachers.

Although Irish Universities prioritise secondary school music teacher training at postgraduate level (Kelleher, 2018), there is a lack of primary school music teacher training and instrumental/vocal teacher training:

> Instrumental/Vocal Teaching is not a regulated sector within music education in Ireland and there is no national music school system … There are no taught postgraduate programmes in Ireland specialising in instrumental/vocal teaching but there are possibilities on offer in the UK including some distance learning options. (Kelleher, 2018)

Instrumental and vocal music teachers can undertake external diplomas offered by examination boards, e.g., RIAM, ABRSM, or Trinity College London teaching diploma. The Curious Piano Teachers offer online teacher training and resources. Piano teacher associations provide masterclasses, workshops, and seminars to support piano teachers, e.g., the European Piano Teachers' Association Ireland (EPTA).

The piano was the favourite instrument for learning music, which continued throughout the nineteenth and twentieth centuries (McCarthy, 1999a, p. 42, 65). Upper class Victorian society advocated piano tuition, especially for females to refine female musical taste (p. 66). The *Fifty-Fourth Report* (1887, p. 69) indicates the development of instrumental music included in a National School programme for fifth and sixth classes. Few students, however, could take advantage of instrumental music education (McCarthy, 1999a). Today, the Department of Education and Skills provides funding for six music institutes outside of the primary and secondary school system, each with its own curriculum:

Cork:	MTU Cork School of Music
	Cork Education Training Board School of Music
Dublin:	Royal Irish Academy of Music
	Conservatory of Music and Drama TU Dublin
	Music Centre, Kylemore College of Music
Limerick:	Limerick School of Music

The Conservatory of Music and Drama TU Dublin offers junior students piano improvisation and ensemble studies. In addition, Newpark Academy of Music in Dublin provides instrumental learning for children and adults, including jazz ensemble improvisation courses. Maoin Cheoil na Gaillimhe (translated "Galway Music Resource") is a music school in Galway city, which began in 2010 and uses the *Colourstrings* method of violin teaching at elementary level (Kelly, 2010). This visual and auditory approach introduces violin music to children, based on the Kodály method, using a different colour for each violin string that corresponds to notation. Hungarian-born violin pedagogue Geza Szilvay developed the approach in Finland for group and individual violin tuition. The method makes it easier for young children to internalise musical concepts via experiencing various sensory modes (Mitchell, 1994). Using different senses "seems to coincide with the way children learn best" (p. 78). It interconnects the development of listening, technique and the

"emotional world of a child and applies the principle of reinforcement of perception through joint functioning of the senses" (Sistema Europe, 2021).

2.6.3 CSM piano lab group teaching, learning, and research

Established in 1878, the Cork Municipal School of Music "is the oldest of its kind in these islands" (Curtis, 1979, p. 5). The purpose of the music school was to educate diverse students and promote classical music for broader audiences (Curtis, 1952; O'Regan, 2018):

> The Cork School of Music is designed to provide a sound and systematic course of musical training for all classes and to elevate the general character of musical taste in Cork. Teaching should not be entirely confined to those who are gifted with special talent, but by preserving a system of classification, pupils of ordinary ability as well should be enabled to enlarge their knowledge of the art and develop technical skills as far as their prowess will admit. (Cork School of Music, Minute Book 1878-1897)

The curriculum comprised solfège and harmony with optional piano lessons for violinists. Initially, three students attended one-hour lessons in piano, violin, voice (O'Regan, 2018). The music school's inclusive policy "welcomed a wide spectrum of citizens and sustained an educational institution that effectively transcended sectoral and denominational interests" (p. 238).

The Suzuki approach began in Cork In the 1960s and "illustrates Cork's historical role as a prominent innovative centre for music education in Ireland" (McCarthy, 1999a, p. 156). Today, Suzuki violin, viola, and cello are taught at the school. In the 1980s, the Kodály approach increased at the music school. Music teachers from Ireland trained at the Kodály institute in Hungary because of its emphasis on singing, folk music, and sol-fa for primary school children (McCarthy, 1999a). The CSM Director Bernard Curtis (1979) hoped the CSM would "produce teachers of music thoroughly equipped for their work and imbued with correct ideas of musical education" (p. 55). Besides other colleagues, I went abroad and returned to teach at the CSM, as discussed in my autobiography.

Cork has a particular role and oral tradition that thrives on its longstanding annual Jazz and Choral Festivals, as well as traditional Irish folk music. Indeed, some students come from a culture steeped in Irish music and as a result, play by ear with little difficulty in the piano lab. My individual students, however, rarely come from this

background. Amidst this strong oral cultural context, students in Irish conservatoires are mainly taught via the rigid traditional notation-based approach, which does not seem to work for all children. My research occurred within this juxtaposition of two distinctive contexts. Furthermore, referring to the above quote (1878 Minute Book), there would appear to be tension between the CSM's original declared aims of providing "a sound and systematic course" for all learners regardless of class or ability, and its current institutional practices. For instance, those who succeed in the graded exams can continue their studies, whereas those who fail must discontinue.

In 1999, the year of the introduction of the current primary education music curriculum, the CSM piano lab was set up to address sightreading inadequacies. As a result, beginner pianists are supposedly exposed to composing, listening, and performing in their primary schools. They participate in learning *presentational performance* in individual piano lessons and *participatory music* in the piano lab. Group piano lab playing entails learning to sightread together. Students typically learn in an isolated setting at home and in one-to-one individual piano studio lessons. The piano lab bridges the gap so learners can come together with others in groups. Turino (2008) argues that *participatory performance* is more democratic and less competitive or hierarchical than *presentational* music. Group dynamics also involves competitiveness with pupils observing what others can do, or find difficult, which I will discuss in Chapter 4.

Research into music education in Ireland has mainly been concerned with primary and secondary education, whereas research into instrumental learning is lacking (Deloughry, 2014; Taaffe, 2014), particularly in relation to group teaching and learning. Stakelum (2022) notes there has been much research into individual feedback about music in schools, performance, and assessing the productivity of imagination, but "very little is known about the group or community setting, at least not in the young child context" (p. 45).

Elaine Gordon's (2010) MA practice-based collaborative study, "The Piano Laboratory as an Interlinking Resource in the Development of Keyboard Skills for Young Pianists," is the only other research on group piano learning in Ireland. Its purpose was to examine the development of a piano lab educational programme that integrated with other CSM Courses. The research took place at the Cork Institute of

Technology (CIT) CSM piano lab from 2008 to 2010 (the institute has since changed its name to MTU CSM). Through action-oriented methods, Gordon explored optimal teaching approaches to support students' challenges with pitch and rhythm. She used a Teaching for Understanding (TfU) framework as her instructional design for teaching rhythm, pulse, pitch, keys, interval relationships, metronome usage, and ensemble playing. Four piano lab teachers taught twelve classes of forty Grade 1 pupils aged 9-11. Cycle 1 of the action research involved collecting preliminary data via questionnaires and interviews of piano and theory teachers about the effectiveness of teaching material. Cycle 2 involved a focus group with piano teachers, theory teachers, and other interested teachers. Findings from the discussions and focus group observations resulted in a search "for a curriculum supporting prospects for resourceful problem solving and practice improvement for teaching and learning in the Pianolab" (p. 68). The researcher and piano lab teachers collected feedback from students' evaluation of the researcher's specially designed teaching material. She used a Course Portfolio in Cycle 3 to document the development of learning. Other data collection methods included: a second focus group with piano lab teachers, which led to more collaborative debates throughout the school, ensemble performances, a presentation on sightreading by the pedagogue Paul Harris, and in-depth individual interviews with him, and a music theory teacher. Findings interpreted thematically revealed teachers appreciated the course materials "most relevant to the syllabus requirements of the graded piano examinations" (p. 72). It indicated the role of the piano lab as a musicianship skills resource that supports studio piano teachers and integrates with the Kodály-based music theory lessons and other music programmes at the school.

2.7 Group teaching and learning

The composer, pedagogue, inventor, and publisher Johann Bernhard Logier (1777–1846) started the first piano lab in his music shop in Dublin, Ireland (Richards, 1962). He introduced group piano lessons and taught elementary harmony around 1815 (Fisher, 2010; Rainbow, 1990). From the 1920s, educators began teaching group piano in American elementary schools. They realised the value of not only training class music teachers but also training piano teachers to teach in group settings. Teachers used electronic piano laboratories for functional skills at tertiary level, from

the 1950s (Uszler, 1992). Today, piano labs are fitted with instructor consoles that enable individual or group teaching and learning (Fisher, 2010).

Combining Suzuki violin group work with individual lessons motivates students' music-making and interacting with peers, which they enjoy (Krigbaum, 2005). The Suzuki approach of playing with and observing older advanced students inspires younger students. Jorgensen (2008), Cathcart (2013) and Fisher (2010) promote combining individual and group piano lessons for developing broad musicianship. The pedagogue Frances Clark (1992) considers it as ideal for all piano students:

> The students come … for an hour group lesson … and another day for a 30–minute private lesson. In this way they enjoy all the benefits of group study for their major lesson yet have the added benefit of private instruction for areas that are entirely individual: technique and interpretation, for example … we are convinced that this is the ideal combination for all piano students. If you begin to experiment with group instruction you will soon find that its benefits are too great to be ignored. (p. 187)

Cathcart's (2013) study, however, found few piano teachers teach group piano because mixed ability makes it challenging to manage pupils' individual needs. A few teachers use it for "musicianship rather than pianism" (p. 174). For managing mixed ability, Pike (2017) recommends placing each pupil appropriately into groups according to their ability for optimal participation and learning.

Hallam (2012) points out group learning enables students to learn from and support one another. The individual and group feedback that they receive guides them toward broadening their skills. For example, Hepach et al. (2012) maintain that even two-year-old children want others to be helped, irrespective of whether they supply the help. It indicates their motivation might be driven by a sincere interest in caring for others, rather than getting credit for it themselves. Once in kindergarten, they adapt in promoting acceptable conduct and collaboration, whilst penalising non-collaborators. Their "concerns for self-reputation" will increasingly evolve "as they encounter new people and learn the social norms of their cultural group, especially during middle childhood" (p. 671). Finn (2019) suggests caring for the wellbeing of others is a powerful incentive for young children helping others. "The significance of opportunities for helpfulness in inherently cooperative settings seems imperative to sites of education" (p. 886). I return to this issue in my discussion of group dynamics in Chapter 4.

That group learning has many benefits has been expressed by a growing number of scholars (see Cathcart, 2014; Fisher, 2010; Hallam, 2012; Pike, 2017). Fisher (2010) highlights the social benefits of regular group lessons such as the camaraderie of playing music with peers, developing confidence and social skills, and having a sense of belonging. Hallam, Creech and Varvarigou (2018) acknowledge that those who participate in group learning might enjoy music more than those who do not. Group learning is more inclusive and motivating than other approaches because of the interaction with others. Pupils gain a sense of responsibility toward their peers (Creech & Gaunt, 2012; Fisher, 2010).

Thomas Turino, for example, places much value on prioritising participants joining in making music more than on presenting music (Stakelum, 2022). He argues that music is not just an art but relates to specific sorts of musical acts that meet people's diverse needs (Turino, 2008). As mentioned earlier, he promotes participatory music as important "for the processes of personal and social integration that make us whole" (p. 1). *Participatory performance* refers to the focus on the act of playing music and on other group members, whilst appreciating everybody's musical input. It involves adapting to collaborating and tuning into others in the group in a non-evaluative, non-judgemental way. "Participatory values place a priority on performing in ways that invite participation" (p. 33). Participatory music necessitates an audience's engagement in music making compared to a passive audience listening to performed music (Blaukopf, 1992, p. 195). In contrast, *presentational performance* involves a performer's prepared performance presented to a listening audience. "In presentational music … innovation is often highly valued for the interest it provides for the audience" (Turino, 2008, p. 33).

Some authors warn of the potential vulnerabilities of group learning, especially when singing and playing music in front of peers (Loveless et al., 2016; Richerme, 2016). As human beings, we tend to get offended easily, which conditions our fears and determines how we engage with or disengage from others (Loveless et al., 2016). Vulnerable experiences are regarded as likely in group settings, yet discussion about it is lax (Richerme, 2016). These issues are part of the tensions operating on me, my colleagues, my pupils, their parents, and the school, which I will examine in the findings' chapters.

2.7.1 Studies focused on group piano learning

The research contributions considered here include two studies focused on group piano learning aimed at exploring broadening musicianship skills and best practices in group environments.

2.7.1.1 Koopman's Project (2002)

Koopman's (2002) pioneering Project for Introductory Piano Education at the Royal Conservatory of The Hague investigated the piano learning of twenty children aged 5–7 years over seven months. Sixteen children had family members who were musicians. Guiding the research was the hypothesis "that educating genuinely musical pianists requires that children are first trained in basic skills," in aural, rhythm, and movement (p. 270). An ear-playing approach was adopted. The study aimed to develop wide musicianship skills and enhance playing by ear and creative music making. It sought to allow the children to develop at their own rate, enjoy music, and promote their social skills. It also aimed to evaluate the project's goal of broad musicianship, explore talented children's musical development, and improve the pedagogy of grouped beginners. Methods of this qualitative case study entailed open observations by two researchers, fieldnotes, and recordings of the teachers' discussing and evaluating sessions.

The project comprised two phases. The first phase entailed an amalgamation of music theory lessons and group piano lessons. Those with "the best potential for musical growth" proceeded to individual piano lessons (p. 270). The second phase of the project comprised 15–minute warm-up and 30–minute duo piano lessons for younger pupils. Meanwhile, the older pupils had general music, then vice versa. Activities comprised playing songs by ear at varied tempi, singing in tune and improvising. Although the children were shy, they enjoyed performing songs they had mastered. However, the researcher noted a lack of stepped progression of songs. "No sequence of songs exists in which each one takes the skills acquired through earlier songs one step further" (p. 281). The sessions ended with the children performing to an audience of 50 people, including peers, teachers, and relatives.

The parents' role was to help with the homework and "provide the children with a sense of safety," as teachers and peers might seem like strangers. At first, teachers

noted the potential for parents to interfere and for their presence to distract their child. As time went by, however, teachers viewed parents' participation more positively and expected them to attend.

There were marked differences between children aged five and six years with the younger children's underdeveloped musculature. Diverse abilities encompassed different rates of ear-playing. The children progressed differently. "Talented" children quickly anticipated the chordal changes. Some children took much longer to learn songs than others. Despite this, teachers encouraged the achievements of those who struggled. Strugglers became disheartened while high achievers were not challenged enough and became bored. These negatives were reduced during the project because the talented pupils received more training.

Koopman noted the reduced time for individual attention with pupils in a group setting. Group management of four children proved hugely difficult when a teacher observed one child. For example, the other children chatted, wandered, hammered on the piano, which spread to the others. One teacher claimed going "back and forth from one child to the other" hindered intimate relationships (p. 280). This might indicate a lack of teacher training in group piano teaching.

Although children learned to improvise a little, playing songs by ear was the primary focus. Koopman notes how 7-year-old children's "inclination to improvise declines" because they begin to conform to musical styles. Yet, "improvisation consistent with a specific idiom is as yet too difficult for them" (Koopman, 2002, p. 282). Even so, Reynolds et al. (1998) argue tonal patterns facilitate the anticipation of "the syntax of a tonality, and rhythm patterns assist children in hearing the syntax of a meter" (p. 22). An aural approach that progresses via an incremental repertoire of songs and tonal patterns, such as the *Jump Right In* intervention, might enable children to continue improvising as they advance.

The approach taken of preselected children, identified as having musical potential, might have had different outcomes had it been with a non-selective group. Koopman asserts the children progressed with key musical achievements. They attained high standards performing rhythm, group playing, harmonising, and singing in canon. Enjoyment of music was heightened, e.g., they "achieved remarkable results with canon singing" (2002, p. 275), "not recorded so far by developmental research" (p.

283). Without the data of educators' and researchers' discussions, it seems difficult to establish justified reasons for accepting his assertion, which might be viewed as exaggerated.

2.7.1.2 Pike's group case study (2013)

Early childhood experts in the USA suggest group music learning benefits children, because they "experience music fundamentals through a wide range of stimulating and enjoyable activities, such as movement, ear training, improvisation, technique, sight reading and theory" (Pike, 2013, p. 93). Pike's case study addressed the lack of literature on practical and systematic guidance for group piano teaching. She investigated best pedagogical practices for group beginner pianists. The research method comprised questionnaires, as well as observing and interviewing four groups of students and their teachers for one year.

Two qualified piano teachers took part in the study based on their experience of over 15 years teaching groups. Their students regularly succeeded in the parish and state piano competitions. Both teachers also retained "the majority of students from one academic year to the next" (Pike, 2013, p. 94). The two teachers taught two groups each. Each of the four groups comprised five pupils in their first to sixth year of learning piano only in group lessons. Two groups comprised beginners aged 7–8 years for 65–minute lessons; two groups comprised 11–13-year-olds for 80–minute lessons. Activities included piano playing, focused listening, playing by ear tasks and theory games. Pike found that the teachers "engaged their students in performance or musicianship activities between 94% and 98% of class time" (p. 101). One teacher aimed to:

> create lifelong music lovers, competent amateur musicians ... connoisseurs of good music who will go to concerts and who will be able to play the piano for their own pleasure for many years to come (Pike, 2013, p. 103).

The study identified best practices for group piano teaching. These include employing the unique dynamic of individual groups to optimise inspiration and progress; utilising the group's shared "discovery-learning strategies" to nurture autonomous learning of every learner; and an extensive curriculum that sequentially introduces, reinforces, and scaffolds concepts (p. 104).

2.8 Pressures operating on teachers and music schools

Different institutional tensions emerged from my autobiography, such as the system of music exams, notions of developing musical excellence, and my relationship with formal music educational structures. Lennon and Reed (2012) highlight some of the different dilemmas and pressures operating on the music school, my colleagues, and me:

> Within an ever expanding range of teaching and learning contexts, instrumental/vocal teachers are being required to take on new roles as they engage in various types of collaborative work as mentors, co-ordinators, facilitators, advisers, directors and music leaders as well as 'teachers' in the traditional sense of the term. They are being called upon to act as advocates, networkers, project managers and developers (p. 292) … These changes … make greater demands on teachers' personal communication, social and 'entrepreneurial' skills. (p. 299)

I examine the different expectations of different parents and my negotiations with parents, their children, the cultures beyond the school, and the world outside. In Chapter 3, I explore how I saw the *Jump Right In* intervention as helpful for initiating and exploring the impact of ear-playing within my practice and I outline its significance to me as a teacher. It addressed the pedagogical problem which confronted me, while adapting it to the CSM piano lab context. Although there are distinct gains from adopting the *Jump Right In* method, it also came with unanticipated attendant difficulties, as will emerge in the findings Chapters 4-6.

Fisher (2010) encourages parents to attend individual piano lessons to take notes or record lessons, but considers parental attendance unnecessary for group lessons for greater learner autonomy. He suggests parents can observe their child's classes from a distance as "the student should be able to participate in lesson activities without the immediate assistance of the parent" (p. 176). Parents observing from a distance might be appropriate for seven-year-old children who can self-manage, communicate, request help, and are more socially resilient with friendship skills. Certain parents might prefer to get involved in group piano lessons if their child feels shy or under pressure. Some young children might achieve more initially with parents reminding them of what they learnt in the lesson, so they can do it by themselves the next day (Vygotsky, 2017).

Families differ widely with getting involved in lessons. What holds true for one family is not the case for another (Howe & Sloboda, 1991). Diverse families range from those who want to get involved in their child's music learning, in contrast to parents who prefer to develop their child's autonomy, and can lead to communicative difficulties. Encouraging parents' participation in group lessons for children aged 7–11 years is an opportunity for strengthening pupil-parent-teacher triadic relationships. Certain children need parents' support during the first few piano lab lessons, to become confident with adapting to group learning until they feel safe. Some parents might become interested in piano learning to support their child. They can speak on their child's behalf, as they have more insight than the teacher about their child's needs and difficulties. However, they might not want to manage unnecessary disputes with their child about practising. The role of involved parents changes as they become the home coach helping their child to sing in tune at home. Tensions might also arise because of parents prioritising musical enjoyment which might compete with teachers prioritising high standards. Parents might feel insecure because of lacking musical knowledge and the confidence to support their child at home. Indeed, Rutherford and Edgar (1979) acknowledge the numerous teacher-parent disputes that emerge, owing to misunderstanding "each other's values concerning the goals of the educational process or the technique used to achieve them" (p. 40). I will return this issue in my discussion of parental involvement in Chapter 5.

Strong professional teacher-parent partnerships involve consulting and working in tandem with parents, valuing them as "complementary educators" (Nixon et al., 1997, p. 16). It entails liaising with them rather than maintaining "professional aloofness" (Cope, 1999, p. 72). Henry (1996) believed that when the parent and teacher respond positively to one another and share authority and involvement, it engenders the pupil-teacher-parent trio to "reach out towards the challenges (or resources) of trust, autonomy and initiative" (p. 184). Strong teacher-parent partnerships require regular communication of schedules, for example, through email and text messages, as families lead busy lives (Pike, 2017). Parents' voices about the challenges and benefits of learning via an aural focus are important because they can contribute to helping teachers improve their practice. I also return to this issue in my discussion of parental involvement in Chapter 5.

The Suzuki tradition, which promotes a long-term proactive role of parents attending lessons and learning with their toddler child, complicates the picture (Colprit, 2000; Duke, 1999; Gembris & Davidson, 2002). It promotes parental involvement as being important for supporting group learning. Suzuki (1983) claimed that children "are really educated in the home" (p. 94). In the early stages of Suzuki programmes, parents are required to get heavily involved with young children and learn music alongside their child (Pike, 2017). Parents gradually stretch their child's concentration by increasing practice sessions each day (Peak, 1996). Suzuki teachers must therefore be able to relate to both children and adults (Krigbaum, 2005). Parental involvement in and outside of lessons is important as some children at the beginner stage might need their parent's support to progress.

The mother's role as the primary carer is essential for supporting the child through emotional difficulties, as learning an instrument might seem challenging (McPherson & Davidson, 2002). Peak (1996) suggests encouraging mothers to act as a type of "full-time auxiliary private music teacher for the child is probably unique to the Suzuki Method" (p. 354). Creech argues the Suzuki approach cannot claim exclusive ownership of the parental involvement concept in early music learning. Parent-teacher-pupil educational partnerships are evidenced across historical and cultural periods and in biographical and empirical studies (Creech, 2006). Its distinctive feature is its wide variety of ages (Creech & Hallam, 2003, p. 37).

Peak (1996) contrasts Japanese and American mothers' Suzuki involvement, whereby both cultures learn to teach their child at home, attend weekly lessons, take notes, and record lessons. The teacher explains the practice homework to the mother, who becomes responsible for the child's practice. The mother might even be "quite strictly admonished by the teacher if the child has not been practising hard enough" (p. 353). Japanese mothers are highly involved in their children's pre-school education to promote community effort and planning. Education in the United States fosters autonomous learning, independent effort, and ability. Thus, the Suzuki approach often becomes overbearing for American mothers who are less willing to learn the violin with their child than Japanese mothers. Knerr's study (2006) of exemplary piano teachers in the United States highlights a Suzuki piano teacher who usually accepted 4–5-year-old beginners, on condition their parents were committed,

attended lessons, took notes, and practised daily with their child. I return to this issue in my discussion about group dynamics in Chapter 5.

2.8.1 Studies focused on parental involvement

Sosniak (1985) interviewed 24 concert pianists about their musical upbringing. She found that their progress depended more on their parents' involvement and encouragement than on the parents' background in music. The diversity of parents ranged from those who valued, enjoyed, and played music as a hobby to those who lacked any interest in it. 33% of the parents attended lessons in the early stages of learning to understand what their child should practise. Some parents were intensely devoted to their child's music studies. They attended lessons until their child reached ten years old. All participants remembered being praised by their parents, rewarded for their performing successes, given lots of attention, and shown off. When their parents initiated the concert pianist career, participants increasingly found their identity as young pianists. While their practice routine and ambition grew, they became more motivated.

Howe and Sloboda (1991) interviewed the parents of twenty "exceptionally able" pupils at Chethams School in Manchester. The authors enquired into the key influences on pupils' musical progress. Most of their parents had performed music and had a strong influence on their child's interest in music. Their musical experience ranged from 36% of parents not having any interest, 14% who were amateur musicians, and 6% who performed professionally or taught music.

Davidson et al. (1996, pp. 40, 44) sought to understand why so many children discontinue and the influences that result in those who continue. Findings indicate those who continued had "different musical relationships with their parents." The early involvement of parents and their supportive roles was more important than their music competencies.

Huber's study examined parents' role as they supported their children's violin practice at home (Huber, 2019). The ten-week whole-class violin programme was for beginners. She examined the attitudes and views of pupils and parents of how they practised and whether progress happened despite a lack of practice at home. She also explored the value of parents' role as supporters of practice. Parents completed

a pre and post questionnaire. Findings indicate pupils practised once a week with their mothers' support at home. Tiredness and time constraints were the fundamental difficulties. Most parents believed in the importance of pupils enjoying practice. Huber suggests violin practice groups might be an effective alternative to solitary practice (Cope, 1999).

While studies have examined parental involvement in individual instrumental lessons, little research has been undertaken of parental involvement in group piano lessons.

2.8.2 Differentiation tensions

The learning context within the piano lab brings challenges and opportunities for teaching diverse groups of pupils, which I discuss in the findings chapters. For example, there are pressures operating on piano lab teachers with managing diverse musical backgrounds, ability, attitudes, expectations and commitment levels in the piano lab's traditional setting. I respond to individual differences, within the constraints of half-hour lessons, amidst contradictory processes of teaching ear-playing in a music school that prioritises music reading. Children's aural aptitude may vary depending on the music they have encountered prior to beginning lessons (Hallam, 2001). Their progress in reading music also differs a great deal (McPherson & Gabrielsson, 2002). Wide differences in music theory classes, notation reading, and ear-playing call for differential teaching to cater to the different speeds of learning. John McCarthy (2017) maintains most classroom teachers use differentiation, as it takes a deliberate effort not to differentiate. He defines "intuitive differentiation" as "the work that's done in the heat of instruction when lesson plans meet students" (p. 25). The teacher modifies teaching according to how learners respond. "Intentional differentiation is the planning that occurs prior to instruction based on assessment data" (p. 29), which I will discuss in Chapter 6 (see 6.1.2).

Harris (2007) points out that each student's development is unique – some play by ear, others do not; some progress reading music, others struggle, therefore teaching needs to suit the diverse levels of ability. Playing by ear has become an important pedagogical way of approaching pupils' diverse difficulties. Harris recommends remedial groups for those who have difficulties with ear-playing or music reading.

McPherson and Gabrielsson (2002) concur and note that all pupils have strengths and shortcomings that influence whether they will continue learning or discontinue. There will always be a mixture of competence, temperament, and commitment. Lennon and Reed (2012) suggest setting up a safe, inspiring and "supportive learning environment for all students including those with special educational needs, the gifted and talented" (p. 298).

Much literature suggests streaming groups of students with others of comparable ability is ineffective. Mixed ability groups can be powerful contexts for peer learning (Hallam et al., 2003; Ireson & Hallam, 2001). Bruner (1977) argues teaching aimed at the average student to benefit the majority is just as bad as teaching aimed at excellence for the talented student. He advocates designing "materials that will challenge the superior student" to purse excellence whilst supporting "those less fortunate" (p. 70). Fisher (2010, p. 25) recommends forming groups based on similar age, level of achievement, and progress. Coats (2006) concurs and suggests "placement by age and ability is most important" so groups of students can learn from each other and mature into effective groups (p. 107). Pike (2017) also promotes careful placement of students in groups so that lessons progress at the rate of the average students. For piano teachers new to group teaching, she recommends "well-matched students" (p. 168).

The following chapter sets out the autoethnography methodology and provides a rationale for the research participant sample, data collection and analysis.

CHAPTER 3: METHODOLOGY

3.1 Introduction

Playing by ear and reading music in the piano lab are two skills identified as the key foci in my thesis. The methodology of the research is an autoethnography which includes action research and the *Jump Right In* teaching intervention that I used to teach ear-playing skills. Chapter 1 established my biography, what drew me to playing by ear and the reasons I wanted to change my practice. It situated the work that is my focus within my longer-term history of involvement with music and education. The present chapter focuses on the methodology, collecting data, approach to analysis, and research ethics. In doing so, it explains how my initial plan for conducting an action research project to test the worth of playing by ear shifted to become an autoethnographic exploration of my development as an educator through the action research cycles. For this reason, the autoethnographic work extends beyond simply my responses to the cycles. It reaches back into testing a well-worn pedagogical approach (playing by ear), to my autoethnography as a music educator, which will now be discussed. At the heart of the study is the specific affordances of autoethnography and the kinds of narrative accounts I offer, leading to insights about ability, difference, embodied and affective learning. Furthermore, the accounts include shifting perceptions, the centrality of classroom relations, negotiating with families, and my developing identity as a musician and teacher researcher. The chapter also introduces the field site and the areas that were turning points in my growth as a music teacher. It outlines how I planned and managed the data while implementing ear-playing, pedagogical strategies, and curricular aims.

3.2 The *Jump Right In* and emailed homework interventions

I enquired into an intervention that would help me carry out an aural approach. My readings of the literature and Christopher Azzara's TED TALK on improvisation (TED, 2011) led me to his research. By the summer of 2014, I was ready for a professional development summer course and his course was the only one that I could find at that time. I consulted with my supervisor:

> RESEARCHER: It looks like Christopher Azzara has a course in July that might be worth going to. What do you think? Below is the link to his professional engagements' page and below that a part of the calendar.

My employers did not require me to take the course, as previously mentioned. Given I did not know how to teach ear-playing, my supervisor encouraged me to explore this course through practitioner research to improve music education in the piano lab. At the time, I was unsure if the course would help. Although I did not evaluate other aural approaches for use, I had been following the Ear Playing Project in the UK since 2012 with interest. I travelled to the United States to undertake Azzara's aural teacher training course (Azzara, 2014). It introduced me to Gordon's (2011) aural classification system, and the published instrumental teaching approach *Jump Right In: The Instrumental Series* (Grunow et al., 2001). What set this approach apart and made it particularly suited to my fieldwork setting and research aims was its systematic method that comprises sequential objectives, reading readiness, and rote learning of international folk songs. It includes the *Jump Right In Teacher's Guide* (Grunow et al., 1999), recorder student book, and accompanying CDs with soundtracks. For the teacher training course, music teachers played on instruments other than their own instrument to identify with being a beginner.

Instrumental music education in the US prioritises brass, woodwind, and percussive band ensembles for performing in public (Johnson & Fautley, 2017), therefore, the *Jump Right In* approach was developed for instruments other than the piano. Nevertheless, it benefits beginners learning to play the piano by ear. The separated soundtracks of melody and bass lines make it easier to imitate. Learning to anticipate the bass notes of a bass line rather than chordal progressions is an appropriate first step for beginner pianists. After pupils learn a song by ear, they read it. The bass line is notated rhythmically via chord letter symbols, above the precise melody note it accompanies. Sequenced tonal patterns, incremental repertoire of songs and a wide range of genres appeal to children. It suits group learners in the piano lab. Groups can sing songs with peers rather than solo with a teacher in individual lessons. The sample lesson plans enable teachers to prepare, adapt, and develop lessons according to their local context.

The music school purchased seven *Student Jump Right In* books 1 and 2 for Soprano Recorder. They included CDs of incremental songs. As well as the

background piano accompaniment, the first half of the soundtracks of songs comprise a singer singing the melody. The second half of the soundtracks comprise the singer singing the bass line. Performers involve professional musicians from the Eastman School of Music, New York. I required pupils to learn to play the vocal lines, *not* the background piano accompaniment. The student books also provided guidance for singing, chanting, tonal and rhythm patterns, reading notation, recorder technique, CD usage and home practice. I gave each participant a copy of the soundtracks via a CD or USB stick.

I kept the *Jump Right In* tutor books in the music school to ensure pupils learned the songs by ear prior to reading them. Then the books would not go missing. It avoided the distracting pictures of how to play the recorder, as I tried to adapt the approach for the piano. Having the books in school also prevented pupils from learning the songs by reading them at home. They had to learn to play the music by ear and afterward read the notation in the lesson because of the project's aural emphasis. I provided families with the contents page. From September 2014 to May 2015, I practised using the approach with 19 Grade 1 and 2 students aged 8–10 years. For the research project with beginner pianists, I introduced the *Jump Right In* songs, melodies, and bass lines, in unison, with pupils working at their own pace, and reuniting when everyone has learnt the music to play it as a group. I also used YouTube videos with on-screen lyrics to show beginners other versions of the *Jump Right In* songs, which helped them sing together. Sometimes I used the *Piano Safari* tutor book with reading cards to support pupils' improvising and music reading (Fisher & Knerr, 2008).

Prior to my research, I neglected aural skills. I valued sightreading, rehearsed repertoire, and technique as salient and immoveable features of my piano pedagogy. I did not use singing. During my research, as a teacher, I began to integrate students' aural learning from their theory lessons with my pedagogy. They had already learned solfège in theory classes, so I used solfège, rhythm syllables and singing "as an instrumental music instructional technique" (Robinson, 1996, p. 18). Singing became an integral part of my approach. It assisted students with singing in tune and labelling tones as a scaffold for learning to read notation. Applying singing and solfège in piano lab lessons addressed the theory-instrumental disconnect. My position as a teacher on what is important for developing children's musicianship

began with an emphasis on music reading. It transitioned to supplementing music reading with ear-playing, to promote social pianists who can play any music they hear, whilst also having access to the repertoire of notated music.

Before I began my research in the piano lab, I perceived musicianship as developing technique and competent sight-readers within the graded examination system in which I worked. At a subliminal level, I wrestled with the lack of aural support for beginners. I tried to address this by broadening pianistic skills and departing from a system wedded to notation-dependent pedagogies. My view of musicianship shifted toward focusing on developing students' auditory keyboard skills. In my experience as an educational practitioner, many children are less interested in honing technique, although they have to develop motor skills to some level to be able to play at all. They prefer learning how to construct music using keys, chords, and patterns for playing informal or church music or jazz rather than developing motor skills. This has practical implications for my students because I am better positioned to acknowledge the diversity of their musical interests and potential futures as music makers.

I came up with the idea of exploring how I could use emailed homework, having observed sport coaches liaise via email with families in the US to prepare children for sport activities. It included assigning five pages of sightreading exercises from pupils' sightreading tutors. Sometimes it included the starting notes of melodic and bass lines in sol-fa or letter-names, lyrics, key, *Jump Right In* soundtrack numbers, or YouTube links of the songs. It seemed like a useful and sensible way to inform and stay connected with my piano lab families. Therefore, I tested it with my piano lab participants in the fifth week of the research study. I figured emailing the homework to the parents would remind pupils of the songs they had learnt in lessons, and what and how to practise. It might also incentivise parents in their role as the home-practice-guide. Rather than having to write homework in their notebooks at the end of lessons, it would save lesson-time. Emailed homework became the principal means by which I communicated with parents.

3.3 Overview of methodological choices

Initially, I considered comparing two piano lab groups. One experimental group would learn notation and ear-playing via an aural intervention, while the other control group would only learn to read music. I decided against this methodology because it

would be ethically problematic to deprive a group of learners of opportunities to learn to play by ear. There is also a practical difficulty with this model in that it assumes a comparability of the intervention and control groups and does not account for different students or group dynamics. This contrastive approach would create difficulties because the control group could not reliably be construed as a control group due to too many variables outside my control.

For the first two years of my doctoral research project, I used educational action research "for improving educational practice" and implementing cyclical changes (Bassey, 1998, p. 93). The action research explored the musical and self-efficacy outcomes of introducing an aural approach in the piano lab. Action research had seemed an effective way to bring and test changes in my practice initially. However, it assumed testing the worth of a well-established aural approach to music learning, which would have been questionable in originality. Consequently, I embarked on methodologies that informed the process of data generation and its analysis. I associated those most appropriate for my research with ethnographic fieldwork. An ethnography of a music teacher's changing practice in the natural setting of the piano lab remained largely unexplored. The chapter clarifies the reasons for choosing autoethnography, the choices that informed the process of data collection, data generation, its analysis, and how ethnography fitted my research questions. I narrate how I brought aural group piano playing to the centre of my practice for over three years. Also, I explore my negotiations with parents and pupils, their experiences, views, expectations, musical history, and commitment levels, all of which changed my practice. An autoethnography illustrates what I learnt from my developing practice and what the processes taught me.

3.3.1 Initial action research design

Action research in education is an enquiry whereby practitioners investigate a problem having carefully evaluated existing practice. It helps teachers develop pedagogical knowledge and theory, unlike routine that tends to promote passive teaching (Carr & Kemmis, 2004; Noffke & Somekh, 2011). It enables teachers to monitor change and their ownership of change as a tool for improving schools (Bassey, 1998). Teachers define the problem by planning, intervening, assessing their actions, and redefining the problem (Macintyre, 2000). An educational problem

should relate to improving practice and empowering teacher-researchers to explain, hypothesise, and associate it to a broader theoretical base (McAteer, 2013). The research question ought to promote the development of knowledge and understanding. It should be important personally and professionally and applicable to other teachers. Teachers need to have access to the field, data, and interventions. When the problem fits within the remit, they design a research project based on cycles of plan-act-observe-reflect. They feed the findings into lessons via spirals of cycles and evaluate the impact through continual collecting, reflecting, analysing, and interpreting data.

Action research requires teachers to be involved (Bassey, 1998). Teachers are unrivalled at solving their own problems (Ferrance, 2000). They change their practice relevant to their local context (Somekh & Zeichner, 2009). "If you want to understand something, try to change it" (Bronfenbrenner, 1979, p. 37). To understand, evaluate, and address their real-life classroom issues, they embark on a programme of reform by examining competencies and inconsistencies (Carr & Kemmis, 2004). The combined reflecting and researching with action make it a robust method for bringing about change, which challenges customary practices. The process of iterative revising is appropriate for negotiating the complicated scenarios of educational practice (McAteer, 2013). Teachers' familiarity and expertise in their subject, however, and having preconceived assumptions about participants, can prevent them from seeing the data clearly (Macintyre, 2000).

3.3.1.1 The cycles of the project

Phase 1 of the research took place in September 2015. It comprised three focus group interviews with eight piano teachers, which I audio recorded and transcribed.

> With focus group interviews ... the goals are to conduct an interactive discussion that can elicit a greater, more in-depth understanding of perceptions, beliefs, attitudes, and experiences from multiple points of view and to document the context from which those understandings were derived. (Vaughn et al., 1996, p. 16)

I chose the focus group interview research tool because it enabled anonymity, divergent perspectives, and facilitated key stakeholders' interaction. It initiated chain reactions, frank responses, and new opinions (Vaughn et al., 1996) about playing by ear, which I will discuss further in Subsection 3.5.1.

Phase 2 action research study also began in the autumn of 2015. It comprised six cycles over three academic years, which corresponded with the period I worked with the different groups. I noted emergent issues and responded to them at the end of each cycle. I had mixed methods for collecting the data. They comprised (a) my teacher-reflective diary, (b) videos of my teaching twice per cycle, and (c) pupil/parent focus group interviews at the end of the first and third cycles. The quantitative data collection methods comprised (d) pupil/parent questionnaires at the end of the second and fourth cycles, and (e) monthly home video diaries of pupils' practice at home. I intended to analyse the videos via a time-sampling approach (Creech, 2012) to see how the children progressed at home without my help.

At the proposal stage, I did not anticipate that I would use the qualitative core component more than the quantitative. I could not explore answers for my research questions – including my two former research questions and my updated three research questions (see 1.4) – solely through focus group interviews. Some children were shy and inarticulate. Although my teacher reflective diary and video recordings of my teaching provided me with participants' oral feedback, it lacked their written feedback. The role of the supplemental quantitative component of the questionnaires facilitated written feedback from the children and their parents. For example, the questionnaires and home videos enhanced description and understanding, which provided adequate answers and supported the core qualitative component (Morse, 2009). The quantitative strategy enabled me to move forward with my research "with certainty" (Morse, 2009, p. 15) because I had a clearer understanding of what participants were thinking and experiencing. It also encapsulated both individual and group behavioural responses and perspectives.

3.3.2 From action research to autoethnography

By 2014, my intuition and previous teaching caused me to want to improve my pedagogical approach by adding aural skills. I thought action research would be the best way to execute this. I hoped the method would provide insight into the impact of playing by ear on beginner pianists' musicianship and their views and their parents' views about it. But the aim diverged from the original plan of developing and testing the worth of an alternative pedagogical approach which other teachers might then use. Instead, the focus became the transformative changes of my own development

as a practitioner-researcher. I drove my personal reflections through the action research cycles and the processes of doing and writing about the research. My emerging recognition that writing about my changing practice through action research was too narrow caused me to reconsider. The research became more appropriate as an autoethnographically written narrative that would capture my long-term personal teaching experiences and encompass my past, present, and future. Thus, I reconceptualised it as a theorised autoethnography of my changing practice as a teacher, and reframed it as an autoethnographical process, in which the action research became a hook into an autoethnography of my developing practice.

A constraint and critique of action research is it takes insufficient notice of contingent circumstances as a way of characterising research. The method might facilitate the testing of the efficacy of my aural approach, which might improve from repeated iterations and pedagogical outcomes that work from year to year. Nonetheless, the important aspects of my story that involve different students and groupings of students who respond differently might be lacking. Simplifying a generalisable improved teaching method cannot account for the many unique circumstances of different children and parents with whom I interacted with. Autoethnography could cope with this complexity of a field involving many kinds of interpersonal negotiations, and my sense of limited agency, perhaps rather better than action research. Mills and Morton (2013) highlight how the term autoethnography uncovers research practices that enable the practitioner to utilise and analyse the daily "professional worlds" that transcend the limits of research. The advantage of autoethnography is in its awareness of the importance of "the researcher's own embodied experience" (p. 151). Because the sound before symbol approach has existed for a long time, my research could hardly present my improved practice as a novel teaching approach for others to follow. My pedagogical findings are neither universal nor, in any easily generalisable sense, novel. Credibility emerges from a set of concrete encounters with particular learners. An autoethnography of my teaching via the action research process offered an acknowledgement of the forces that operated on me. For example, I was a product of my prior experiences and priorities and the psychological intricacies involved in teaching. I changed tack, rather than replicating the pedagogies that I was on the receiving end of. Autoethnography encapsulates more of the entire picture, of how my practice

developed as part of the recursive process of my music teaching journey, in the particular context in which I was working. Ellis, Adams and Bochner (2011) expound on autoethnography:

> An approach to research and writing that seeks to describe and systematically analyze (*graphy*) personal experience (*auto*) in order to understand cultural experience (*ethno*) … A researcher uses tenets of autobiography and ethnography to do and write autoethnography. Thus, as a method, autoethnography is both process and product. (p. 273)

The danger with action research is it can too easily culminate in its goal being the discovery of a generalisable product like "best practice." Action research processes can become a means to an end. On the other hand, autoethnography is both process and product, therefore not neatly separable (Ellis et al., 2011). It encapsulates the complex different scenarios for different individuals and families. Mills and Morton (2013) believe every ethnography should pay attention to the self and the other equally, reflecting inwardly and outwardly and using "the ethnographic self to offer insight into the practices of others" (p. 151). My autoethnography is not generalisable in a straightforward way. Writing "thick description" overcomes this (Ellis, Adams & Bochner, 2011, p. 277). For example, I contextualise experiences, clarify intentions, unearth the process, and capture detailed multiple realities of small but effective groups of pupils and parent volunteers in the piano lab. Besides, autoethnography allows participants to "have some say in the conditions for learning and teaching" (Finn, 2019, p. 883). It confirms the impact of their input.

What informs my thinking is recognising that action research tends to separate the pedagogic method from the contingent circumstances that are irreducibly part of any act of teaching. My best practice might not work for another teacher, or with different groups of pupils and their parents. Action research encourages the researcher to conceptualise the process of research as the refinement of a method (best practice) that transcends the conditions in which practice is enacted. What gets excluded from this approach is being attentive to the human actors involved. For example, I need to attend to the specific characteristics of pupils and their parents, their interests, motives, concerns, and expectations. But also, I need to recognise my position as a teacher and researcher, which is saturated with my own prior experience as a musician and teacher. Autoethnography enables me to remain properly attentive to these shaping factors of my ongoing practice.

Autobiography helps us grasp inaccessible meaning and understand the past according to the present and vice versa. It helps us recognise what we do now and why we do it in relation to our histories. We can view past perspectives in the present to help us discern new meaning about our personal experiences (Freeman, 2007). Autobiography negotiates the gap between our past choices that confronted us and our present perspectives by reflecting on them in a clear and detailed manner. I can understand more fully the consequences of deficient aural skills by elaborating on my past. My past curricular training, for example, emphasised music reading but minimised aural skills. Autobiography is also essential for understanding teachers' curricular preferences (Goodson, 1991), and the place the curriculum plays in their lives (Butt et al., 1992). Important learning "can only be self-discovered and self-appropriated" (Butt et al., 1992, p. 58). The more intensely one engages in problems with others, the more enduring the learning experience. Teachers teach themselves through continuous pedagogical encounters, connecting the past with subsequent experiences (Bullough, 1998; Butt et al., 1992). Continual monitoring of my teacher's reflective diary, for example, helped me identify patterns of long-term learning processes I might otherwise have overlooked (McNiff & Whitehead, 2010).

Reflective writing allows teachers to examine their practices in order to better understand the impact of external influences, such as political policies (Brown & Jones, 2001). There is greater insight into teachers' knowledge, choices, changing journeys and professional development, when viewed within their social contexts (Kebede, 2009; Kelchtermans, 1993; Roberts, 2002; Sancho & Hernández-Hernández, 2013; Shah, 2006). Teachers and students benefit when a detailed view of the problems experienced is revealed (Sikes & Aspinwall, 1992). It is unlike other research approaches that pay particular attention to the teacher separate from the person, as a teaching tool and "cog in the educational machine" (Elbaz, 1981, p. 45).

3.3.2.1 Challenges of autobiography and autoethnography

Autobiography is subject to abuse if it leads to self-absorption, as it may obscure one's power (Mercer, 2007) and blind spots. "Individually practiced reflexivity does not assure a sufficient perspective on power" (p. 574). Peshkin (2001) argues researchers understand the world through their "values, attitudes, preferences, and experiences" which they carry with them into the research (p. 242). Subjectivity

involves our personal qualities which can "filter, skew, shape, block, transform, construe and misconstrue" what happens from the beginning to the end of a research project (Peshkin, 1988, p. 17). This interfaced with my changing practice because, although I am captive to my subjective perspectives, I had to be mindful, as a researcher, of how my subjectivity shaped my research and its results.

Autobiography might impair the autobiographer's ability to examine other communities and cultures (Anderson, 2006; Davies, 1999, p. 26). This interacted with my changing practice in that I was writing as a researcher about my past pedagogical experiences and the developing changes in my practice, which benefited my practice and is self-absorbing. Nevertheless, the aural focus of the research kept my attention on what I could also improve as a teacher to benefit beginners and their parents for developing a collaborative approach to professional development.

Being conscious of one's subjectivity during the research and catching one's subjectivity "red-handed" at work enables the researcher to reveal to the reader "where the self and subject became joined" (Peskin, 1988, p. 17). It makes the research more trustworthy. For example, I struggled as a researcher to keep my distance from participants as a teacher. It was not always easy to detach myself from an immediate, teacherly response (*how do I solve this pedagogic problem?*) and instead look at what was happening as a phenomenon to be further explored and understood. When parents seemed wary of me teaching their child, I became wary of them, which made me feel like withdrawing all the more. I therefore purposed to draw nearer, to find out more about the source of their wariness. Furthermore, being an "insider" might lead me to assume I "possess more or better insider knowledge" than outsiders (Holmes, 2020, p. 6). I tried to search for myself in the biased undergrowth of my writing and continued the process of subjugating my subjectivity. By patrolling my subjectivity, I could "create an illuminating, empowering personal statement that attunes me to where self and subject are intertwined," in order to cope with subjectivity (Peskin, 1988, p. 20). Regardless of how reflexive one becomes, "there will always be some form of bias or subjectivity," and facets of self that will be overlooked, unidentified, or intentionally concealed (Holmes, 2020, p. 4). Nonetheless, over time, I improved my ability to reflect on, make explicit, and analyse the complexities of the piano lab and of my role in it.

3.4 Context and sample

3.4.1 The fieldwork site

3.4.1.1 Music education in Ireland

As discussed in Chapter 2, the fieldwork site where the research took place was at MTU Cork School of Music. The new building (opened in 2007 with 57 Steinway pianos) and location "act as an ambassador for the Institute" (Cork Institute of Technology, 2009, p. 10):

> It accommodates a 400-seat auditorium, a 100-seater "black box" theatre, more than 40 specialist studios (for teaching and practice) … a drama suite (including a movement room), raked lecture theatres, piano labs, a Recording Suite and Electronic Music Centre, an Audio lab, a Music IT lab, a substantial library, Boardroom and meeting rooms, a staff open-access administration area, a reprographics room, and common rooms for both staff and students. (Cork Institute of Technology, 2015, p. 4).

It caters for students ranging from 4 to 18 years of age outside of formal school time, as well as undergraduate and post-graduate students. First level students enrol in part-time courses while second and third level students enrol in full-times courses. My study involved beginner pianists who were part-time students.

Beginners take part in compulsory two 45-minute weekly preparatory applied musicianship classes called the "CSM Kodály Musicianship Programme," prior to starting instrumental lessons. They learn music by rote and sol-fa for at least a year and audition to study an instrument after completing the preparatory music theory course. Those who succeed are ranked according to their audition and music theory results. Thereafter, music studies comprise weekly instrumental lessons, either orchestra band or ensemble groups, including piano lab (from Grades 2 to 4), and musicianship classes, as mentioned in Chapter 1 (see Subsection 1.2.8). The music theory programme is based on the Kodály approach and complements the instrumental lessons. It uses the moveable-do sol-fa and Galin-Paris-Chève French rhythm syllables. The aim is to establish a solid base in art music, traditional Irish music, and to support one-to-one instrumental and group learning. Students learn to read and write music, compose, and listen to a range of the classical repertoire, based on the sound before symbol approach.

3.4.1.2 Grade examinations

All students are assessed annually according to the Graded Examination curriculum to stabilise the music school's system. Instrumental tuition comprises Junior cycle (Primary to Grade 2), Intermediate cycle (Grade 3–5), and Senior cycle (Grade 6–8). Piano teachers prepare students according to the Piano Syllabus' distinct set of practices, including technique, sightreading, and repertoire. Beginners undertake their first Primary Grade and perform two études and two contrasting pieces, at the end of their second year of piano studies. Grades 1–8 students prepare a piece from the baroque, classical, and romantic or contemporary genres, and an étude. Students usually must achieve at least 80% to progress to the next grade. At the time of the research, an external moderator and two internal examiners examined Grades 2, 5, and 8. Internal examiners conduct all other examinations.

3.4.2 Sample

3.4.2.1 Sampling strategy

The sample for Phase 1 of the study included eight CSM piano teachers. For Phase 2 of the study, the sample was the children whom I happened to teach in the piano lab during the course of the research. My sampling type was purposive sampling with the studio piano pupils I had from the four piano lab teachers including myself, at that time (Bernard, Wutich & Ryan, 2017, p. 50). I used it "to generate theory through the gradual accumulation of data from different sources" (Cohen, Manion & Morrison, 2011, p. 156), which provides depth rather than breadth to the research (p. 157).

3.4.2.2 Characteristics

For Phase 1 of the study, the eight piano teachers who took part in the focus group interviews comprised five females and three males aged approximately 30–60 years. All teachers had either a music teaching diploma or degree. Their teaching experience ranged from a few years of teaching to several decades.

Phase 2 research participants were primary school children. They attended piano lab three years earlier than non-participants, who normally begin at Grade 2 level. In this study, a child refers to below the age of 13. At different stages of the research, 20

children (aged six to ten years) participated as beginner pianists from September 2015 to May 2018. Each of the four groups comprised five children identified as Group A, B, C and D. Six children of immigrants came from either Asia, the Czech Republic, Poland, Ukraine, Russia, and fourteen were Irish. Nineteen parents became involved to varying degrees. Nine parents never attended piano lab lessons with their child, six attended once or a few times, three attended regularly during the second year, and two attended regularly during the third year. Fifteen parents took part in the parent focus group interviews.

Students come to the CSM because of the delivery of music and drama education and the teaching staff's high standard of tuition. The attraction for parents includes the music school's history and student success. The other music provisions include private lessons, or the Cork Education Training Board School of Music, which employs former CSM graduates. Fees are higher at the CSM than at other options available to families.

An overview of the action research cycles is represented in the diagram below (Figure 3).

Figure 3: Action research cycle, adapted from Bassey, 1998
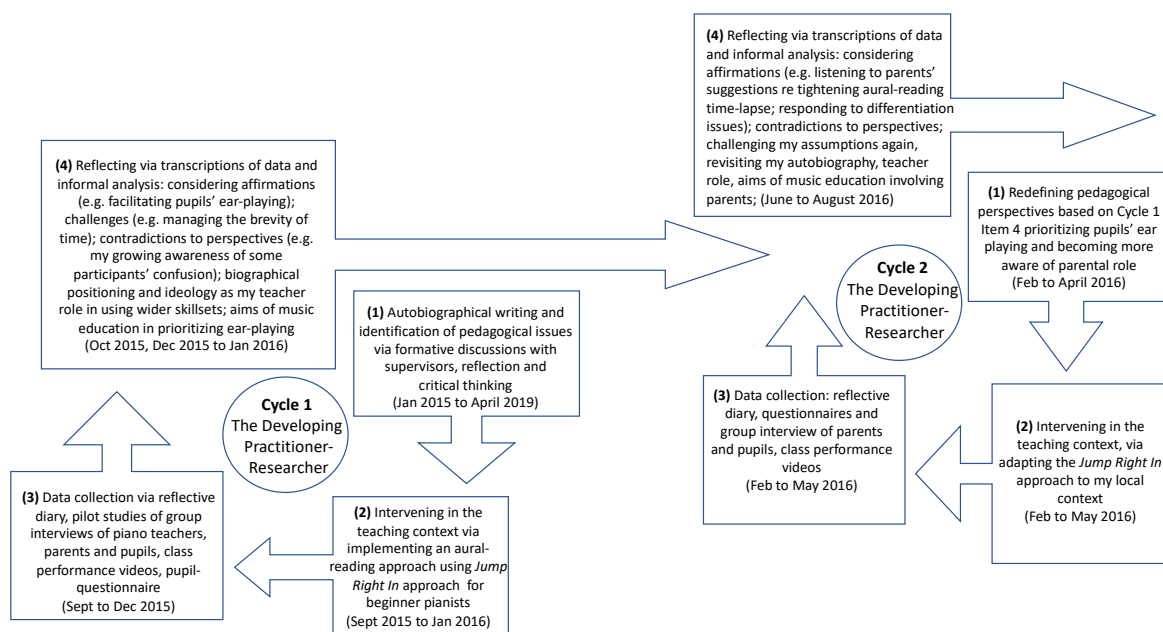
Cycle 1 (first term)

January 2015 – April 2019 Through my autobiographical experiences, I considered playing by ear as important, the reasons for which I explained in my autobiography (Chapter 1). I formally tested this assumption through action research. As a researcher, I identified potential pedagogical issues through discussions with supervisors and formative advice, reflection, and critical thinking. My ongoing perspectives that emerged from my biography were challenged and affirmed, which I saw as an extension of my biography and development.

September 2015 – January 2016 I formed an approach to teaching ear-playing using the *Jump Right In* Teacher's Guide for planning and preparing lessons. As a teacher, I learnt how to teach ear-playing and use solfège, letter-names, notation, bass informal chord reading. Pupils learnt to play songs by ear and began learning to improvise via tonal patterns.

The lesson plans helped me keep a written track record of what I hoped pupils would learn, as well as what they achieved. As a researcher and teacher, I wrote notes on the lesson plans during lessons, which helped me write my reflective teacher's diary. It reminded me of pupils' difficulties: singing in tune, transposing, playing repeated notes, or playing hands together; and their enjoyments: reading notation, learning songs by ear, or improvising.

September – December 2015 As a researcher, I piloted group interviews with parents and pupils (Table 4), and piano teachers (Table 1). I collected data of group interviews with piano teachers (Table 1 & Appendix C). I also collected data through videos of my teaching (Table 3), and pupil questionnaires (see Table 2, Appendix B & Section 3.5) and pupils' home videos (Table 2). My teacher reflective diary helped me keep a consistent narrative about my developing researcher teacher initiatives. The pupils' monthly home videos of their practice at home helped me support the children.

October – December 2015 I transcribed the video and audio recordings, and reflected on them to analyse the data, as a researcher. Transcribing the data was a key part of the analysis. It helped me re-order verbal data in a textual mode which crystallised it in a particular way and gave it shape (Riessman, 1993), such as asking questions as to the rationale for participants' feedback. I considered affirmations (i.e.,

facilitating pupils' ear-playing), and challenges (i.e., struggling to adhere to the *Jump Right In* Teacher's Guide lessons plans within the time constraint of half-hour lessons). I considered contradictions to perspectives (i.e., my growing awareness of some participants' confusion with transposing songs).

Cycle 2 (second term)

February – April 2016 Based on Cycle 1, I self-evaluated and redefined pedagogical perspectives as a researcher and teacher. I reformulated my ideology by reflecting on my interactions with participants. Discovering other perspectives aided my "emotional empathy" and awareness of parents' role and support to reform my approach and interactions with pupils and parents (Kincheloe, 2005, p. 160). I reflected on pedagogy, ideas about my role as an educator, and views on the aims of music teaching and learning. I dropped the *Jump Right In* coordination and rhythm readiness activities to prioritise pupils' ear-playing tasks.

February – May 2016 In response, I applied a new approach by adapting the *Jump Right In* intervention to my context and lesson time-limitations, as a teacher. Differentiation problems within certain groups led me to test the headphones and check music reading. Pupils became more confident with playing their favourite music. I became more proactive with inviting parents into lessons with their child and setting up the piano lab for more collaborative engagement.

February – May 2016 As a researcher, I continued collecting data via parents' and pupils' group interviews and questionnaires, video recordings of my teaching (Tables 2, 3 & 4), and my teacher reflective diary.

June – August 2016 I transcribed and informally analysed the rest of the data, and reflected and considered the affirmations and challenges of my assumptions again. For example, I listened to parents' suggestions about tightening the aural-reading time lapse and responded to differentiation issues and contradictions to perspectives.

I revisited my autobiography, as my views and thinking about music education gradually changed. My onward continuation of my autobiographical writing, as a practitioner-researcher, focused on my autoethnographical journey and became an autoethnographic piece of research through my developing personal worldview.

3.5 Data collection methods

3.5.1 Phase 1 focus group interviews of piano teachers

I piloted all methods of data collection as a researcher. The principal mode of Phase 1 data collection was through three focus group interviews with piano teachers, which took place during the first cycle, as seen in Table 1.

Table 1   Phase 1 focus group interviews with piano teachers

Cycle	Date	Week
First cycle 22.10.2015–11.02.2016	23.10.2015	Week 4 (pilot)
	13.11.2015	Week 7
	16.11.2015	Week 8

As mentioned in the Chapter 1, the focus group interviews with my piano teaching colleagues provided background information on their pedagogical beliefs, values, and perspectives, in relation to difficulties with developing musicianship amongst beginner pianists, and how to address them (Appendices A, B & C). The focus group interviews allowed piano teachers to divulge what they felt and thought about the challenges they faced in teaching beginner pianists. The method informed how I would structure my approach. Some of my colleagues might have been aware of my changing views on aural methods. This might have challenged their stance about prioritising sightreading and not teaching ear-playing. It might also have motivated them to disagree, or inspired them to reflect upon their musical values.

The research depended on real-life situations with other people involved in a piano lab, rather than a science lab or research method book. I purposed to make principled decisions based on what worked best for my particular context. Focus group interviews with colleagues emphasise a consensual view, since voicing disagreement can be difficult to do. The tool had a short turnaround time for collecting the data, and was relatively straightforward to set up in a music school.

Piano teachers sat at one of the seven pianos. After careful consideration of my colleagues, I aimed the camera at the wall away from them. I had a different set of relationships with piano teachers, which informed my judgement to use audio rather

than video. Anyway, I could identify teachers' voices, as I had a history of knowing them. Exploratory focus group interviews linked with the second phase of the research by providing a clear context and coherence with piano teachers in the music school (Appendix C). They were exploratory of their perceptions and experiences about the challenges with teaching beginner pianists sightreading. The pupil group interviews were exploratory of their views encountering an aural approach, which adds to the evidence bass around it.

3.5.2 Phase 2 data collection methods

As the selection of children was not at my discretion, I consulted with the faculty manager. I planned to teach two groups of five beginner pianists for the first year of the project. They had passed their audition and were beginning piano lessons with one of the four piano lab teachers. Beginner pianists typically begin piano lessons at seven years old. I phoned the parents of prospective participants to discuss the research project and offer them placements. Parents who thought their child was willing and able agreed to take part. They attended the first piano lab meeting with their child. I gave the parents simplified information leaflets for the children, who then had their first piano lab lesson after the meeting.

Phase 2 data collection entailed my three-year teacher-reflective journal, videos of my teaching (twice per cycle), and focus group interviews with the pupils and parents (in the first and third cycles). I also collected data through pupil and parent questionnaires (in the second and fourth cycles), and video diaries of pupils' home practice each month, as seen in Table 2.

Table 2   Phase 2 data collection methods

Data collected	Purpose	Frequency	Cycle	Duration
Teacher reflective diary	To remember, reflect, write	Weekly	4 extended to 6 cycles	2 extended to 3 years
Videos of my teaching	As a self-reflective tool	18x 30-minute lessons	2x per 4 cycles	2 years
Pupil home video diaries	To gauge how pupils fared at home	Monthly	4 cycles per year totalling 8 cycles	2 years

Parent focus group interviews	For parental feedback	2x 15-minute interviews	End of 2nd & 3rd cycles	2 years
Pupil focus group interviews	For pupil feedback	2x 15-minute interviews	End of 2nd & 3rd cycles	2 years
Questionnaires	For written feedback on pupils' benefits & challenges	2x	End of 2nd & 4th cycles	2 years

3.5.2.1 Teacher reflective journal

After each lesson, I documented my thoughts and theories on the details of what happened as I worked with the piano lab groups. My weekly observations highlighted relevant emergent issues, which I responded to in subsequent lessons. I concluded each cycle by reflecting on what worked and failed and planned actions to be taken to inform the following cycle. After two years, I ceased data collection. I was not planning on collecting more data. However, given I would teach several of the same participants for a third year, it seemed logical to capitalise on the situation. Therefore, there were six cycles in total, as I continued writing my teacher-reflective journal for a third year and looked carefully at how things developed. The extension caused me to reflect again on my pedagogy and the changes I made with the groups each week.

3.5.2.2 Videos of my teaching

I video recorded 30-minute lessons of Groups A, B and C with pupils working through the activities, twice per cycle at four points in the year (Table 3). This gave me some evidence about how the children progressed under my guidance in lessons. The videos served as a self-reflective tool, enabling me to consider how I might improve my practice to meet pupils' needs and bring about the changes I envisaged. As I became engrossed in working with the children, I used to forget about the camera. Initially, I did not appreciate how helpful the videos could be but overtime, I began to value them more. They motivated me to prepare for lessons and notice things I would otherwise have missed because of my fading short term memory and being preoccupied in lessons. Repeated viewings enabled me to get a clearer picture of what happened. Pupils were curious about the video equipment

initially but before long disregarded it (Chan et al., 2011; Kennedy et al., 2001). They knew I was recording lessons to improve my practice, thus seemed to view it positively. It may have even motivated a few of them to work harder.

Table 3   Calendar of video recorded teaching

Cycle	Date	Week	Group
First cycle 22.10.2015–11.02.2016	12.11.2015	Week 7	Group A (pilot) & B
Second cycle 25.02.2016–19.05.2016	14.04.2016	Week 22	Group A & B
	28.04.2016	Week 24	Group A & B
	12.05.2016	Week 26	Group A & B
Third cycle 15.09.2016–12.01.2017	17.11.2016	Week 36	Group C
	1.12.2016	Week 38	Group C & B
	8.12.2016	Week 39	Group C & B
	15.12.2016	Week 40	Group C & B
Fourth cycle 19.01.2017–18.05.2017	23.03.2017	Week 50	Group B
	30.03.2017	Week 51	Group C
	11.05.2017	Week 55	Group C & B

3.5.2.3 Focus group interviews of pupils

I collected data through 15-minute focus group interviews of three groups of children, prior to the end of the second and third cycles. All focus group interviews took place in the piano lab and were video recorded and transcribed (see Table 4). I positioned the camera on a computer speaker in the front corner of the lab as inconspicuously as possible to blend in with the furniture. I organised the seating arrangements so the children either faced or had their backs to the camera.

As "children are the best sources of information about themselves" (Docherty & Sandelowski, 1999, p. 177), the focus group interviews aimed to capture the children's thoughts about the challenges and benefits of an aural approach to piano playing. I tried to put them at ease and build trust by reassuring them they did not have to answer any question. Having the focus group interviews in their familiar piano lab setting helped achieve this (Cohen et al., 2011). I interviewed Group A and B without their parents in the first year (second cycle). By the second year, most of Group A had discontinued. One pupil in Group A switched to Group B, so there were

six Group B pupils for the second focus group interview. This reduced to five when another pupil discontinued a few weeks later. Group B pupils had become accustomed to studying in the piano lab without their parents. Beginners in Group C, who began in September 2016, were used to their mothers attending every piano lab lesson. Their mothers left the room for the pupil focus group interview (third cycle).

Relinquishing power to children is a major step for adults (Alderson, 1993), especially when one has worked under the master-apprentice dyad for many years. "Power is invested" in the teacher (Burwell, 2012, p. 89) and is "implicit in the apprenticeship setting" (p. 91). My position as the teacher represented an authority figure and this power relationship could have intimidated the children. They may have felt coerced into answering questions. I mitigated the problem by adhering to the principle of assent and being sensitive and alert to any non-verbal cues that indicated they were reluctant to answer questions. My role as a researcher helped me become interested in pupils' ideas. I invited them to ask questions, as icebreakers for making it easier for them to begin conversing (Adler, Salanterä, Zumstein-Shaha 2019). The focus group interviews may have seemed less daunting in the presence of peers than in their individual lessons, especially with outspoken children. The power differential inherent in the teacher-pupil relation may have decreased thereafter (Chan, Lam, Shae, 2011).

3.5.2.4 Focus group interviews of parents

I collected data via two 15-minute focus group interviews with the parents of Group B over two years, and Groups A and C over a year (Table 4). The purpose of the parent focus group interviews was to capture their feedback about their views and how their children were finding the project. As I hardly knew parents, I was unsure of what they would say. Parents of Group A and B sat or stood next to their child during the first half of lessons while pupils performed their songs. Afterwards, parents sat in a circle in the middle of the room with their child for the 15-minute parent focus group interview. In the second year, parents of Groups B and C sat in a circle in the middle of the piano lab for the second parent focus group interview (third cycle). Meanwhile, their children practised while wearing headphones. The parents of Group B rarely attended lessons and came especially for the 15-minute pupil group performance,

just before the parent focus group interview. Conversely, parents of Group C attended piano lab lessons every week.

I prepared a questioning strategy and interview guide to mitigate excluding quieter parents and encourage all parents to engage in the discussion via informally speaking about their concerns and views. English was not the mother tongue of some parents, thus, they might have felt insecure about speaking. I aimed to encourage each parent to speak up, even if they could only manage short phrases.

Table 4   *Calendar of focus group interviews with parents and pupils*

Focus group interview of Parents	Focus group interview of Pupils	Cycle	Date	Week
Parents (pilot)	*Pupils (pilot)*	**First cycle** 22.10.15–11.02.16	26.11.15	Week 9
Parents of Group A		**Second cycle** 25.02.16–19.05.16	12.05.16	Week 26
Parents of Group B			12.05.16	Week 26
	Group A		19.05.16	Week 27
	Group B		19.05.16	Week 27
Parents of Group C		**Third cycle** 15.09.16–12.01.17	8.12.16	Week 39
Parents of Group B			8.12.16	Week 39
	Group C		15.12.16	Week 40
	Group B		15.12.16	Week 40

3.5.2.5 Questionnaires

Pupils and parents completed questionnaires at the end of each year (in the second and fourth cycles). It comprised completion of sentences relating to responses to the activities via a musical self-efficacy rating scale. Previously used for higher education students (Welch et al., 2006), I adapted it for beginner pianists to gain their views on the challenges and benefits of playing by ear.

Groups A and B completed the first questionnaire with the support of their parents in the school corridor or at home, in May 2016, at the end of the first year (Appendix G). Group C completed the second pupil-questionnaire in the lesson in May 2017, at the end of the second year (Appendix H). The mothers who attended helped their child while completing their own *parent*-questionnaire. Group B completed the

second *pupil* questionnaire in the lesson while their parents completed the parent questionnaire at home. The questionnaires solicited additional background information on each pupil and parent. Similarly to pupils' home videos, I did not analyse the questionnaires, as I obtained large-scale qualitative data from the other methods for my autoethnography. Nine parents completed the questionnaires, which gave me some insight into families' musical background (Appendix I). Eight parents indicated they had no musical background. One parent, from the second-year cohort of parents, learned an instrument as a child.

3.5.2.6 Pupils' monthly home video diaries
I established a routine whereby pupils, together with their parents, produced monthly video recordings of their home practice sessions. The purpose of the video diaries was to identify practice strategies that pupils implemented at home. To refine the tasks, I set some parameters. Pupils had to choose to video record one exciting and one challenging task. Only the child, the parent, and I viewed the videos.

Table 5   Three-year graded progression of four groups

Year	Group A	Group B	Group C	Group D
September 2015–May 2016	Beginners	Beginners		
September 2016–May 2017		Primary Grade	Beginners	
September 2017–May 2018		Grade 1	Primary Grade	Beginners

The research participants progressed through the graded examination system, as seen in Table 5. Pupils in Group A ceased piano lab lessons after one year, whereas Group B continued for the three years of the project.

3.6 Data analysis

3.6.1 Narrative analysis

Analysis was ongoing and part of continuous cycles of collecting data, transcribing, reflecting, and redefining pedagogical perspectives based on previous cycles (see Figure 3). It involved exploring my lived experiences of how my practice changed as I broadened beginner pianists' musicianship. Pole and Morrison (2003) maintain ethnographical research in education involves making choices that necessitate being adaptable. The researcher needs to interact with the data while collecting them and make decisions regarding the development of the research. It does not imply that ethnography is unstructured. The ethnographical process exhibits its "essential human quality" as researchers determine the optimal means of "observing, documenting and reporting human behaviour as it happens" (p. 129). I identified and wrote about important aspects with exemplary quotes while collecting data and produced a narrative of their experiences. The study generated a tremendous amount of data, which I made sense of and interacted with in a way that worked for me.

Analysis of my developing practitioner researcher was in the narrative phenomenology tradition (Bernard et al., 2017). "Narrative analysis takes as its object of investigation the story itself" (Riessman, 1993, p. 1), in which people make sense of "life transitions." Sequenced details characterise narrative accounts as opposed to out of context snippets of fractured texts (pp. 3–4). Narrative analysis identifies with people's lived encounters (Bernard et al., 2017). It addresses issues relating to unconscious biases and subjectivity. The approach requires setting one's own cultural lens aside to comprehend the ventures of others as they experience them.

I did some initial coding using the Computer Assisted Qualitative Data Analysis Software NVivo, as I thought it would help my analysis (Saldaña, 2016). In the end, the software inhibited me from organising and interacting with my data in ways that were meaningful to me. My focus may have been more on NVivo than on the data (Saldaña, 2016). NVivo only allowed 40 MB per video import, and hindered me from embedding my videos, which ranged from 1.19 GB to 3.46 GB. I put the software

aside and eventually abandoned it. What mattered to me was interpreting and making sense of the data and becoming interested in the things that did not fit the pattern. I explored how they were represented in the data and shed light on how my practice evolved.

In the first stage of the data analysis, I aimed to produce a theorised account of my journey as a teacher. The overarching question was how and why my practice changed since the start of the project. As my colleagues were not totally unknown to me, I began with an awareness of their views. I read and reread the transcribed focus group interviews of piano teachers. I studied their views about the spectrum of different pedagogical challenges that confronted them with teaching beginners, since they might not experience the same difficulties. Nevertheless, they confirmed a lack of ear-playing and a prioritising of music reading.

> The transcriptions have been proved to work not only as scaffolding for memory; they have also provided us with a precious corpus of data in which we can mirror ourselves to see the evolution of concepts in time, as well as to trace back the changes in thinking and in patterns of behaviour, in the discourse as well as in action. (Losito et al., 1998, p. 228)

For me, the transcriptions of the data acted "as a scaffolding for memory" and helped me to trace changes in my thinking and behaviour patterns "in the discourse as well as in action" (Losito et al., 1998, p. 228.).

I read and reread my teacher reflective diary and lesson plans, reflected on what happened, looked at some measurable changes, and decided what to do for the next week. My iterative journal writing recounted my experiences of what it was like for me, which led to new interpretations and shifted my practice. Increasingly, I wrote more candidly to ensure my research would be understood as a plausible account and interpretation of the data. I clarified the reasons for my interpretation and the standpoint from which I conducted the research. My rationale located my research within my pedagogic music values and history.

> Autoethnography brings the self into the centre of research … [it] is a writing methodology … [as] knowledge is produced through processes of writing (Gannon, 2020, p. 320).

Autoethnography brought the autobiographical dimension of my research into the centre of the research. I produced knowledge through the processes of writing about

the challenges of teaching beginner pianists how to play by ear. At first, I felt uncomfortable with acknowledging my past unconscious biases. My prior experience practising long hours as a music student and performer linked with how I preferred those students who also practised diligently. Based on a set of values I later questioned, I used to favour teaching more able learners, and lacked empathy for the problems facing other learners (see 1.2.2). Sometimes, I was stubborn about finishing songs rather than leaving them unfinished, despite some pupils finding them too hard (see 6.4.5).

Originally, I only intended to watch the videos of my teaching and summarise what I saw. I decided to transcribe *all* of the classroom dialogue to remind myself of what everyone said and what happened. My sharpened senses would then not overlook anything. I read and reread the video transcripts and watched the videos regularly to become familiar with them (Boyatzis, 1998). This gave me a fuller and more precise recollection of the videoed data.

I collated pupils' videos, saved them in the video hosting service Vimeo and watched them repeatedly. The video diaries helped me gauge how the children engaged with the tasks. They provided evidence about how pupils were managing at home without my guidance. Creating a video recording also raised the practising bar for learners. It highlighted areas where I could be more supportive and enabled me to see the tasks from pupils' and their parents' perspectives. I sent emails to the parents with supportive suggestions. Also, I notated pupils' struggles in my field notes and helped them overcome those specific difficulties during lessons. To consider parents' expectations more objectively, I stood back from the emotional exchanges with them. I assessed the implications of their views about the challenges they and their children experienced when learning piano via an aural approach.

Social science researchers are intricately involved in the social world they research. They bring their own histories and biases with them, and acknowledge and disclose their influence on the research (Cohen et al., 2011). Understanding my subjectivity and how I might affect the outcome was important. Although I did not aim for objectivity, it could have been tempting to declare: "hooray, look what I have discovered – I was right." My dissatisfaction with the traditional approach to music pedagogy and my desire to try an aural pedagogy motivated me to do research in

the piano lab. I entered the research not with a blank slate, which did not contaminate or invalidate it. I aimed to be forthright about my identity, my musical past, and the care with which I treat the data to show my research as a plausible and rigorous account.

Autoethnography caused me to think metacognitively, not just reflecting on myself, but in the process of reflecting (Beighton et al., 2021). Autobiographers use "theoretical concepts and analytical procedures of social research in constructing their personal history in a broader context" (Davies, 2008, p. 222). They interact in a type of "participant observation where they have privileged access to their own experience." I turned the lens on myself as I explored my actions and feelings. As the researcher, I represented what Robert Merton called "the ultimate participant in a dual participant-observer role" (Anderson, 2006; Merton, 1988, p. 18). The autoethnographic field of observing oneself and considering the effect of one's presence on what is being investigated involved challenges. Autoethnographers are in a contradictory situation "simultaneously insiders of the studied community and outsiders, members of another (academic) community" (Maréchal, 2010, p. 44). My dual role as both insider practitioner-teacher and outside researcher caused me to encounter conflicting moments of tension between my different roles and duties. What might be in my interests as a researcher, or the interests of my project, were not easily reconcilable with my immediate obligations to parents, children, or colleagues. This had a clear ethical dimension when reflecting on my complex positioning within the research.

> As musicians and autoethnographers explore their sense of selves, they also face the potential darkness of vulnerability that comes with revealing their stories, lives, and creative decisions. This is no small challenge, particularly for musicians who have been so accustomed to keeping such personal characteristics and problems hidden from public view. (Bartleet & Ellis, 2009, p. 10)

In the early stages of the research, I resisted telling my story, because of potential vulnerabilities. I thought it worth the risk for the sake of future beginner pianists learning to play the piano and future piano teachers. The interdisciplinarity of my autoethnography and my ear-playing approach allowed me to write more explicitly about my changing practice using aural methods. This cross-fertilisation resulted in aural methods inspiring my autoethnographic writing, which supported my changed aural pedagogy.

I collated all the transcribed data into one document with three columns of my triple presence, interpreted in three different stages of writing my teacher reflective diary. First, I analysed my diary. The different participants' perspectives fed into and addressed the question of how I changed, and how my practice had shifted as part of the recursive process. The first column comprised the unedited, raw, in-the-heat-of-the-moment data of my teaching. I read and re-read the data and explored and examined my teaching practice and the developing concepts as time went on.

The second column comprised my subsequent reading of the diary as a researcher after a lapse of time. I reflected on my notated recollections of what happened, interpreted by my teacher-researcher presence. Being a music educator with a particular history and research focus influenced how I interpreted the data that I had available to me. For more fine-grained analysis, I looked carefully at data that suggested possibilities, without making everything fit neatly into boxes.

The third column entailed inquiring into the meaning of the data, by interrogating what occurred in the other columns at a further distance in time from my researcher's perspective. I stood back from the immediacy of the data and considered the implications for an adequate historicized account of my practice. To unravel and deconstruct problems, I questioned missing gaps and speculated about causes, effects, and possibilities. I introduced more provisional uncertainty to interrogate my diary and practice, without feeling compelled to find all the answers to the questions. The autoethnographic cross-examining of myself and others changed my views, efforts, and teacher identity (Anderson, 2006). It affected the decisions and changes I made and shifted my practice. I decided on what needed to be included, e.g., interesting, and significant narratives. I portrayed a historical picture of my longitudinal research by seeing what I did, and how I changed what I did, as the rigor of some variables emerged over time.

I added a fourth column for coding all the data manually. Creating a codebook with a list of codes helped me keep a record of emergent codes (Saldaña, 2016). I coded all the different kinds of data by categorising them and numbering how often they reoccurred, so that those with more mentions came to the fore. It was a means of organising the massive data and identifying significant moments and themes on which to focus my analysis and findings. I preferred having the ability to view all the

data at a glance in a Word document rather than compartmentalised in NVivo. I could interact with it more easily and not overlook anything. To make the coding decisions more focused, I brought my research questions to the fore (Saldaña, 2016). Initial coding of multiple types of data involved 150 codes. I reduced them to 121 codes and grouped them into 12 categories. These included:

Teacher with pupils	Pupil challenges
Teaching approach	Group differentiation
Teacher's expectations	Group dynamics
Parents' expectations	Playing by ear
Parental involvement	Notation reading
Pupil commitment	Setting

I wrote an analysis in continuous prose of strands of my coded data, which I had identified. From the codes that shared unifying features, I constructed three broad themes: parental involvement, differentiation, and group dynamics.

3.7 Ethics

3.7.1 Overview of ethical review process

I created information leaflets and consent forms for the piano teachers (Appendices A & B). I also created a child-friendly consent form using simplified language and tone appropriate for younger children (Appendices D & E), and their parents (Appendix F). The primary ethical consideration involved working with young children and their informed consent to decide whether they wanted to volunteer to participate. As questions might have arisen about the meaning of full and open information (particularly when working with children), and how respondents can access and understand the research project, I produced a research information leaflet for pupils that explained the research in simple terms for children (Appendix D). It included the aims of the project, participant musical activities, and the reasons I needed their participation. It provided details on researching with children as researchers (Alderson & Morrow, 2011). The leaflet stated participants were free to leave the research project at any stage. I communicated this again to the children and their parents in meetings.

I completed an ethics form that detailed and summarised the research project, based on the BERA ethical guidelines, which informed the ethical review process. It is in keeping with UCL practice and approved by my UCL supervision team at the time. It included: the purpose, aims, research questions, research design, context, data collection methods, participants' age range, vulnerable participants, data protection levels of personal data storage, how I obtained consent and informed participants about the research, and the recruitment process of children under the responsibility of parents or guardians. I received IOE UCL ethical approval on 8 October 2015. My research was also endorsed by the CIT CSM, as the music school's piano lab facilitated the research.

I recruited piano teacher participants for the focus group interviews through my professional network at the CSM. I informed them about the research by distributing the research information leaflets (Appendix A), answering their questions, and conversing with them in person, on the phone, and by email.

Informed consent occurs where participants agree to join projects, or refuse participation, based on full and open information on a project and its implications for them. This is a voluntary agreement by participants who consent to take part in a research project before it begins (Gregory, 2003). I gained written consent from piano teachers (Appendix B) prior to the research taking place. At the start of focus group interviews, I re-iterated the purpose for the research. I anonymised all of the data so that no teacher was identified in anyway, in any research outputs. Although piano teachers from the focus group interviews were privy to each other's data (Cohen et al., 2011), I used pseudonyms and mixed the sexes.

The head of the CSM Keyboard Studies authorised me to recruit participants from my own individual beginners and those of the piano lab teachers. I discussed the project with the other piano lab teachers and gave them the information leaflets. They discussed the research project with their pupils as potential participants and passed on the leaflets.

To meet the principle of informed consent, I phoned the parents of those beginners to offer their child a place in the piano lab. They discussed the research with their children to ensure they understood. Those who accepted attended a meeting with their child in which I briefed them about the research, answered questions, and gave

them the information leaflets (Appendix D) and parent and child consent forms (Appendices E & F). I encouraged them to ask questions. I used the opt-in approach whereby both child and parent signed the consent form after discussing it at home. They had the right to withdraw from the research at any stage, which included their data being destroyed. The consenting pupils, parents, and researcher signed two copies of the consent form. Participants kept one copy while I stored the other (BPS, 2021). After the discussion, the children had their first piano lab lesson. Perhaps phoning parents made them more obliged to participate, i.e., it was more difficult to say "no" than if they had received a letter or an e-mail. Some pupils and parents did *not* take up the offer or changed their minds later. Sometimes students' phone numbers were incorrect. Nonetheless, coercive power could be at play, so there are limitations to informed consent.

Informed consent often includes the researcher thoroughly informing potential participants about the research, what it will entail, expected time and effort of participants, and the research outcomes. For example, full and open information, particularly when working with children, might mean to discern whether consent is given grudgingly because of pressure from parents. Besides gaining participants' approval of the research, the researcher pursues informed consent out of respect for potential participants' autonomy (Gregory, 2003). S/he ensures the participants understand the research and its risks as much as possible.

Confidentiality means identifiable information about participants during a research project remains undisclosed, unless agreed in advance (BPS, 2021; BSA, 2017; Wiles et al., 2008). Researchers protect participants through a process of anonymisation using pseudonyms. Nevertheless, people might recognise participants in qualitative data. Ensuring confidentiality is limited and problematic. Researchers can argue they tried to ensure anonymity, but they cannot promise it (Wiles et al., 2008). Given the children might not have fully realised the impact of informed consent until a later stage, I anonymised all of the data so that no child was identified in any way, in any research outputs. I used pseudonyms and disguised identifiable characteristics (Gregory, 2003). However, it is difficult to guarantee 100% anonymity and avoid disclosure, as my name is written in my thesis. The locals could trace a person from the data presented about him or her.

Further, some pupils might have assumed they could have performed piano lab music publicly. I planned only to have informal performances for the parents of participants to keep their identity confidential, which might have disappointed some children. Indeed, I had to decline some pupils' request to perform piano lab concerts in public. I explained that despite deserving public recognition for their progress, confidentiality was required for the research project, even if it was not fully achievable. Participants needed to remain unidentifiable as much as possible, therefore I would not use their real names. Consequently, they only performed for their parents in the piano lab.

3.7.2 Ethical issues faced and mitigated

I omitted data concerning discontinued participants who participated briefly because that was part of the agreement with them at the onset of the study. In any event, data collection finished some years ago, and participants have moved on with their lives. All students transitioned to secondary school. A few emigrated, most continued with their music studies, and some discontinued. A couple of parents waived their right to confidentiality, but I refrained from capitalising on this, as it could lead to breaking other participants' confidentiality. The greater the number of people I identify, the wider the cascade effect of identifying participants.

> Guarantees of confidentiality and anonymity given to research participants must be honoured … Other people, such as colleagues … given access to the data must also be made aware of their obligations in this respect (BSA, 2017, p. 8).

A power and status dynamic are highly implicated because children possess little power compared with adults thus, are reluctant to challenge adults. It is imperative to remember at every stage of the research process that the child's status can hardly be considered as equivalent to the researcher's (Cohen et al., 2011, p. 78). A child interviewed by a teacher/researcher who represents an authority figure can influence the interview. Children might find communicating their desire to withdraw from the research difficult because they fear disappointing their teacher and/or parents. I took steps to avoid coercion arising from the teacher-pupil power relationship, which included being sensitive to pupils' body language. I checked in with their parents and requested that they contact me if their child wanted to withdraw. Occasionally, I found it difficult to resist teaching pupils in the piano lab focus group interviews while

interviewing them as a researcher. I found myself slipping back into my role as a teacher, correcting some of their answers.

As my study was a longitudinal study, I sought to renew consent from continuing participants at the beginning of each school year in September (BPS, 2021). Therefore, as pupils got older I gave them the opportunity "to confirm or to end the consent arrangement" (Alderson & Morrow, 2011, p. 114). Their parents were also required to consent, in addition to making the information as accessible to children as possible for the best situation.

Participants withdrawing from the project was a risk for me as it could have prevented continuance of my research. Therefore, I prepared a back-up plan for recruiting new participants. I had concerns that some pupils might discontinue because I allocated less time to advanced pupils and more time for weaker pupils. Filling their places would have meant recruiting new beginners, who would subsequently have to slot in and catch up on the remaining group's level of learning, which would cause more differentiational challenges.

I asked parents to record their child practising at the times of their choosing, with their chosen aural activities. Only the child, parent, and I viewed the videos. I did not share them with anyone else or discuss what I saw in the practice videos with colleagues. They, however, are not under the same obligation as a researcher or have the same understanding about revealing something inadvertently (Wiles et al., 2008). It was challenging to avoid letting information slip about pupils to colleagues. On one occasion, when I noticed a student seated far too low at the family home piano, I felt I had to inform the piano teacher. Otherwise, it would have been injurious for the child to continue playing like that. The parents subsequently purchased a properly adjustable piano stool.

I also needed to acknowledge the broad spectrum of children given the age range. Younger children might require a slightly different approach, especially in relation to the home video diaries. Some participants might withdraw from the research yet continue to study in the piano lab. As a result, I might give preferential treatment to those who continue to participate in the research and submit video diaries, which might affect the group dynamic. Some children might feel more special than others.

This situation never arose because participants who withdrew from the research also discontinued from piano lab.

3.7.3 Beneficence and impact

Beneficence (BPS, 2021; Mertens, 2005; Ravitch, 2018) refers to the capacity of a research project to benefit participants, the researcher, and/or other stakeholders. The current project benefitted the researcher by leading to improved teaching and curricular resources (Cohen et al., 2011). Findings had the potential to be disseminated to other music educators, thus enriching their work. The research benefited piano learning within the faculty because of the use of additional aural resources, literature, and developing broader musicianship skills of piano students. Participating children also gained aural skills and became knowledgeable about the processes involved in playing music by ear. It bolstered their self-esteem, and musically liberated and equipped them for future impromptu performances. The cost to their learning entailed performing within a group setting. Being called on to perform musical tasks and answer questions might have made them feel discomfort, stress, nervous, self-conscious, or vulnerable. They might have found the approach challenging. I endeavoured to minimise this by responding to children's cues, observing their behaviour, listening to their oral feedback, and consulting with them and their parents.

Participants who become social pianists may strengthen communities, entertain audiences, family, and friends, which is a potential societal benefit of the research. In the future, they may accompany singing groups or choirs, serve society through their music making and develop an interest in the welfare of others.

> Music and musicians are … recognised as having the special role of creating a space in social life and framing events as 'rituals' – a responsibility of deep and essential significance for our society (Finnegan, 2007, p. 593).

Inevitably, another benefit to participant research involving children and parents in focus group interviews was the mere fact of doing the research and others' awareness of it taking place. The effect is to valorise the object of the research, which in my case means what happens in piano lab *matters*. My pupils agreed. They said they enjoyed discussing their learning in the piano lab because they felt more valued (see Section 4.8), and I saw them as co-researchers.

There are similarities between Koopman's research and mine. Both longitudinal studies placed an emphasis on playing by ear as the principal activity while improvising became side-lined. Singing in tune was important. Some children had wide musculature differences. Most of them enjoyed and benefited from socialising with their peers. Gradually, parents became involved, accepted, and welcomed. Similar challenges of Koopman's and my research entail negotiating parents' expectations versus those of the music school and allocating more time to those who struggle. Both studies also share the feature of piano groups learning other musical genres of songs, in contrast to studio piano lessons learning the classical repertoire, which can take a long time to master.

My research contrasts with Koopman's in that his 5–7-year-old participants were pre-selected. My 6–10-year-old participants were non-selected other than the music school's entry audition. My participants learned 10 songs a year compared to Koopmans's of 25 songs. Groups in my sample mostly came from non-musical backgrounds, whereas his participants came from musical backgrounds. I had minimal classroom management issues with my older participants as opposed to the Project for Introductory Piano Education's major difficulties with the younger children. The project also did not use a specific intervention, whereas I used the *Jump Right In* intervention. Its well-sequenced soundtracks of songs with separated melody and bass lines made it easier for beginners to learn.

CHAPTER 4: GROUP DYNAMICS

4.1 Introduction

I open each of the data analysis chapters with a vignette, as a way of introducing the themes and getting the reader immediately into the exploration of music teaching and learning in the piano lab.

> Autobiographers can make texts aesthetic and evocative by using techniques of "showing" … which are designed to bring "readers into the scene" – particularly into thoughts, emotions, and actions (Ellis, 2004, p. 142; Ellis et al., 2011, p. 277).

The fourth chapter presents the findings of how group dynamics were represented in my data and shed light on the evolution of my practice. Each group had its own dynamic and my pedagogy inserted itself into those dynamics. Although I was part of the groups, my pedagogy affected the dynamic of groups and responded to theirs. How a group related to one another was not only determined by me, but it had to do with the different groups that I taught. For example, some groups were quieter or more confident than others. It impacted on how they felt about what they did or did not do, and what they thought about their individual sense of themselves in relation to other group members. Group dynamics had a profound and complicated impact on every aspect of my work and the pupils' development. I explore the different pedagogic challenges that confronted me and how I responded to them. I focus on key moments that are important in the story of the thesis and how my pedagogy developed over time in relation to the overarching idea of playing by ear. The chapter advances the thesis argument of how teaching to play piano by ear changed my practice through the distinctive ways groups learned, sought help, responded to, and competed with others. In addition, group dynamics affected the pedagogic challenges of the piano lab environment, which I discuss after vignette 1.

Vignette 1

I stopped playing *Go Tell Aunt Rhody* on the teacher's piano and stood in the middle of the room. Pointing at pupils individually, I invited them to locate the first note of the second phrase, and to play *re*. Henry, Grace, and Aiden found it. Eleanor got stuck:

> TEACHER: The next bit is going to be *r, rfmrd*. Where is *re*? …

ELEANOR: I don't know where it is?

TEACHER: *Do* is C. Play *do*, and *re* is the next one

Eleanor plays down

TEACHER: up, white notes only

GRACE: To the right

TEACHER: To the right.

Eleanor plays it correctly (Lesson with Group A, 12 November 2015, week 7)

The pedagogue Richard Chronister (2005c) said as part of a lecture in 1998 at the New School of Music Study in Kingston, New Jersey:

> For some reason, it is always a surprise to pianists that everyone in the world does not know that to the right on the keyboard is up (p. 15).

Thankfully, Eleanor and Grace knew. Just saying "the next one" or "up" was insufficient for Eleanor to pinpoint *re.* When Grace intervened by saying "to the right," Eleanor understood in an instant. Grace not only helped Eleanor. She also saved me and her peers time and propelled the group on to learning the next task. Eisenberg (1992, p. 109) suggests "parents of prosocial children" enable their child "to engage in prosocial actions," appreciate positive social behaviours, and promote "perspective taking, empathy, and sympathy." It is especially the case for those "who have warm, secure relationships with their caretakers." Grace was the epitome of a prosocial child. She instinctively understood how to relieve Eleanor of her confusion.

4.2 Communal music-making

> Thousands of children start to learn to play the piano each year. The eagerness with which they approach their first lessons is often short-lived. The piano is a lonely instrument, and it may be that the lack of stimulus derived from learning with others of the same age accounts in part for the enormous fall-out of pupils after a few years. The group-lesson combats this loneliness, and to a certain extent compensates the pianist for the lack of communal music-making so much enjoyed by those who play orchestral instruments. (Enoch, 1974, p. 1)

Piano lab learning offered participants communal music-making adjunct to their weekly individual studio piano lessons and reduced the isolation of piano learning.

An important part of the research is understanding the unique dynamic of the groups. Forsyth (2019) describes group dynamics as the leading social processes that happen within groups as time passes. These processes influence how group members connect and interact with each other. They also influence "the group's inherent nature and trajectory," which includes the group's activities, what it accomplishes and its response to the setting (p. 18). "For example, groups tend to become more cohesive over time."

My research addresses the gap on what happens in group piano lessons. It highlights which aspects affect beginner pianists' ability to learn, especially from their viewpoint (Hammar Chiriac, 2014). Participants included beginner pianists of diverse musical interests, autonomy, competency at practising, from different backgrounds and cultures. Lewin (1997) maintains difference and sameness does not form a group but "interdependence of fate" (p. 120). Standard groups comprise diverse personalities e.g., "two members of one family might be less alike than two members of different families." Despite the dissimilarities in temperaments and interest, two members might be part of the same group based on whether "their fates are interdependent." Fate or coincidence decided the placement of participants in the piano lab groups, based on when they began their individual studio piano lessons between 2015 and 2018.

Pike (2017) recommends allocating individual students into suitable groups based on their ability, so they can participate and learn in the best possible manner, as mentioned in Section 2.7. Streaming my participants into suitable groups was not possible, and indeed may not have been desirable, as they were not assessed, apart from their initial audition for admission to the music school. The fundamental explanation for teaching learners in groups relates to economies of scale, where one teacher can teach many learners all together. As mentioned earlier, the CSM resists economies of scale to protect studio instrumental tuition, which is expensive. The CSM piano lab was set up to allocate extra time for improving students' sightreading, as piano teachers have limited time to teach it in studio lessons. My research brought learning to play by ear on a par with reading music, which is appropriate for group learning.

4.2.1 Cooperative learning combats isolation

Pike (2017) observes that many students enjoy learning together rather than on their own, as it increases motivation and learning. "They usually spend 6 days practicing alone at home," and eagerly look forward to playing with a piano group (p. 162). Pianists spend much time in isolation. Being with others and seeing others struggle in a piano lab group environment can be comforting. I asked mothers about their child's feedback on learning in the piano lab:

> BETH (Bianca's mother): The comment that Bianca had made was that she loves coming in and being with the other kids
>
> IRENE (Jill's mother): I think so too
>
> BETH: you know, rather than, she loves the lesson, you know with yourself now, on one-to-one, but it's lovely for them to come *together* and have a bit of time … together, coz piano is … very lonely kind … of instrument because you're just playing it on your own, you cannot join the orchestra or anything. (Group B parent focus group interview, 8 December 2016, week 39)

Piano lab participants predominantly experienced cooperative learning *in* a group and sometimes collaboratively *as* a group. Veldman et al. (2020, pp. 9–10) note that working together involves numerous divergent facets and is a considerably complicated process that even grown-ups may have difficulty. One might thus assume that young children cannot collaborate. But "there is evidence that young children" can participate in group peer learning and progress through "cooperative learning" in the early years of primary education. Cooperative learning in the piano lab entailed whole group instruction of beginners learning songs by ear together. They listened and progressed through the different sequenced tasks and practised by themselves. In the process, they observed and learned from other pupils while improving individually and collectively, as in the following example:

> I played the *Triple Twinkle* soundtrack. As Qarla began learning it the previous week, I asked her to play first. I also asked Rachel to play along in time with Qarla with her piano's volume down, hoping she would pick it up that way. She adapted to the triple time and soon performed it herself. After the first two phrases, Rachel mastered the rhythm and synchronised her playing with Qarla's. Halfway through the song, I stopped Qarla and announced Rachel had learned it from Qarla's playing. I asked them to play the song again, this time with Rachel's volume up at a slow tempo, so they could learn to maintain steadiness together. They seemed chuffed with playing together again. (Teacher's reflective diary, Group D, 16 November 2017, week 65).

4.3 Structured learning in the piano lab

For the first year and a half, I structured weekly half-hour lessons around the *Jump Right In* aural-reading curriculum, which was developed for group learning (Grunow et al., 1999; Pike, 2013). Thereafter, I purposed to allocate equal time to aural and reading tasks for preparing pupils for their first piano examination, which included a sightreading test. I began with either aural or reading tasks for the first fifteen minutes, then in reverse. When I taught only reading tasks in a lesson, I taught only aural tasks in the next lesson.

Some children arrived early, extending the lesson to 45-minutes while I set up the room, prior to the first lesson. Longer lessons eased them into a variety of tasks for playing with greater fluency. Seven-year-old beginners seem to appreciate group learning more than teenagers for whom the novelty of piano lab learning fades. Lamont (2008, p. 238) maintains children seem to undergo "phases of 'open-earedness' such as middle childhood," where they can appreciate great quantities of musical genres. In contrast, teenagers seem to experience phases of "closed-earedness" with considerably limited musical tastes.

The piano lab teacher draws on "group theory, group dynamics, and collaborative-learning strategies in which students share in an active and creative learning environment" (Pike, 2017, p. 19). Sometimes my students had become acquainted with one another from their studies in the same music theory class. They chatted with each other in the corridor outside the piano lab while waiting for lessons to begin. A few pupils were anxious about joining the group initially and often chose the same seats every week to stay within their comfort zone. Over time, most of them became more confident and cohesive members of the group. The digital pianos' orchestral sounds genuinely fascinated and intrigued beginners (Salaman, 1997). For example:

> Michael brought his son Liam to his first piano lab lesson and mentioned that Liam did not want to go until he saw Conor outside prior to starting. Then he was happy, as they were in the same musicianship class. Conor showed Liam some unique sounds in the bass register of the digital pianos which Liam copied on his piano. Even his father got excited before leaving the room (Teacher's reflective diary, Group B, 4 February 2016, week 16).

Pupils lowered their music stands to play by ear. It eliminated barriers that hampered my observations of them and vice versa. Having privacy while practising using the

headphones helped them gain enough confidence to play in front of others. As in Green's (2014) description of the teacher's role in group environments, I regulated recordings, encouraged, guided, prodded, demonstrated, and calculated the best time for note-naming.

The children imitated the melody on the first half of the *Jump Right In* soundtracks. They copied the bass line on the second half of the soundtrack. Playing songs by ear in the very first lesson thrilled and empowered them. Sometimes they sang while reading the lyrics of other versions of the *Jump Right In* songs on YouTube (Figure 4). Other times they watched orchestral pieces. Accessing music on YouTube enabled us to find material, support ear-playing, and compare songs (Wise et al., 2011).

Figure 4: Using YouTube

Most of the groups eagerly practised the latest song as soon as they arrived, while waiting for me to begin the lesson. They relished performing for the group when they had mastered a song, especially a favourite one. Several pupils loved learning famous Christmas songs or the music of the Harry Potter film series. They also enjoyed writing notes on the board when they were sure of the answers. The emailed lyrics of songs motivated several of them for the next lesson. A few children became excited when their parent visited piano lab, e.g., Jill got very excited when

her father visited, whereas others became withdrawn. Some pupils were apprehensive about having to do homework and not getting it done. Others enjoyed reading it on their mother's iPhone during lessons.

4.3.1 Piano lab configuration

Small and Walser (1996) note how the design of "the orthodox classroom" mimics "the orthodox concert hall, with its rows of desks facing the blackboard and the teacher" (p. 185). Such a setting signifies "the direction from which knowledge is to come" and affirms teacher-pupil rather than peer engagement. Traditional rows are teacher-centred, geared toward lecturing and presenting. The formal positioning of the digital pianos in rows furthers traditional-teacher-dominated instruction. It prevents teachers from seeing pupils' hands while demonstrating from the teacher's piano (see figure 1), as observed in the following lesson:

> While directing the group, I resisted walking to Conor's piano at the end of the lab to observe him play *Go tell Aunt Rhody*. The two-row seating arrangement hindered my panoramic observations of Conor's hands. It also constrained me to teach from the front of the class via whole-class instruction. I missed noticing that he was off task, not singing, or playing. (Group B, 12 November 2015, week 7)

The only means I could observe pupils was by constantly walking around the lab. This kind of setting encourages individual work, minimises pupils' ability to imitate each other, and keeps the focus on the teacher. It acts as a barrier and isolates students into separate compartments of the room, which discourages student-centred dialogue. Such "spatial arrangements" (Kress et al., 2005, p. 89) inhibit social relations, limiting peers from interacting with each other (Figure 2).

According to Shulman (2005), the structural layout of classrooms usually follows those forms of teaching commonly used within its discipline, which advocates "pedagogical inertia" (p. 57). Only the most rigorous changes of teaching practice are "sufficient forces to redirect that inertia." While presenting my research at a conference during the second year of the project, another presenter noticed my photos of the piano-lab's traditional-rows. She recommended a circular environment to allow pupils to engage more. Her advice made me reflect on how the rows hindered me from observing students' hands and constrained me to teach whole-class instruction, students' least favourite way of learning (Smith, 2014). Therefore, I

rearranged the pianos in November 2016. Some pupils sat next to each other while others faced one another across the centre of the lab. They all had their backs against the walls[1]. Every teacher who used the room consented to the rearrangement. Unfortunately, the electric keyboard sockets were placed inconveniently on the walls (Figure 5).

Figure 5: Improved circular piano lab

A way to guarantee observing for success, hindrances, and lesson deficiencies is monitoring "based on a constant scan of the students in the room or online" (McCarthy, 2017, p. 27). Teachers can then use the findings to make adjustments for addressing all students' needs. Although the circular layout might have overwhelmed shy pupils, it was more learner-centred and flexible. It facilitated group skills through teamwork of pupils and teacher cooperating, communicating, and interacting with one another. It saved time because it reduced the time that used to force me to walk around the lab to observe pupils. Pupils could also anticipate their turn quicker when playing a song one by one. I could monitor pupils from different angles. A slight move to one side enabled me to scan, at a glance and in an instant, four students

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1 I took a piano-lab-poll of all five piano lab groups I taught on 17 November 2016, including non-research groups and parents of Group C. The poll question asked, do you prefer the circular piano lab or rows? Out of 22 pupils and two parents totalling 24 participants, two voted to go back to rows, 21 voted to keep the room circular, one did not vote. 87% of those participants polled favoured a circular environment.

playing to determine how they were doing. While I demonstrated on one of the four students' pianos on one side of the lab, all four students could observe me and then interact in pairs or trios. Students seated together could observe one another and determine their next course of action.

Although the upgraded seating arrangement was an improvement, it remained constrictive, owing to the barrier between the two sides of the lab. Extra chairs for parents blocked my passage to assist students (see figure 5). I could not see them from my piano while I played or accompanied them. Helping a struggling pupil meant I could not observe pupils on the opposite side of the lab. Therefore, I could not determine whether they struggled, played in the correct octave, or with the wrong hand. The constant walking around the lab checking progress wasted precious time.

4.3.2 The ideal piano lab

More can be done to improve the space for all users (Pike, 2017). For the ideal piano lab presented here, I draw on my first-hand fieldwork experiences, ideas prevalent within the practice in the USA, and the literature. McCarthy (2017) defines the learning environment as mapping out the room so it enables the success of every learner, using pods, circular groupings in areas assigned for reflecting and discussing quietly. Learners' success relies partly on how "nurturing or sterile" the classroom culture is. Students thrive when they feel they belong to the class and school. "This includes how the area is set up" (p. 15). A piano lab configuration needs to accommodate a variety of usages. Students benefit from furniture and lab space that complements teachers' teaching styles. Separating students discourages them from interacting, stifles creativity, and reduces cooperative learning and productivity. Crawford (2014, p. 57) supports a setup that brings "the real world into the classroom." The traditional scenario of students as "passive recipients of knowledge" is incompatible with learning the realities of life (Lave, 1988). Bandura (1997) believes creating a classroom setting for developing "cognitive competencies rests heavily on the talents and self-efficacy of teachers" (p. 240). It is the instrumental teachers' role to enable a helpful and communal setting that motivates pupils, according to Lennon and Reed (2012).

Fisher (2010) maintains that "piano laboratories should be arranged so that the teacher can easily observe all students and their hands" (p. 36). Ideally, a T-shaped piano lab could be arranged by placing six digital pianos back-to-back in the centre of the lab with the teacher's piano at the top. Electrical sockets could be concealed in the centre of the floor. Having the pianos back-to-back would give piano lab teachers a bird's-eye view of everyone's hands at a glance. While working with strugglers, the teacher could monitor advanced students so they could determine sooner their next course of action. The teacher could see pupils' hands, spot incorrect hands on the keys, or position, and notice their difficulties sooner, especially while accompanying groups. Children could engage with more peers. The extra space would allow parents to sit next to their child without getting in the teacher's way. It would promote a safer environment with hidden plugs and piano leads out of the way (Figure 6).
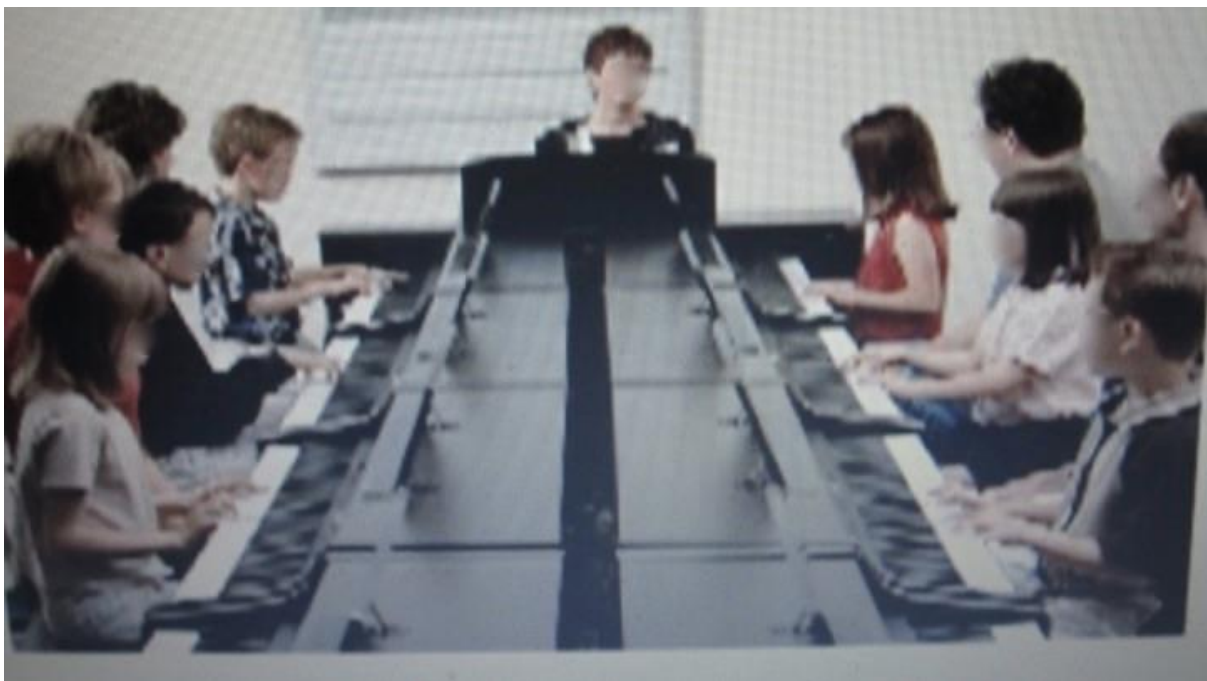
Figure 6: The ideal T-shaped piano lab

According to Deborah Moore (Criswell, 2019), designing a piano lab is more complicated than merely determining the purchase of pianos. It should optimise space. Infrastructure to support equipment must be installed first, otherwise, inappropriate wiring will become a trip hazard and look inconsistent. The conduit for a new piano lab should "run under the floor" during construction to reduce cables

and wiring, so wires do not go everywhere. For an existing piano lab, there may be no alternative except to figure out how to adjust "the wiring on the floor" (p. 18). I inquired into rewiring and transferring the wall sockets to the floor in the centre of the lab in September 2019. Staff members who used the room thought it was a sensible idea. In September 2020, the keyboards were switched back to their original positions in rows, because of Covid-19 and replaced with new Yamaha digital pianos with limited orchestral sounds. By then, pupil participants had finished studying with me, therefore, I did not know their views regarding the return to rows. Different staff members also began using the room, which resulted in fewer discussions about it. Kelchtermans (1996) claims vulnerability encompasses feelings of helplessness and "an inability to create the workplace conditions one considers necessary for good job performance and job satisfaction" (p. 319). Factors from costs to pandemics constrain pedagogic choices, which have implications for teachers and students. They hinder the usage of more creative pedagogies, which frustrates teachers (Figure 7).

Figure 7: Pandemic rows

4.4 Group profiles

Many piano lab teachers do not have the time to document their experiences, according to Pike (2017). To date, reliable methods are scarce for "disseminating this information widely to those who are interested in availing themselves of the best group-teaching techniques" (p. 42). I relate key moments of piano lab group dynamics and why they are significant to me, as I consider my developing practice. A profile of each group follows. It considers pupils' interdependent relationships. I anonymised the four group participants under pseudonyms:

> Group A: Aiden, Eleanor, Fiona, Grace, Henry (September 2015 – May 2016)
>
> Group B: Bianca, Conor, Isabella, Jill, Liam (September 2015 – May 2018)
>
> Group C: Kaylee, Maria, Nicki, Oliver, Penelope (September 2016 – May 2018)
>
> Group D: Qarla, Rachel, Sophia, Tanya, Vincent (September 2017 – May 2018)

Group A Aiden, Eleanor, Fiona, Grace, Henry (September 2015 – May 2016)

Aiden's experience of Suzuki violin prepared him for playing the piano by ear. He found remembering what he had learned in the lesson challenging when he went home, but he learned to read notation without difficulty. Eleanor found reading music very difficult, whereas playing by ear and improvising came naturally to her. Fiona and Grace studied individual piano with me, as well as in group lessons. Fiona played by ear and read music competently, although she was the least committed. She was the only student insecure with singing in sol-fa. Grace learned to play by ear and read notation, which did not pose major problems for her, although her progress was sometimes erratic. She transferred to Group B for the second year when Group A discontinued at the end of the first year. Henry found learning melodies by ear easier than bass lines. As a result, he struggled with playing hands together. He sang out of tune. Often, I had to split this group into two subgroups because of the wide ability levels.

Group B Bianca, Conor, Isabella, Jill, Liam (September 2015 – May 2018)

Bianca and Liam studied individual piano with me in the piano studio, as well as in the piano lab. Bianca was proficient in playing by ear. She found reading notation

more difficult, although not as severely as Eleanor in Group A. By 2020, Bianca's sightreading improved while her aural skills declined. Conor was quick to pick up everything in the lesson. He found remembering what he had learned in lessons difficult when he went home. Isabella was an exemplar of having wide musicianship skills. She learned everything fast except for improvisation. Jill was enthusiastic about asking questions. She found learning to play by ear difficult in the early stages, but noticed it got easier as she persevered. Playing by ear came naturally to Liam, whereas he had to work hard to read notation. In his first year of learning piano, he used to race through songs and his classical pieces as fast as he could. He took a more cautious tempo after his first piano examination.

Here, I address group dynamics, as manifested in the context of my piano lab teaching. Mixed ability Group A included some children who found the tasks very challenging. For example, a few of them found playing a bass line or hands together by ear very difficult. There were insecurities with using sol-fa, singing in tune, or reading music. The unique struggle each member experienced kept some of them reliant on me and preoccupied with overcoming difficulties.

My experience of teaching Group B pupils of similar ability differed from that of teaching Group A. The struggles of Group B were less severe. They collaborated with me and peers as an integrated group, in pairs or alone. They enjoyed congregating and chatting in the corridor before lessons over the years, as the piano lab became their social music activity (Pike, 2013). Their personalities jelled as they co-laboured toward improving their keyboard skills, led by a high achiever like Isabella, whose example of practising spurred them along each week.

> Early on, students learn which of their classmates will emerge as risk takers (within the context of the class), who will be comfortable leading the group, who will ask questions, who will volunteer to play out loud, and who will provide comic relief. When one of the class "leaders" is absent, it can completely shift the dynamic of the group, often empowering other students to take on leadership roles. (Pike, 2017, p. 46)

Isabella was the leader of Group B, Jill the questioner, and Conor provided comic relief. An example of group dynamic shifting is when a previously absent leader returned to piano lab and had to depend on a peer to catch up:

> Isabella and Liam were absent the week before the Easter holidays. I had not seen them for three weeks. They needed to learn *Patsy Ory, Ory, Aye*. While I worked with Liam and Conor, the girls discussed ideas to assist one another. Dividing the group into pairs of boys and girls enabled peer learning and self-study. Jill helped Isabella catch up when usually the opposite would have occurred. Jill benefited from leading Isabella, who had to depend on Jill, for a change. Her new leadership role caused her to learn how to scaffold ear-playing into small chunks for her piano lab friend. (Group B, 7 April 2016, week 21)

Pupils sharpen their views and tailor their explanations to meet the needs of peers through reciprocal peer tutoring, comparing, contrasting and integrating their perspectives with others (Webb, 2009).

Group C Kaylee, Maria, Nicki, Oliver, Penelope (September 2016 – May 2018)

Penelope, aged six years old, was the youngest pupil. Her tiny hands struggled to manage playing the piano. Her experience of learning Suzuki violin benefited her piano playing aural skills, but she found reading notation quite difficult and had little patience for it. Maria was a piano student of mine. An even-keeled student, competent in both reading and playing by ear, she made steady progress. She enjoyed the collegiality of piano lab. She appreciated observing how others struggled and corrected their mistakes. Kaylee, Nicki, and Oliver found playing by ear difficult. Kaylee made good progress aurally but only attended for two months. Oliver enjoyed learning to play songs by ear more than his curricular classical repertoire in studio piano lessons. When he liked a particular song, he had sudden spurts of progress. He did not enjoy practising at home, which impeded his progress. He ceased lessons in 2019. Nicki had a habit of rushing, which hindered her aural progress. She composed her own music at home. Thus, she enjoyed learning songs by ear and was always the first to improvise when improvisation was on the agenda.

This group was shy. I could hardly hear them because they used to quietly whisper-sing. Their mothers attended lessons to assist every week. They too seemed introverted and sang in a whisper when singing with the children.

Group D Qarla, Rachel, Sophia, Tanya, Vincent (September 2017 – May 2018)

Qarla and her mother Theresa, who learned the piano as a child, attended lessons together, so Qarla came to lessons well prepared. When she saw others faltering, she was quick to help them. Theresa stopped attending after a couple of months, and Qarla had to adjust. She floundered without her mother at first. Perhaps she

became too dependent upon Theresa, which might explain why Theresa stopped coming. The time arrived for Qarla to seek help from other pupils when she got stuck.

Rachel used to arrive 10–15 minutes early every week. At first, she trailed behind the others. She needed a month to begin to understand ear-playing and music reading. Once she got used to them, she made steady progress and managed to keep up with the others. She became a cautious reader, ensuring she kept her eyes on the notation more than on her hands. Perhaps a little competition with the other pupils motivated her.

> I began the lesson by teaching them the 5 Cs. A good way of locating them was to name them *Very high C, High C, Treble middle C and Bass middle C, Low C and Very low C.* I tasked them to locate some of the Es near those Cs. When they found them, I asked them how they did that. Rachel said that she counted up from the Cs. I praised her for finding her own way of doing it. (Teacher's reflective diary, Group D, 15 March 2018, week 78)

A simple answer from Rachel about how she deciphered the notes was easier for the group to remember than my long-winded explanation. The interaction of peer models can be fun, inspiring, and more powerful than teachers as role models, because peers are similar and their success can seem more achievable (Fisher, 2010; Uszler et al., 2000).

Sophia's mother often mentioned Sophia loved practising the piano. As soon as she arrived home from school, she went straight to the piano to practise. She enjoyed making friends and working in the piano lab environment.

> As I walked along the corridor, I noticed Rachel and Sophia talking with one another, becoming buddies. They discussed their reading books while waiting for piano lab to begin. I asked them if they wanted to set up in the piano lab. When I returned, they were practising *Frosty the Snow Man*. (Teacher's reflective diary, Group D, 14 December 2017, week 69).

At first, Sophia found reading music more challenging than ear-playing. She used to rush when reading familiar songs. I invited her to play slower and to stand so she could point at the notes to read them accurately, which helped:

> Instead of *smm frr* for *Lightly Row*, Sophia played *ssm ffr*. I asked her to point at the score to determine how often she should repeat the first note. She said "once," then realised her mistake and sorted it out herself. One question helped her focus on what might be amiss and solve it herself (Group D, 1 February 2018, week 74).

Tanya sang in musicals, so she picked up piano playing quickly. She understood what to practise from the emailed homework, even when she only sporadically attended lessons. She ceased piano lessons after the first year. Vincent began piano lessons from the second term in February 2018. He played carelessly, rushed, and resisted fingering advice. Nevertheless, he preferred learning with others in the piano lab group scenario more than in individual studio lessons with me, which is reminiscent of Oliver in Group C. When the research project finished, Vincent and his mother were *very* disappointed that piano lab did not exist for pre-Grade 2 pupils.

Group C comprised mixed abilities. The majority of the mothers attended piano lab lessons every week with their child, which, out of the four groups, was the most in-lesson parental involvement. Pupils' diverse difficulties with ear-playing and music reading, besides their different levels of commitment to practising at home, contributed to sometimes erratic progress. The similar ability of Group D pupils aided their consistent progress, as group members blended well with one another musically and socially.

4.5 An assortment of group learning

4.5.1 Group learning on one piano

By the third year, I often taught groups with everyone playing on *one* piano. Sometimes, I demonstrated in the middle of the piano while pupils stood on either side of me, aligned along each of the piano's seven octaves. They prepared their hands for learning songs in the penta-solfa five-fingered position. After I played one phrase at a time, each pupil imitated alone and then together. I usually ended with students who had been absent, so they could observe the others before their turn. Sometimes I demonstrated on the newcomer's or struggling student's piano, so they could observe close up. Learning from one piano facilitated an instant panoramic view of all hands. They could observe me and one another with ease, and I could observe them.

Group playing on one piano also worked for sightreading. The quintet, quartet, trio, or duo could read two-handed rhythms. It was a fun way for groups to play the piano percussively together on one piano. Rather than clapping the rhythm, they sightread

rhythms with one finger playing one note in each hand. Learning at the teacher's piano varied lessons and sounded quite impressive when everyone played correctly and together. It sometimes took less time to teach four small beginners to play together on one piano, than teaching them as a group at their own pianos, where I could not see their hands.

Despite the piano lab impediments, I discovered a way to conserve time. I made use of the children's petiteness to improve being able to see them playing. My practice evolved in the piano lab's particular space as I reflected on and responded to issues arising during lessons. It gestures at an understanding of teaching as never merely implementing a preconceived plan. There is always an element of improvising, emerging from a sense of learners' needs, difficulties, enthusiasm, and motivation. My improvised pedagogy occurred by instinct when a new group of petites, cordial, beginners arrived, delighting in each other's company. They enjoyed being close rather than feeling distant and spread out across the lab.

4.5.2 Forces that shape group dynamics

Johnson and Johnson (2008) suggest that collaboration "compared to competitive and individualistic efforts, tends to result in greater achievement, more positive relationships, and greater psychological health" (Johnson & Johnson, 2008, p. 9). Group interaction allowed pupils in the piano lab to forge new meaning cooperatively with one another. Collaborative group learning, in contrast, might include each pupil learning individual parts of the same piece of music. My participants of beginner pianists did not collaborate as experienced ensemble musicians or choral singers. They needed to learn basic keyboard skills first.

Each group has its own dynamic of forces that motivate group members to develop. Cartwright (1951) defined group dynamics as "the forces operating in groups." Exploring group dynamics involves enquiring into "what gives rise to them, what conditions modify them, what consequences they have" (p. 382). Forces that cause group dynamics in the piano lab concern pupils' distinctive way they learn cooperatively or alone, seek help, compete with group members, or respond to teachers and peers (Johnson & Johnson, 2008). Conditions that modify group dynamics involve personality and level of prosocial predispositions. It depends upon

how they feel about each other, whether they feel isolated or part of a team, competitive, better, or worse than peers. Also, differences in whether groups are supportive, motivating, encouraging, or critical could change the dynamics in an instant. When beginner pianists stalled, for example, and dragged the tempo, the others might have waited patiently and offered hints to help others catch up. Others might have been impatient. Some pupils might have felt insecure about their keyboard skills in a fast-paced group but confident in a lower ability group. Certain pupils could have felt uneasy about playing inaccurately, which others might have shared. Several pupils may have envied those who succeeded or found piano playing easy.

"Just as personality traits may push people toward groups, other personal qualities may push them away from groups" (Forsyth, 2019, p. 98). The give and take, push, or pull, thrust, or drag within a group involves a multitude of complex scenarios that can crop up at a moment's notice. The pragmatic implementation of group dynamics comprises "the utilization of knowledge about these forces for the achievement of some purpose" (Cartwright, 1951, p. 383). Investigating group dynamics in the piano lab meant using knowledge about these forces to achieve my overarching pedagogical purpose, of improving beginner pianists' ear-playing skills. They learned how to play at the same tempo as the group, how to evaluate peers, and from others evaluating them (Enoch, 1974). Often, the piano lab became a hive of activity as everyone busily mastered the music and accomplished the tasks. If their peers could do it, they could hope to succeed as well.

A specific recollection of such moments in a lesson concerns the individual difficulties pupils had when learning *Drunken Sailor* by ear. I had to juggle helping the group progress through the different stages, which culminated in reading the score. As usual, Isabella in Group B endeavoured to achieve the task to the best of her ability and set the pace for the others. Both she and Liam were the first to learn to play *Drunken Sailor* hands together by ear, thus proceeded to read the melody and the bass chord symbols hands separately. As it was one of Liam's favourite songs, he played it musically with more slurs, though a little slower than Isabella. Competing forces propelled them along. Liam seemed more competitive with Isabella than he was with the other girls. Meanwhile, Jill and Grace needed to revise the song by ear, while Bianca had to start from scratch, having previously been

absent. I asked Jill, Grace, and Bianca to sing the melody and bass lines together using sol-fa while playing. Then I checked each one individually. Jill needed help with the bass line. Bianca required the most help. I demonstrated each phrase which she imitated, all the while singing in sol-fa. Eventually, Bianca and Jill practised while I checked on Grace. The ending confused Grace, but she knew the song:

> GRACE: I know that bit, hands together. Is that all we have to know for it?
>
> TEACHER: Yeah, do you know the ending?
>
> GRACE: Ah yeah,
>
> TEACHER: Show me the ending
>
> GRACE: Well, the ending, I don't know that bit … [plays the song]
>
> TEACHER: Good girl, you're ready. That's what you do at the end.
>
> GRACE: Oh, I thought there was another part.
>
> TEACHER: Oh well, there is another part, but it's the same thing.
>
> GRACE: Do you just do the same thing? Oh!
>
> TEACHER: The same thing, yeah. Ok, well done. (Group B, 23 March 2017, week 50)

By the end of the lesson, the four pupils had progressed to reading the score, while Bianca practised playing it hands together. I rewarded them by announcing they would begin learning *Hedwig's theme* at the next lesson, which thrilled Bianca and Grace:

> BIANCA: I have the *Hedwig's theme* in … a place where there're loads of books and then my sister is playing it for me.
>
> TEACHER: Very good …
>
> GRACE: You don't know how obsessed I am with *Harry Potter*. Yeah, me and my friend in school we both said [inaudible] and cardboard and stuff, and for my project when we were having to present something, I did *Harry Potter*. (Group B, 23 March 2017, week 50)

Managing the piano lab activities depended on my knowledge of pupils. At the same time, I had to be prepared to be surprised by them, doing things, and knowing things I had not expected.

For background music as pupils entered the room, I played a brief clip of *Hedwig's theme* from the BBC proms on the computer. It mesmerised Rachel, judging from her reaction. She said she had no idea there were so many instruments playing this music. Qarla also became fascinated with seeing so many musicians. Sophia arrived at piano lab toward the end of the clip and Rachel and Qarla boasted they had just witnessed the most amazing thing. I bargained with them that if they completed the tasks, they might have enough time to watch the performance again. The instant I asked who could play the song *Oats, Peas, Beans and Barley,* all hands shot up. They played it together as a group while I sang the lyrics. Then they repeated playing it together while singing the lyrics themselves, followed by solo playing. Next, each pupil read the music alone and later as a group, eyes focused on the music rather than on their hands. I switched off the light at the end of the lesson and they watched *Hedwig's theme* with delight. Qarla could hardly restrain herself from dancing to the music.

They watched *Hedwig's theme* again at the end of the following lesson. Qarla announced she had learned it, so I asked her to perform for us. I marvelled she had learned the music in f minor. I showed her how to transpose it to e minor in the same key as on the YouTube link. The next week Rachel and Sophia learned the opening phrase in e minor. I asked Rachel to teach Qarla to play the beginning in e minor, as Qarla had learned it in f minor. Perhaps f minor was in tune with her piano at home. When I asked them for feedback, they all said they preferred learning *Hedwig's Theme*. (Group D, Reflective Diary, 26 April – 10 May 2018, weeks 82–84)

YouTube "provided students with authentic examples of musicians playing pieces they were working on" and demonstrated "music-related skills discussed" in the lesson (Wise et al., 2011, p. 130). Group D mastered the art of playing while singing the lyrics of *Oats, Peas, Beans, and Barley*. Qarla took the initiative to learn *Hedwig's theme* by ear at home. Familiarity with the music affected pupils' learning of it because they were aurally familiar with the desired sound (Frewen, 2010). Their use of trial and error became more effective in identifying when they played accurately. They could quickly identify incorrect notes and stay motivated until they mastered it.

I wondered why the girls were so enthusiastic about watching an orchestra performing *Hedwig's theme*. They were familiar with John William's film music aurally but had not imagined the musicians behind the scenes performing the music. Perhaps they never attended or watched an orchestral concert up close on TV before. I was glad I had made a note of Group B pupils, Bianca, and Grace's enthusiasm for learning a *Harry Potter* piece of music. Others could enjoy the benefits of watching the orchestra playing it on instruments, especially the opening theme on the celesta, which pupils later imitated on the digital pianos' celesta.

Regular feedback helped me use the knowledge I gained from consulting with them about their preferences and broadened their song repertoire. Using knowledge about the groups' world of film music and tapping into their favourite songs gave them a stronger sense of purpose for learning to play by ear. It enhanced their aural, visual, and kinaesthetic knowledge, which potentially might lead them to continue becoming musicians and even follow in the footsteps of the orchestral players.

4.6 Reading music with a little help from peers

Grace and Fiona were ahead of the other pupils, preparing to read the notation of eight three-note tonal patterns which they had learned to play by ear. The time came for them to read the notation of the patterns. The others observed in the background so they would know what reading the notation of the tonal patterns would be like. While they listened, Fiona sang, read, and played each three-note pattern. I stood near her, guiding her along with a few fingerings, coaxing her to the next pattern. I checked she was actually reading the notation and not reverting to ear-playing. She read the first two patterns but stalled from the third pattern. Eventually, Henry began singing the pattern that she struggled with, which I made her aware of. His singing helped her, so I encouraged him to carry on singing the patterns while she tried to read and play the notes. Little by little she made her way through the eight tonal patterns with a little help from her peers:

> TEACHER: Fiona is reading it now, look she's got the music here, so this is the next step up, reading it. And let's hear you (Fiona) sing it? Listen (to the group) …
>
> FIONA: *d m d* (reads, sings, and plays the first pattern)
>
> TEACHER: Very good. So, you're on the next one.
>
> FIONA: *r t r*
>
> TEACHER: Good girl, next one
>
> FIONA falters
>
> TEACHER: (demonstrates how to jump to the lower '*soh*') and you somersault down
>
> HENRY: *d s d* (sings the next pattern, bobbing his head from side to side)
>
> FIONA: *d s d* (sings, reads, and plays the third pattern)
>
> HENRY: *r t s*

TEACHER: He's telling you; he's got it … sing *re*

FIONA sings, reads, and plays *r t s*

TEACHER: Help her out, Henry!

HENRY, AIDEN, ELEANOR & GRACE join in singing *s r t*

FIONA imitates *s r t*

TEACHER: and the next one

GROUP sings: *d m s …*

FIONA sings, reads, and plays *d m s*

TEACHER: And the next one, folks?

GROUP sings: *s f r*

FIONA imitates *s f r*

TEACHER: and the last one, lads?

GROUP: *d m d*

FIONA: *d m d* (Group A, 14 April 2016, week 22)

Reading notation unsettled Fiona's focus and vision. Her head bobbed back and forth from the score to her hands, searching for the correct keys. Connecting her mastery of playing the tonal patterns by ear with reading them proved difficult, because of having to look closer at the score and away from her hands. Although she could play the patterns aurally, she struggled to decipher them as notation. As singing is scaffolding within the brain, I urged her to sing the notes in sol-fa, all the while wondering if I was expecting too much of her.

Fiona was unfamiliar with using sol-fa, unlike others in the group, therefore, I doubted if she had attended all her music theory lessons. She missed five piano lab lessons prior to this lesson and seven over the entire year, which was substantially more than the average student. As the year progressed, it became apparent that she attended either her studio piano lesson *or* her group piano lab lesson, rarely both.

Henry's singing sol-fa intervention helped Fiona to progress. She might have found playing the patterns by ear easier at a faster tempo. Playing them at a slow tempo might have interfered with her memory of how they should sound. Henry's singing

helped her remember the patterns, albeit at a slow tempo. At first, she seemed oblivious to Henry's help. She was too busy trying to cope with the task. Perhaps she did not enjoy being the centre of attention and felt vulnerable when everyone ended up helping her. Richerme (2016) suggests students "may feel vulnerable" when they improvise and perform for an audience of peers and "wonder about the extent to which others will accept or appreciate their contributions" (p. 34). Fiona formed a positive response in that she noticed their efforts, accepted their supportive singing and my endorsement of their help, and overcame her insecurities with sol-fa and reading notation. She realised the group was *for* her, not against her.

Fiona was also my piano student. She had additional help with the songs and tonal patterns in her piano lessons with me. Because of encountering the songs in her piano lessons, besides piano lab, she felt confident about being more advanced than others. She had a good ear and a supportive and encouraging mother. She was musical and a quick learner, so she picked up the songs quite fast. However, she lacked commitment. It seemed like her mother wanted her to learn piano more than she did. She had other interests and hobbies that took priority over music. When the time came to learn curricular examination pieces, the commitment required for learning piano at the school became intolerable for her and she lost the will to persevere. When asked in a pupil focus group interview about her thoughts on the fun things in piano lab, she said, "working as a group and playing songs together" (19 May 2016). Perhaps she found one-to-one lessons intimidating but playing other music genres with a group more enjoyable. She did not seem to enjoy learning tonal patterns as much as songs. Nevertheless, underneath it all, she may have appreciated the experience of the group helping her by singing along, establishing a musical path for her.

Listening to Fiona's hesitations might have bored peers. Henry sensed her struggle with reading and instinctively helped her by singing the tonal patterns ahead of her as she read and played them. He appeared oblivious to his own response of bobbing his head from side to side, singing, and punctuating notes. It intrigued me that he was the pupil I least expected to sing in the group. Yet, he was the one who musically interacted with Fiona through singing, as if he could not help himself. When pupils collectively participate in playing music and assist each other, "they assimilate the information in meaningful ways and believe in their individual ability to

learn music" (Pike, 2017, p. 163). Despite Henry's difficulty with singing in tune, he sang surprisingly well when helping her. He could sing the tonal patterns in tune, but not melodies and bass lines. Repetitive listening to the patterns in lessons familiarised him with them to such an extent that he anticipated the notes. He grew so familiar with them they had become earworm-tonal-patterns, compelling him to sing them (Azzara, 2008). His leadership encouraged the others to support Fiona through singing.

Eisenberg (1992) suggests pupils help others owing to a "concern for the peer, to get something in return, or to impress an adult" (p. 19). Children may not always understand their reasons for helping other children or they may be incapable of articulating their motives. As discussed in Chapter 2 (Section 2.7), Hepach et al. argue two-year-old children help other children out of concern for them. When they get older and socialise in school, their self-reputation increases as they adapt to acceptable conduct that promotes collaboration and penalises non-collaboration. Eight-year-old Henry seemed to help Fiona because of a genuine care to help a peer rather than getting anything in return, or impressing me. He was interested in providing help through his singing. It demonstrates the truth of Finn's (2019) claim that caring for the wellbeing of others is a powerful and essential motive for young children to provide helpful acts, especially in the collaborative environments of education.

There was a noticeable change in the lesson when I invited Henry to sing the patterns. Eleanor, Grace, and Aiden pricked up their ears that instant to pay attention. On impulse, they chipped in singing the final three patterns ahead of her. Perhaps they too desired to sing the patterns like Henry but were too shy. Nevertheless, they were eager to please me. The group grew into a collaborative team effort. Like Henry, they anticipated the tones that Fiona should play and sang them to help her. The lesson became more meaningful when they responded like musicians to a peer's musical endeavours, rather than listening passively while waiting for their turn. Fiona's success meant their success, which I capitalised on. When participants are in social synchrony with one another, their gestures and body language reveal their unified inner mood (Turino, 2008).

I discerned the group's capacity for learning increased while listening to Fiona for a minute and a half. They became more interested and immersed in helping her. Moreover, the challenge of teaching different students with various levels of commitment was easier to do when the group was musically united. It was a pleasure to observe the group interacting like that. By accident, Henry's singing helped me to stumble upon using the group's singing as another way of addressing the challenge of connecting notation reading with ear-playing. Earlier in the Chapter, I raised the issue that I am part of the dynamic and the development of my pedagogy had effects on the dynamic. What emerges from the above incident is my pedagogy responds to the pupils: they teach me to teach more effectively.

4.7 Vulnerability and personality challenges

Piano lab work is riddled with uncertainties. For example, Nias (1989) asked how can one reconcile the needs of individual pupils with the entire group? According to Enoch (1974), competitiveness and the collective achievement of the group being reliant on the achievement of each group member make it essential for each person to practise: "This hastens progress and, in consequence, the interest in playing" (p. 1). I felt under pressure trying to meet pupils' and their parents' needs and fought off guilty feelings when I could not do so. Nias (1989) exposed problems which teachers confront and originate from perspectives conveyed by external forces, including parents or the government. Teachers' unavoidable powerlessness to fulfil "their own consciences and their wider audiences leaves them feeling simultaneously under pressure, guilty, and inadequate" (p. 193). Pedagogical challenges that confronted me included being attentive to different learners at the same time and managing different levels of commitment. During the first year, working out how to introduce new material or concepts, and how to sequence tasks within my local context was complicated. Pupils who came unprepared, tardiness, or regular absences made retaining what they had learned problematic, and limited progress. It also hampered progress for the other group members and my pedagogical efforts. Pike summarises how to manage some of these problems:

> In children's classes, parents must assume some of the responsibility for ensuring that their children attend class regularly and arrive prepared to participate. You must enforce these expectations. If children are frequently absent, they can delay the progress of the group or not assimilate within the larger group. Speaking with parents

outside of class to find ways to prevent absences and tardiness is imperative. Find ways to make your families partners in the learning process … there must be ground rules for participation during class. (Pike, 2017, p. 169)

I felt I could not dictate ground rules to my research participants and responded to the problem by encouraging them to attend. I was grateful when they did. Nevertheless, learning and teaching in the piano lab would improve if pupils were punctual, attended regularly, and came prepared.

Teaching and learning necessitate engaging with pupils, parents, teachers, and managers. Education is therefore associated with many vulnerable experiences (Loveless et al., 2016). "To be vulnerable is to be capable of being hurt" (Bullough, 2005, p. 23). Understanding teachers' vulnerabilities is a prerequisite for understanding their changing practice (Kelchtermans, 1996). Kelchtermans (2011) thought it essential to recognise that vulnerability relates to teachers' own "professional self-understanding, therefore it "is inherent in the teaching job and as such never completely avoidable" (p. 78). Teachers are consistently reminded "of their limitations as reflected in the eyes of a disappointed pupil or made public by a grumbling and dissatisfied parent" (Bullough, 2005, p. 23). When a student got upset, it caused me to experience feelings of uncertainty about whether pupils and parents blamed me for making students feel vulnerable. The social and emotional dimensions of vulnerabilities in group piano learning are salient and need to be acknowledged and identified (Loveless et al., 2016).

Richerme suggests singing or playing music expressively exposes "one's emotions." Students might "therefore experience vulnerability, at times in integration with interpersonal connectivity, more frequently during music classes than in other subjects" (Richerme, 2016, p. 34). As mentioned earlier, pupils came to weekly lessons from different parts of the city. They might have known their peers from music theory classes. However, they were not as familiar with them as their school peers with whom they interacted with every day. Group piano lab learning might therefore have seemed more of a nerve-racking ordeal, as it exposed sightreading and ear-playing difficulties to the teacher and peers.

4.7.1 Mother and daughter's initial fear

Some parents had concerns about the piano lab being a vulnerable environment because of their child's personality or prior music experiences. For example, Nadia was concerned her daughter Maria might not cope with performing in a group with other children because of her reserved and shy personality:

> NADIA: Maria, she is more reserved personality like I used to, and I was worried that it's going to be in public and that she's going to be shyer to perform. But I was wrong because she really likes it ... I think it's motivation for her because she has the other children here and it makes her to do her best, because she knows that she should perform and at the same time she is not stressed out either. So, I thought she was going to be afraid to come or that she wouldn't like it, but it's the opposite. (Parent Group C focus group interview, 8 December 2016, week 39)

Nadia shared how she used to be shy as a child when she took piano lessons. Maria resembled her by the way they both feared performing in public. Nadia understood her daughter because of their similar personalities. How we respond to being the centre of attention appears to directly relate "to the meaning that we assign to the situation," which is mainly the consequence of former experiences, and "genetic heritage," or "personality" (Uziel, 2007, p. 580). Learning piano in her country made Nadia think piano lab would be like a masterclass scenario where the teacher teaches individual students in front of spectators. Nadia and Maria were relieved when they discovered all group members played on their own piano and practised using headphones, sometimes learning at their own pace, other times together. Mother and daughter no longer feared the group context.

Nadia believed the group community motivated Maria to try her best. The piano lab was a safe setting for her to try things out. She could make mistakes like other children and overcome her perfectionist tendencies and nervousness. "Once a feeling of safety and trust exists between group members, self-regulation of involvement becomes the norm" (Baines et al., 2009, p. 112). As I had to spend more time with younger and struggling pupils, Maria had to self-regulate her own progress. She did not have a problem with me spending less time with her and enjoyed learning alongside the group. When called upon to demonstrate songs for the others, she actually enjoyed performing for us.

Gaining a realistic understanding of the purpose of the piano lab also enabled different learning for both mother and daughter. Maria *could* thrive in the piano lab

context. Apart from the context not being what Nadia had expected, it might also have helped to qualify Nadia's sense of Maria's personality, and Maria's sense of her own personality. Nadia's sense of her daughter's personality was that it was like her own. She recognised her childhood-self in her daughter as being reserved, shy, and apprehensive of public attention. Bradshaw (1988) claims "high-shy" people manage potential fears in social settings by bringing someone with them. This "Social Surrogate" enables "the high-shy persons to enter situations they would otherwise avoid" (Bradshaw, 1998, p. 666). Nadia helped Maria choose repertoire that Maria liked, as Nadia had also studied music. Sometimes she asked me for feedback because Maria did not discuss the details of her piano lessons with her. Nevertheless, Nadia could tell from the emailed homework if something was amiss. I would ask Maria to increase her practice time, when I thought she needed to work on a certain section of a new piece, which Maria always acted upon.

Maria's sense of her own personality was like that of her mother's. She recognised she was reserved, shy, and apprehensive of public attention. She enjoyed both working with others and quietly on her own. Because she wanted to be responsible for her own practice without her parents interfering, she did not feel compelled to confide in her mother about how her music lessons progressed. Uziel (2007) maintains the three key characteristics of individual differences affected by social facilitation entail "self-esteem, trait anxiety, and extraversion" (p. 585). Being socially present makes us self-aware of the most fundamental "effect of our social environment on behavior: the effect of the mere presence of others near us" (p. 593). Understanding how social facilitation affects us helps us to expect changes in behaviour (Uziel, 2007). The increased effort of learning with others improves performing (Triplett, 1898). Despite being reserved, anxious, and introverted, Maria's anxiety subsided as the year progressed. Her self-esteem grew, and she became more comfortable revealing herself and willing to demonstrate songs for others.

4.8 Learning Christmas music by ear

4.8.1 Unravelling an ostinato rhythm

I wanted the last lesson before the holidays to foster social pianists during the Christmas season. I thought it would be a welcome relief after learning the more

difficult Christmas song *Walking in the Air,* which I will discuss in Chapter 6. Pupils' homework had been to listen to the YouTube links of both the orchestral and ballet versions of the *Arabian Dance* from Tchaikovsky's Nutcracker suite. They could hear *Arabian Dance* playing in the background as they entered the room. I played the links again at the beginning of the lesson to re-familiarise them with this Christmas music and enable aural scaffolding. Conor and Liam sat on one side of the room. Jill and Grace sat across from them.

I played a simplified version of the ostinato bass line in A minor on the piano, a tone higher than the original version of G minor. As Liam began a term later than the other students, I demonstrated from his piano so he could observe me closeup. The other students could not see me from their pianos. I talked them through the process of clapping and chanting the 3/8 rhythm, after which they played it on the note "A." I stood in the centre of the room and probed their thinking about the bass ostinato rhythm:

> TEACHER: chant it as well as play it: *Ta ti-ti ta* together, again. Ok, stop now. Fold your arms. Does anybody know how many beats are in the bar? …
>
> LIAM: 3 (as his hand goes up)
>
> TEACHER: Do you agree?
>
> JILL: 4
>
> TEACHER: How much do you say (Conor)?
>
> CONOR: 3
>
> TEACHER: How much do you say (Grace)?
>
> GRACE: 4
>
> TEACHER: The girls say 4 & the boys say 3. Why do you say 3 Conor?
>
> CONOR: Because 1 beat *ti-ti* is 1 beat and then the other beats
>
> JILL: Oh yeah
>
> TEACHER: Very good. Just because it's 4 notes doesn't mean it's 4 beats.
>
> GRACE: I thought *ti-ti* was 2 beats
>
> TEACHER: It's not. They're 2 halves, half and a half is 1. Alright, does everybody understand?

JILL: coz I kept thinking *ta ti-ti ta, ta ti-ti ta* was 1 bar

TEACHER: *Ta ti-ti ta is* 1 bar, but within that bar are *3* beats, *not* 4

JILL: Oh yeah

TEACHER: 1 2&3, let's count it *that* way now and you'll see. 1 2&3. Everybody, count it and clap it … This rhythm is an ostinato rhythm. Does anybody know what ostinato means? Yes Jill.

JILL: Is it like it just keeps ongoing and keeps ongoing?

TEACHER: Exactly! (Group B, 15 December 2016, week 40)

I remembered Azzara saying young children need to experience music before naming it because "kids already know how the rhythm is supposed to go" (Azzara, 2014). In the past, I used to explain and tell students how to play a rhythm before they played it. This time, I hoped that by resisting explaining the ostinato rhythm metrically, they would discover the rhythm for themselves. Posing questions after they played it by ear piqued their curiosity and got them thinking about what playing an ostinato rhythm involved. Jill's definition seemed to suggest they had learned ostinato in their music theory lessons. Piano lab gives pupils opportunities to rehearse musical terminology and use it effectively. Enoch (1974, p. 109) advised piano teachers to "activate discovery learning. Let the pupils teach themselves as much as possible; *you* ask the questions." "The child "tells" the teacher what to teach" (Guilmartin, 2003, p. 32).

The boys seemed better rhythmical problem solvers than the girls. When Conor explained how he calculated the rhythm, Jill instantly understood how she had overvalued the quavers. Grace needed further clarification. After pupils counted the beats using Kodály rhythm syllables, I changed to metric counting. I introduced the term "ostinato" *after* they had experienced playing the ostinato rhythm. My questioning after their experience of playing the ostinato rhythm reinforced their learning. Precise questions allow other peers to comprehend "the nature of a student's confusion or uncertainty and to formulate appropriate and precise responses" (Webb, 2009, p. 4). Although I dominated the above conversation, Conor's response helped the girls to work out their misunderstanding.

> Explaining the material to others may promote learning by encouraging the explainers to rehearse information, reorganize and clarify material, recognize their own misconceptions, to fill in gaps in their own understanding, to strengthen

connections between new information and previously learned information, to internalize and acquire new strategies and knowledge, and to develop new perspectives and understanding. (Webb, 2009, p. 2)

Conor promoted the groups learning by getting to the crux of the matter when he said, "because 1 beat *ti-ti* is 1 beat and then the other beats." He recognised the girls' mistake of over-valuing the faster notes and clarified it in his own way. Jill's sharing of her problem-solving strategy enabled Grace to express her confusion (Webb, 2009). Grace forgot the value of a quaver. Perhaps she felt confused and ashamed for being the last person remaining who misunderstood. Learning differently amongst a group of peers compared with learning alone with me in her studio piano lesson revealed to both of us her lack of understanding of the rhythm. Piano lab peers sharing their solutions and confusions help the group's learning.

4.8.2 Deciphering melodic steps and skips

Isabella arrived seven minutes late. She missed learning the bass line of *Arabian Dance*. Bianca also arrived eight minutes late. She missed learning the bass and melodic lines. Later, in the lesson, I helped Bianca catch up and showed her what the group had learned. Meanwhile, the group had to revise *Arabian Dance* hands separately, and then hands together.

> TEACHER: The melody of *Arabian Dance* is going like this (singing in neutral tones): du du,du du, (*s m,s m*) so the first two slurs are the same. Now, are they stepping or skipping? Put your hand up …
>
> Jill raises her hand ...
>
> TEACHER: Yes Jill,
>
> JILL: Oh skipping?
>
> TEACHER: The first two, is she right?
>
> GRACE: Yeah?
>
> TEACHER: Is she right (pointing to Conor)?
>
> CONOR: No
>
> TEACHER: Is she right (pointing to Liam while singing *s m* in neutral tones), is that
>
> CONOR: Oh yeah, yeah

TEACHER: She's right, yes Conor, she is correct…

Liam leans over to whisper something to Conor

CONOR: [to Liam:] *You* didn't say anything!

TEACHER: Exactly, he didn't! So, it's (singing:) *s m,s m*. And then (singing:) du du du (*s f m*), is that stepping or skipping? Put your hand up. Jill.

JILL: Stepping?

TEACHER: Is she right (Conor)?

CONOR: Yes

TEACHER: Is she right (Liam)?

LIAM: Yeah

TEACHER: Is she right (Grace)?

GRACE: No

TEACHER: Is she right (Isabella)?

ISABELLA: Yes

TEACHER: (looking at Grace) She's *right!*

The group bursts out laughing

TEACHER: du du du *s f m* (singing)

GRACE: (plays:) *s f m* …

TEACHER: that's the right notes, you answered the wrong way, but you played it right. (Group B, 15 December 2016, week 40)

I used group dynamics "to maximise motivation and learning" (Pike, 2013, p. 104) by asking a closed yet competitive question for fun. When I questioned each pupil about the melody moving by step versus by skipping, Grace answered correctly. Initially Conor thought Jill was wrong, but when he heard me re-sing the notes, he realised his mistake. Liam leaned over toward Conor and jokingly mumbled something, perhaps teasing him about getting it wrong the first time. Conor immediately retorted that Liam had not answered the question, whereas Conor at least had. By singing *soh mi*, I confirmed that the melody skipped in the first two bars.

For the third bar, I reverted to singing the melody in neutral tones. The group had to decide whether the melody skipped or stepped without hearing it in sol-fa. As Jill

answered first, the others had to decide whether she was correct. Only Grace got it wrong. I delayed asking Isabella until the very end, so that no one could copy her answer.

My management of the activity depended on my knowledge of the pupils. As the previous vignette with Henry illustrates, I had to be prepared for pupils to surprise me through their actions and knowledge that I had not expected. When I confirmed Jill was correct, everyone laughed, including Grace. She may have winced inwardly, with being the odd one out who answered incorrectly while everyone else felt jovial. Instead, she smiled. While each pupil gave a "yes" response, she persisted in the background with answering "no" prior to giving her own response, despite having ample time to rethink her answer. Perhaps she focused on the chance that everyone else was wrong and she was right, rather than on the actual tonal intervals. She only recognised and accepted her mistake at the end, when I sang them in sol-fa and redeemed herself by *playing* the notes while I sang them. One of the interesting and complicated things about these vignettes is that they show pupils' individual and collective musical knowledge exists. They manifest it in different modes and forms: in language, gesture, reading music, singing, chanting, clapping, and playing rhythms.

Pupils arriving late was a nuisance. An aural pedagogy can accommodate practical issues like pupils arriving late and pupil absence – they cannot hear the music if they are not there, thus must catch up in another way. Once latecomers arrive, they can observe peers. Naturally, it would be easier to observe with pianos set up next to each other. Peers can demonstrate what latecomers missed while standing nearby. They can also catch up by listening to the soundtrack at home. Furthermore, emailed homework sent to all pupils helps absentee-pupils catch up at home.

4.9 Children appreciate focus group interviews

After the group learned to play *Arabian Dance* hands together, I adjusted the video recorder for the focus group interview. It captured most of the group sitting along three piano benches on one side of the room, while Isabella sat in a chair facing them. I asked them about their understanding of the project's purpose, the benefits of aural and reading skills, and how they found lessons. They discussed comparisons between first- and second-year songs, preferences for sol-fa or letter-names, the effectiveness of home videoing and emailed homework, and parental

involvement. They appreciated being asked to give feedback about what they thought needed improving. Discussing these topics interested and united them to the extent that a palpable sense of camaraderie became apparent by the end of the focus group interview. Mid-interview, amidst asking the group for feedback on whether the half-hour lessons had balanced content, Conor changed the subject:

CONOR: different answer from the question that you just said: I like doing these!

RESEARCHER: You like doing what?

CONOR: What we're doing right now (nodding)!

RESEARCHER: Oh, you like discussions? Good …

GROUP: laughs, especially Liam

GRACE: *I* like this!

GROUP: yeah, me too! (Echoed by all)

ISABELLA: hmm, we should have this more often

RESEARCHER: We will, then.

CONOR: Best idea so far!

RESEARCHER: What do you like about this discussion?

JILL: Coz like we all get-together at piano lab which we normally don't do

GRACE: I feel like we're important businesspeople …

LIAM: hmm like on CBN …

CONOR: Hmm, I feel like we're just *miles* away when we are at each other's pianos, so when we're sitting next to each other, it's better.

GROUP: giggles …

RESEARCHER: Oh, you mostly voted that you prefer the room to be circular, like this, rather than in rows … would you prefer to go back to rows?

JILL: I like this! [taps her hand on the piano to indicate she preferred it as is]

BIANCA: I like this!

GROUP: this, yeah this, this, this

RESEARCHER: Why? …

JILL & BIANCA: It's just we have more space

LIAM: I actually enjoy it…

ISABELLA: Before we'd have to go across the way, whereas now, we can just stay at our pianos. (Group B, 15 December 2016, week 40)

Quick-witted Conor changed the subject from discussing lesson-content to promoting focus group interviews. He picked up on the group's enjoyment of the interview and being closer together, which the others endorsed, first by Grace and the others followed suit. Jill appreciated getting together in the piano lab differently than normal. Liam felt it made him feel more important than he felt before. Bianca appreciated having more space in the room. Isabella elaborated on having the spatial benefit at their own piano whilst sitting next to friends. Her approval delighted Conor. Each group member responded with enthusiasm and spontaneity that promoted more dialogue. Considering each other's ideas enhanced their learning and enjoyment of each other's company. The focus group interview gave them a sense of ownership of the group, that helped them feel socially significant and valued. Grace's "I feel like we're important businesspeople" might be construed as conveying her sense of being in role and taken seriously, an experience that is a rarity for children.

The focus group interviews with children in the piano lab shed light on my research as an intervention. It benefited pupils in how they viewed themselves as people and how they related to one another. While the aural approach helped to improve pupils' ear-playing, the focus group interviews improved how the group related to each other and to me. It also enabled me to observe them from a different stance. I noted their personalities and the way they smiled, joked, listened to quieter pupils articulate their ideas, and enjoyed engaging with and belonging to the group. My positive piano lab teacher identity affected students' musical identity, which provided me with "a sense of fulfilment" (Chua & Welch, 2020, p. 8). Pupils articulating their ideas enabled me to take them more seriously and value their ideas. Webb (2009) maintains that when teachers do not consult with the group's views, teachers' opportunities for assistance are curtailed. Indeed, a core factor "in determining the effectiveness of teacher interventions is whether the teacher's help is tied to students' ideas" (p. 14).

Conor said he preferred the social closeness of the interview rather than being separated by pianos. I bounced Conor's comment about pupils being far away from one another into another question about whether the rows, or the revamped circular piano lab, improved the setting (see figures 2 and 5). Everyone preferred sitting

closer together via the circular setting. Isabella summed up the group's view that having the pianos next to each other made it easier for them to interact. The room remained the same until September 2020, when the pianos were put back to their original position in rows because of Covid-19.

From my autoethnographic perspective, my pedagogy changed when I engaged in dialogic relationships with pupils and their ideas, using their feedback and suggestions to shape my future practice. The pupils' focus group interviews tuned me in to their viewpoints and preferences. Actively seeking regular feedback became a way to listen to them as they shared their confusions and solutions. It offered me another alternative for supporting group learning (Webb, 2009). When I observed how groups enjoyed student dialogue, new pedagogical horizons opened up, because I took their individual and collective knowledge more seriously.

Reflecting on group dynamics helped me acknowledge my susceptibility to underlying feelings of guilt when I could not be the perfect teacher. Old pedagogical pathways sometimes crept in. For example, I used to cram a great deal into lessons that stemmed from my own disciplined music studies. The effect of how the mere presence of others might upset beginners helped me empathise more sympathetically with their fears. I increased my praise of pupils and encouraged them to discover their own ways of learning and solving problems. It went against my former ways of only praising pupils when they thoroughly deserved it. Nevertheless, I learned to accept differing commitment levels and juggle wide mixed ability groups and children of different personalities.

CHAPTER 5: PARENTAL INVOLVEMENT

Vignette 2

> IRENE: She's getting shy around … even with singing, she's not singing at home anymore, whereas before she used to sing away. Now it's like I have to … say: "well Jill, you know … if you're going to be shy in front of me, you're going to be shy in front of everyone" …
>
> BETH: how do you get over that?
>
> IRENE: It's the confidence
>
> BETH: It's the confidence to build that up because I mean they can play piano, but the shyness then takes over … which is awful.
>
> IRENE: I suppose getting them to play more in front of people, get them to perform if their grandparents are up …
>
> KEVIN: [Irene's husband and Jill's father] Keep telling them how good they are … just remember how good you are, that's all, and enjoy it. That's the most important thing … The more you learn, the more mistakes you make.
>
> JACK: [Conor's father] Exactly! (Group B parents' focus group interview, 12 May 2016, week 26)

5.1 Connecting with parents

Mothers and fathers discussed their children's music learning at a parent focus group interview, while I faded into the background to let them talk about what was important to them. Irene noticed her daughter Jill gradually becoming shyer and singing less at home. In the early days of the research, Jill used to sing the way I taught her to help herself play by ear. As the year progressed, she might have noticed other pupils not singing, succumbed to peer pressure, and refrained from singing at home. Perhaps she sang quietly or in secret and learned how to play by ear just by playing. Jill was not shy in the piano lab. In fact, she was the group's questioner, whose ear-playing skills steadily improved.

Beth wanted to know parents' views about overcoming performance anxiety because her daughter Bianca dreaded performing in public. Irene suggested getting more performance experience. Her husband Kevin recommended praising their children, reminding them to enjoy the learning process, and having a positive attitude toward mistakes as a necessary component of learning. This parental discourse reminded

me of my hope that my aural focus would help pupils manage their shyness and nerves when performing music.

5.2 The emergence of parental involvement

A key change in my piano lab practice was working with beginners younger and less experienced than those in my previous practice, working with older children. It was my first-time teaching groups of beginners aged 6–8 years. In former times, the youngest I taught in the piano lab were 9–years old Grade 1 students, in their third year of learning piano at the music school. It was also the first time that parents participated in piano lab lessons. I had not received formal instrumental teacher training in how to collaborate effectively with parents (Ang et al., 2019; Finn, 2019; Shartrand et al., 1997). As a PGCE teacher trainee in the UK, I had encountered some staff training for parent-teacher meetings. Initially, I used to allow parents to decide whether they wished to attend piano lab lessons with their child or not, except for the first lesson when I briefed them about the research. Several parents requested to attend lessons a few weeks later. They may have wanted to help settle their child, because I invited them when they brought their child to the door, or out of curiosity. It became apparent at the first end-of-year focus group interviews with parents that some of them thought more parental involvement in lessons might be necessary.

Researchers have found that parents taking part in instrumental lessons are very important and can affect pupils' future musical achievements (Creech & Hallam, 2003; Fisher, 2010). The culture of instrumental music tuition and tacit rules and expectations about the limits of parental involvement, however, are negotiated on a case-by-case basis, according to the individual teacher's approach. For example, I had been indecisive about parental involvement, as my music and pedagogical studies did not include training or research on the topic. I used to blame a lack of talent or practice for why certain students did not progress. "Low perceived efficacy" may predispose teachers to "invoke low student ability as an explanation for why their students cannot be taught" (Bandura, 1997, p. 242). Teacher efficacy involves teachers feeling confident in their effectiveness as teachers, and being aware of the professional knowledge in teacher training at their disposal when needed (Hoover-Dempsey et al., 1987). According to Hoover-Dempsey et al. (1992), teachers view

parents' remarks and participation in music lessons in different ways, depending on the degree of teacher efficacy. For example, "high-efficacy teachers may hear legitimate questions in a parent comment, whereas low-efficacy teachers hear criticism and threat" (p. 293).

I oscillated between the need for parents to attend lessons or not. Sometimes I was passive about allowing parents to decide to attend lessons, hoping they would *not* attend when I felt trepidation about their criticisms. Other times I felt grateful they desired to support their child's piano learning by attending lessons. My research project helped me gravitate toward the latter. Gradually I became more active and assertive talking with parents about the reasons children progress more when parents attend lessons in the early stages of learning. My teacher efficacy influenced parents' level of participation in their children's learning (Bandura, 1994). As my teacher efficacy increased, parental participation increased.

The more teachers develop in efficacy, teacher-parent ambivalent roles become more defined and resolved (Hoover-Dempsey et al., 1987; Bandura, 1997). The more confidently teachers view their own teaching efficacy, the more parents pursue connection with them, help them in lessons, and support both the homework as well as the teacher's endeavours. Strengthened teacher and parent efficacy permits them to be more self-assured and less guarded when interacting with one another. Like classroom volunteering, parental involvement may provide parents with new and helpful knowledge regarding their own effectiveness with supporting their child. It could increase parent efficacy. For parents to remain involved, they need to see that their support is making a difference. Promoting teacher and parent efficacy through parental involvement to improve home-school links may serve a school's best interests. Parents can see the fruits of their positive labour in their child's progress.

Some parents attend lessons because teachers invite them, or parents request to attend. Other teachers dissuade parents from getting involved. They may fear parents' interference in lessons. Parents' presence might hinder the pupil-teacher autonomous relationship of pupils taking responsibility for their own practice at home (Macmillan, 2004). Cathcart's study (2013) revealed that three-quarters of piano teachers found dealing with parental expectations the most dissatisfying feature of piano teaching. A quarter of teachers found a lack of parental commitment as least

rewarding. Macmillan's study (2004) noted "experienced teachers who have received initial pedagogical training and then followed specialist music courses" were more likely to acknowledge parental involvement as beneficial for pupils' progress (p. 310). Parents could enjoy music-making with their child. Most teachers, however, were unaware of parents' potential to help. Parents can show an interest in their child's music learning and act as their number one fan (Cathcart, 2019; Macmillan, 2004; McPherson, 2009), yet accept that they are not the teacher.

The CSM supports Suzuki Music and offers Suzuki Violin and Cello lessons. Suzuki teachers encourage parents to attend with their child, as discussed in Section 2.8. Aiden and his mother, Alice, had experienced CSM Suzuki Violin. At the beginning of the project, Alice attended lessons every week, took notes, and then implemented the notes into the daily practice sessions at home. When she attended my ear-playing project, she gained insight into the benefits of observing a few lessons. She noticed a gap concerning parental involvement in comparison with the Suzuki approach. I might have appeared to her as uninformed about parents participating and unconcerned about her expectations.

Teachers might underestimate parents' potential input for assisting their child both within and outside of lessons. It surprised me that some parents could assist their child in novel ways. Indeed, I underestimated their ability to solve my pedagogical problems. For example, I discovered some parents could figure out the best time for their child to read songs, having learned them by ear. Other parents knew how to use solfège for practising ear-playing. Younger parents taught me how to take advantage of smartphones and technology, which became an integral part of music lessons, and benefits the pupil-parent-teacher trio relationship.

Macmillan (2004) suggests instrumental teachers can build parents' belief in their ability to support their child, despite their lack of musical background, to support their child effectively, "in a positive, non-critical way" (p. 308). Parents can contribute to their child's music learning by attending lessons and observing piano practice at home. Learning to play their child's music might connect with their prior experience of music and boost confidence in their own musical ability. For example, when a teacher gives the next tiered task, parents can act as a scaffold. They can overcome their self-doubts about their lack of musical knowledge. It might result in shared

parent-child music learning (Pitt & Hargreaves, 2017). Davidson et al. (1996, p. 44) note parents' "commitment to assist their child is more important than having a high level of musical competence" (McPherson & Davidson, 2002; McPherson & Davidson, 2006).

Committed parents expand the teacher's understanding of how best the parents can support their child. My research offered parents opportunities to contribute their input and experiences. I had not envisaged that parents would become involved when I started the project. It developed through a process of reflecting and coming to terms with the challenges of teaching and negotiating with participants. My prior unwillingness to engage with parents stemmed from past experiences and fears which clouded my judgement. I sometimes believed parents might make it difficult for me to teach. My role as the music expert was to elucidate musical matters to parents. I underestimated their potential to enlighten me about how music learning could be improved. Reflecting on data, listening to parents, negotiating, and discussing the difficulties empowered me to liaise more with them.

As the project got underway, I noticed some pupils struggled and required more help learning to play by ear. I thought these pupils might be better supported by parents assisting them in the piano lab. Parents knew their own children better than I did. They might relay their children's difficulties and ask questions on their behalf. It might not guarantee that parents could identify the cause or nature of their child's struggle. Parents can identify misgivings or insensitiveness when untoward communication might crop up, which children would be incapable of. In relation to a shy child, the parent could voice their child's preferences or dislikes. Parents can help make progress in lessons and at home. In the process, parents could learn music for the benefit of their child and for themselves.

I explored the extent to which the whole of my practice with these early stage and very young learners involved pedagogic relationships with them and their parents. It felt scary initially because it was not something I had envisaged. I had emceed for student concerts with audiences of parents and taught in secondary schools with teaching assistants in the classroom. This was my first time managing a research project and facilitating focus group interviews. It transpired that I would need to depend a lot on parents for feedback because some children were very quiet and

shy. Opening space for parents in this way in the piano lab felt difficult and uncomfortable.

The plurality of purposes includes my support of parents, thus enactments of my accountability to them. I had discussed the purpose of the project with each parent. They had read the research project information leaflet and attended the introductory meeting and focus group interviews. While educating pupils and parents about the need for aural skills, I also might appear to contradict the keyboard faculty's emphasis on reading skills and undervaluing of aural skills. Parents and pupils received conflicting messages from my aural focused project and the music school's information booklet. The music school's Piano Syllabus (2010) contains the piano curriculum, which states:

> The objective of the piano syllabus is to cater for a progressive development ensuring that the student, through a series of graded examinations, acquires a broad, comprehensive knowledge of playing the instrument.

"Broad, comprehensive knowledge" of piano playing, when defined in relation to graded examinations, might be construed as promoting the classical piano repertoire, sightreading and technique, while tending to exclude improvising and ear-playing. The criteria for assessing the series of graded examinations fosters musical literacy skills. Taaffe (2014) claims parents are preconditioned to be exam-conscious and accept the graded examination system without fully understanding its limitations. They may "assume that the prevailing structures are the most appropriate, relying on the professionals for direction" (p. 168). Teachers' responsibility to parents and pupils is to promote "broad, comprehensive knowledge." Therefore, teaching music literacy and the aural skills that underpin the wider aspects of pupils' musicianship should be part of an age-appropriate curriculum. When pupils, parents and teachers undervalue aural skills, it undermines pupils' potential for "broad, comprehensive knowledge of piano playing." Ear-playing and improvising can make piano playing more meaningful and motivating. Playing by ear could become part of the Piano Syllabus. It could help pupils to persevere rather than give up (Cathcart, 2013).

5.2.1 First parent to attend piano lab with concerns

> Conor was apprehensive about attending class today, so his mother Lisa sat in on the lesson and participated. She said that she was impressed that by just changing one note, E to E flat, we had a new song. At the end, she thanked me and said she found the lesson interesting (Reflective Teacher Diary, Group B, 8 October 2015, week 3).

Lisa usually brought Conor to lessons. Sometimes I had a few moments beforehand to chat with her briefly. By the third lesson, she revealed he was apprehensive about attending the lesson and wondered if she could sit in. I invited her to take a seat and Conor showed his willingness to continue. I thought it best to minimise his anxiety by carrying on with the lesson. Conor's family might have discussed the potential and benefit of Lisa observing one lesson, which he might have wished to facilitate.

The significance of what these data represent is the difficulties for the pupil-parent-teacher participants in negotiating these pedagogic relationships. Each of them attempted to decipher the rules and understand the obstacles for the other participants, in different ways and from different starting points. Conor might have misunderstood what to expect and felt apprehensive about homework. I was apprehensive about potential parental criticism. Lisa might have wanted to observe a lesson to check my pedagogical approach and determine how best she could support Conor. She was the first parent to observe my piano lab lesson. I felt more comfortable with parents observing individual lessons (because this was more familiar territory for me) and with parents observing piano lab lessons. As teaching aural skills to groups of such young children was new to me, I did not feel confident. I was unsure about teaching such young children in groups. I thought Lisa might judge my approach critically.

My apprehension with her observing me teach dissipated when she showed a genuine interest in music learning. I felt her positive energy as she smiled encouragingly. It became apparent that she was for, not against me. She relished the idea of transforming a song from a major key into a minor key simply by changing one note. It motivated her to discover other ways of supporting her son more efficiently. Even though she claimed she knew little about music, she recognised his natural ability to play by ear. At the time, I did not know of her concerns about his ill health and physical limitations.

The obstacles for the other parents might have entailed being uncertain about my expectations and whether their child could attain a satisfactory level of progress. The children were developing an understanding of the steps required for learning to play by ear and the commitment needed via home practice. With only half-hour lessons once a week, they would have found it difficult to remember what they learned in the lesson. Home practice responsibilities might have seemed an enormous commitment to parents. I did not want to over-burden them. Yet, it seemed common sense to expect their support for the home practice.

Lisa said she found the lesson interesting. Her genuine interest and enthusiasm were uplifting. Unknown to me at the time, she had been a doctoral student. It explained her interest in my research. She quickly got a sense of what we were doing and how she could support Conor at home. She understood the project's aural based approach from talking with me, the information leaflet, and the focus group interview meetings. Also, she might have spoken with Conor's piano teacher, who would have discussed the project's aural benefits with her. Indeed, the emphasis on aural and musical creativity motivated her to take the opportunity for Conor to participate.

Conor had enjoyed playing by ear prior to beginning piano lessons, and she wanted this to continue. He and his parents had not experienced the traditional notation-based approach, as Conor was an only child. Perhaps Lisa attended the lesson to verify my proposed ear-playing approach. She believed she did not need to attend lessons after that. Observing one lesson was sufficient for her to understand and trust what I was doing, and encourage Conor to persevere. Henry's (1996) emphasis on the value of a responsive relationship between parent, teacher, and child, as noted in Section 2.8, might be seen to be exemplified in these interactions. Lisa desired to understand the aural-vocal approach I was using. She showed her interest in Conor's learning by being impressed with the quick and easy way the group learned two songs. Pupils created a new song simply by changing a single note from major to minor. She revealed her interest in the musical structure of songs in front of the group, which encouraged Conor to persevere and elicited mutual respect and trust (Creech, 2006; Ang et al., 2019).

Although Conor enjoyed the course, it later became apparent that he wanted to do less homework. He relied heavily on his parents' help more than other pupils. Despite complaining about the difficult homework, he found tasks easy in lessons. It made me question the discrepancy between his account and my observations. In contrast, the girls in the group seemed content with the homework. I was unsure of what homework-pitch to aim for. Lisa's key question at my first parents' meeting related to whether Conor would get too much homework. In emailed conversations she explained:

> He has five music classes a week … so it's a bit mad trying to get the work done on top of schoolwork etc! (Email, 1 December 2015)

> My son says the homework is a little bit hard as it takes a long time … I think fewer pieces of homework would be good as there was a lot to do every week (Written feedback, May 2016).

> I'm just conscious Conor got very sick last year so I don't want to ask too much of him (Email, 3 September 2016).

Although he attended every lesson during the first cycle, he missed four lessons during the second cycle because of illness. His school homework, violin, piano, and music theory studies would have involved a lot of study time for a young boy who had health issues. Lisa's concern was credible. His limited capacity for piano lab homework was because of ill health, and she feared he could not cope.

5.3 Sources of misunderstandings

5.3.1 Transposition challenges

Some unforeseen problems arose when I used new pedagogical tools for teaching ear-playing in the first year of the project. Transposition was a necessary component of ear-playing tasks that required listening and singing the songs with the soundtracks in one key and playing them in another easier key. Although transposing helps beginners, some pupils and their parents were confused at home. Alice emailed me about her son's difficulty with home practice:

> ALICE: I can't take the credit. Aiden's big sister helped. I don't know if that's allowed but he was close to tears … Aiden wanted to do track 20 [*Pierrot*] but it sounded out of tune even though he was getting the correct melody, it was not the right key. Yvonne [older sister] who's a perfectionist showed him what she thought it

Confronted with the task I had set, Alice, Aiden, and Yvonne's knowledge produced confusion. Each came at the question of Aiden's practice with prior experiences and understandings of what Aiden's practice should entail. Their differing perspectives were the product of their prior experiences of music and music education, and their firm sense of the right and wrong way to learn ear-playing. Aiden had already gained knowledge of transposing *Pierrot* when faced with his sister's rendition of the original soundtrack. He had difficulties communicating with his family about the reason he was not supposed to use any black keys. However, he recognised the song should be played differently to the soundtrack. It should have felt simpler playing it in an easier key like C major rather than the awkward key of E♭ major.

His sister Yvonne went to the trouble of figuring out how to imitate the soundtrack in E♭ major. Thus, she helped Aiden learn it in the same key as the soundtrack. Being older and more musically experienced, she chose the easiest way for *her* to play and teach him, rather than having to transpose the song, despite Aiden's protestations. She assumed he needed to play the song identical to the soundtrack. His attempts at transposing it into a manageable key might have baffled her. She seemed unaware that E♭ major was difficult for beginners, or she might not have considered the possibility of him transposing the song to C major, and assumed transposition as intrinsically a more advanced skill. For the song to sound correct, she might have approached it from the traditional notation-based approach. She also would have used her aural faculty to imitate the recording but might not have known how to transpose music.

Perhaps Aiden knew the initial steps of transposing more than his older sister. He followed her advice as he recognised it sounded better, despite the black keys making it feel more difficult to play. Alice observed what was going on. She recognised Aiden's difficulties with trying to sound like the soundtrack whilst respecting his awareness of another way of playing it. Mother, son, and sister had their unique knowledge about the correct way versus the wrong way to play *Pierrot* by ear.

Conor's father also conveyed his confusion about using the soundtracks:

JACK: The CD coming home was useful and being able to play the songs, which actually took me awhile coz, I don't do music, read it, or play music. I enjoy it, but it took me a while to understand that some of the vocal pieces on the CD were actually linked back to some of the songs we were playing. I didn't make the initial connection.

RESEARCHER: *He* [Conor] did, did he?

JACK: He did, yeah. He didn't explain it to me, so it took me a while to actually figure out that when we were playing those notes they were eventually going to turn up and the chords would turn up in this. (Group B parent focus group interview, 12 May 2016, week 26)

Jack's confusion astounded me. I found it difficult to comprehend why it took him so long to recognise the songs on the soundtracks as those Conor learned in piano lab. I assumed giving families the CD would have sufficed for them to realise that the soundtracks coincided with the songs they learned in piano lab. Father and son appeared to have worked together on the emailed homework, which specified the soundtracks. I thought it would have been obvious. At first, I thought it was because of Jack's lack of music learning. However, Emily also revealed that she failed to comprehend how to use the soundtracks, and *she* was a musician. It is possible that for Jack and other parents, a song in a different key, sounds like a different song. Parents not playing the songs and half-listening to them as background music in the car might also prevent them from making the connection. Transposing songs to easier keys led to considerable confusion. I assumed parents would understand the emailed homework and the link between the soundtracks and the songs. I had not clarified enough how to use the soundtracks during the first month. By the end of the year, some parents speculated their involvement within lessons should be a precondition for piano lab learning.

Henry's mother Emily also mentioned her confusion with using the soundtracks:

EMILY: Although you send us the tapes in, *doh* 1 2 3, I didn't know what to do with it – listen to it, or play it or, you know what I mean. I don't think it's actually clear from the tape. This is for me. (Group A parent focus group interview, 12 May 2016, week 26)

By the end of the first year, Emily asked why pupils learnt to play the songs in different keys to the soundtracks (15 September 2016, week 28). Many challenges might have been avoided if she had asked that question earlier. I explained I used the *Jump Right In* recorder version because of its separated soundtracks of melody

and bass lines, which facilitate learning to play by ear. I also clarified that the approach was developed for band instruments, not piano. This necessitated transposing the songs from the original key of E♭ major with its mixture of black and white keys to the easier all-white key of C major.

Children in the United States purchase the *Jump Right In* student book with its allocated homework assignments, as discussed in Section 3.2. The approach was developed for instruments other than the piano and geared for music in primary school classes, bands, orchestra in schools, possibly without supportive individual tuition. My research participants had both individual and piano lab tuition. They might have thus learned the songs by reading more easily than their US counterparts, which would have defeated the purpose of my teaching (and my research). If parents had purchased the books and CDs themselves in 2016–2018, the contents page with the list of soundtracks would have helped them connect with what their children were practising. This would have been expensive, troublesome, and time-consuming for them. Today, they can download the online audio files after purchasing a *Jump Right In* tutor book.

Most parents expect to purchase a notebook for the teacher to write pupils' homework. They also buy a tutor book for the initial one-to-one piano lessons, which piano teachers most of the time depend heavily on (Cathcart, 2013; Haddon, 2009). Typical homework for individual piano lessons preparing for exams includes technique, a study piece, sightreading, and three pieces of repertoire. Parents might therefore have expected the same for piano lab homework. Piano practice is familiar to many parents and students in individual studio lessons. Also common is the short-hand manner that instrumental teachers take notes in pupils' notebooks for their homework. There are sharp contrasts with my position in the piano lab as I set unfamiliar aural homework, which was not so readily summarised in written form. An information leaflet could have clarified the connection between the keys of the songs on the soundtracks, versus the easier keys pupils learned to play them in.

The quality of the *Jump Right In* soundtracks, however, is motivational for young people. And, difficulties relating to transposition are part of learning to play by ear, although admittedly, transposing is more difficult for beginners than for older Grade 2 students. In retrospect, perhaps there was a more effective resource with high-

quality soundtracks of songs (including Irish songs), designed for pianists, which I have not yet discovered.

5.3.2 Negotiating roles in first parent focus group interview

In the first focus group interview, I asked parents about their child's challenges and enjoyment with learning to play by ear. I expected some disparities between their perspectives and my own. Emily said she was confused about the purpose of the project, which surprised me:

> EMILY: I would say Gemma that I've certainly been a bit at sea as regards I don't think like, Henry *did* enjoy doing the listening and I would say he has learnt a lot from it himself, but I wasn't sure what I was actually supposed to be doing, from actually the start I wasn't actually sure what the goals … of the actual project were from the start of it really. Do you know what I mean! So and that partially coz I was not involved in it, but on the other hand he wasn't able to come back and say this is, you know coz he's young …

> ALICE: Certainly, I found that he's [Aiden] quite willing to kind of go in under the radar and come away then … Whereas, a simple hand up in class saying, 'I don't understand this', or 'could you explain that to me again', or 'I'm playing the wrong note here' … I don't know whether you are getting that from him?

> RESEARCHER: No

> ALICE: Yeah

> EMILY: Yeah, that's the thing so they're not good at actually voicing it coz … they're too small to know that they should do that

> ALICE: so, we started off really well, but we've seemed to be floundering a bit as the classes have progressed and I suppose the catch up is difficult, coz he's not feeding back to me what he should be doing. (Parent Group A focus group interview, 12 May 2016, week 26)

Managing relationships with parents was a centrally important part of my role that involved negotiating parents' and my own expectations. I had discussed the project's goal of learning to play by ear with Emily over the phone and at the introductory meeting for parents. She had studied the piano when she was a child, therefore, I expected that she would have understood the goal more than other parents. Helping Henry to play by ear, however, differed from her traditional musical upbringing. The problem from her perspective was that I seemed oblivious that parental involvement was essential to succeed for pupils like her son. Granted, I had not made it clear

what parents' responsibility would be at the introductory project meeting because I was unsure.

As noted in Section 2.8, Rutherford and Edgar (1979) acknowledge that teacher-parent disputes can emerge, owing to misunderstanding values, goals, and pedagogical methods. They recommend mutual understanding of goals and the methods for attaining their goals, as well as clarifying teacher and parent roles. Creech (2006) identifies the ambivalence of the teacher-parent relationship. Expectations may be unclear "during the crucial early years of learning" when teachers rely mainly "on the parents to sustain pupil commitment and enthusiasm for the subject" (p. 116). I assumed Emily and Alice could supervise their sons' aural practice without major difficulties at home. They valued their sons' autonomy and expected homework to be clear and easy. I tried to clarify the emailed homework when they noticed their sons' confusion about my expectations and communicated this to me.

Alice and Emily recognised their sons' need for more parental involvement in lessons and assumed that I was unaware of this. We did not realise that we agreed until we discussed it in the focus group interview. Afterwards, for the second year, I became more assertive in inviting parents of new beginners to attend with their children. I had not foreseen parents' role taking part in lessons as a key part of playing by ear, nor my own pedagogic role in teaching both children *and* adults.

The exchange above provides an insight into the difficulties with communicating expectations to pupils and parents. Perhaps Alice and Emily had discussed amongst themselves their commonalities that they spoke about in this meeting. Both mothers reported their sons' lack of feedback on what I expected them to do in the piano lab, which I needed to address. "Reticence and deference" inhibit children in how they should behave toward the teacher (Creech, 2006). This difficulty is exacerbated when parents already have expectations about their role, the content and method of instruction, or what progress might look like. They might have a set of anxieties about their child falling behind.

For instance, Alice blamed her son's lack of progress on the lack of communication between Aiden and me, Aiden and her, and indirectly between her and me. Neither did missing three lessons in the second cycle help. Alice did not come to piano lab

anymore, even after Aiden returned, so we communicated less. I spent more time with pupils who struggled, such as Henry and Eleanor. Aiden nodded he understood when I checked in with him. He seemed to get mixed up when he tried to relate what he had learned in piano lab to his mother. I found it difficult to ensure he understood what to do when he went home within the confines of half-hour weekly lessons. Emailed homework helped me communicate with families, despite its limitations. It was far better than writing notes in pupils' notebooks or getting *them* to write, which would have taken excessive amounts of time.

5.3.3 Aural homework difficulties

The focus group interview interactions enlighten us about the unique challenges of assigning ear-playing homework. They include pupils being reluctant to sing, unfamiliarity with using sol-fa, the tendency to forget songs without notational backup, and getting confused when transposing to easier keys. Sightreading homework simply involves specifying reading exercises in pupils' sightreading tutor books. Ear-playing homework requires specifying the soundtracks of the songs to be learned by listening, singing, imitating, and transposing.

A few parents were experienced music readers, but failed to grasp the intention of the aural tasks:

> RESEARCHER: Have pupils found the lessons too easy or too difficult?
>
> EMILY: I thought it was challenging enough coz Henry did get upset actually about hmm but not saying it, but not actually knowing it and then I didn't really know what he was meant to be doing. (Group A parent focus group interview, 12 May 2016, week 26)

Emily's comment was evidence of her concern. She did not understand what I expected of her, or how she might support her son. She was an experienced pianist, accustomed to reading notation and performing, yet unacquainted with an early childhood aural approach or the link between singing and playing by ear. These had not been part of her musical training. However, without singing the songs at home, ear-playing would be problematic. Nevertheless, she had encouraged Henry to participate for a year.

Learning songs by singing them in one key and then transposing them to easier keys confused some pupils and parents. These issues were easier for parents to follow when they attended lessons. Learning to play by ear involved learning songs and practising them at home soon afterwards, or inevitably they would forget. I did not rely on a tutor book with photos to demonstrate the starting notes. During the second year, I used sol-fa and letter-names more often to help pupils label tones and remember the songs.

Emily did not know how to apply what she knew from her inherited notational-based viewpoint to Henry's ear-playing. I was unaware of her difficulty, as she had not informed me. I had wondered why I only occasionally heard from her and believed if she experienced problems, she would have responded to my weekly emailed homework. She did not attend lessons with him, and I found it difficult to communicate to her about Henry's need for her involvement, because I knew she was very busy. I did not feel at liberty to ask anymore of her. I felt helpless to change the situation and presumed I must be content with it.

The difficulty of achieving effective communication with parents is precisely because of their readymade set of expectations about their role and the progress likely to happen. Their expectations shape what their child does and what they think I should do with them. They unfolded for Emily from the traditional notation-based approach that she received as a child, which excluded singing and learning to play by ear. She hoped Henry could learn piano lab music independently of her. Rather than encouraging him to sing, she accepted his reluctance to sing.

5.3.4 Teaching through singing

An age-old problem for many children is singing in tune, as discussed in Chapter 2. Singing is helpful for instrumental learners, although it depends on the situated values and perspectives of teachers. Yorke Trotter and Chapple (1933) observed children finding it difficult to control their voice. They suggest giving "breathing and other exercises until the child can reproduce sounds played or sung to him" (p. 3). When children start school, their vocal ranges are restricted, hence, wide differences emerge (Leighton & Lamont, 2006). Their singing ability stabilises as they get older (Lamont, 2008; Welch, 2006).

Henry found singing in tune difficult. Emily mentioned he did not see the point of singing in tune. She did not seem to mind, either. Realising this was useful to me. Singing out of tune is problematic for learning to play by ear, which involves a closer relationship with singing than is the case with learning to read music. I began reasoning with him and demonstrating how his singing could help him locate the notes of the songs on the piano. I coaxed him to adjust his tuning at different junctures of the phrases when signalling his error, which usually meant pointing up to sharpen the notes (Welch, 1985). He increased his efforts and improved. However, I singled him out from his peers, all of whom could sing in tune. It may have caused him to feel vulnerable. Potentially significant discussions ensued with his mother, in which he relayed his feelings about the experience and how he made sense of it. Perhaps she was apprehensive that I focused on his singing in front of his peers, which made him feel insecure. After a year of helping him sing, she told me he was shy about singing and she did not seem appreciative of my help with it. She may have shared his lack of understanding about singing in tune.

What informs the difficulty of singing in tune is a parental assumption. It relates primarily to a belief that it is possible to learn to play by ear without the focus on singing in tune. Yet singing is a distinctive act involved in the process of helping the student to play by ear. Listening to pupils' singing assists the teacher to help them play by ear. The teacher listens to pupils singing a melody to determine if they know it with their inner ear. Without singing, the teacher cannot establish if they know it or not. If pupils sing it out of tune, the teacher can ascertain that more than likely they will play a melody incorrectly. Parents might understand learning to play by ear, but not necessarily the method by which a teacher supports pupils to improve this skill.

Many parents might find singing embarrassing (Pitt & Hargreaves, 2017). It is a barrier to learning ear-playing skills. McPherson, Davidson and Faulkner's study (2012) found that less than half of parents regularly sing with their toddler children. I wondered if a lack of singing at home was the reason some struggled with ear-playing. As in piano lab, singing is an important part of learning music in their applied musicianship classes. Parents involved in the piano lab observed pupils' singing melodies and bass lines as an integral part of ear-playing skills. For this reason, they encouraged their child to sing at home. Parents would not have had this opportunity in their child's applied musicianship classes.

5.4 Teacher-parent divergent interpretations of playing by ear

Everything that makes effective communication difficult is enmeshed in differing and conflicting expectations, and assumptions, all of which have beliefs, attitudes, values, histories, and cultures. Different channels, forms, and acts of communicating are unequally effective for everyone. Communication barriers became an issue for me with Henry and Emily. She was happy for Henry to participate in the ear-playing research project. Although she played piano, the emailed homework and the soundtracks confused her. Having to transpose songs to easier keys might have seemed too troublesome to her. It would have meant more of an effort for Henry and she might not have thought it worth the effort. Singing, in all likelihood, was not part of her piano studies. It was part of *my* first steps for learning to play by ear. She might not have understood the value of beginner pianists learning bass lines early on. Instead, she was content with his reluctance to learn bass lines. Perhaps she encouraged him to learn the melodies of songs, but not the bass lines. As a result, he struggled to play songs hands together. In hindsight, it would have been beneficial to interview Emily about these issues.

Creech (2006) highlights issues that lead to a downward spiral of mutual distrust, a lack of communication and absence of shared purpose" in the parent-teacher-pupil relationship. These include parents putting "a low value on the subject matter," an inability to assist their child at home, anticipating little hope of success, and feeling intimidated by the teacher (pp. 371-372). Most parents involved in my research lacked a musical upbringing. Some required more guidance than others to become confident with assisting their child. I was unaware of behind-the-scenes practice-battles between parents and pupils at home. Because of their lack of musical training, I might have overlooked how they contributed to their child's musical learning (Crozier, 1999).

For Emily, it was not a question of a lack of confidence or knowledge of music or music pedagogy. It was the gap between her history and expectations, and what I was trying to do in the piano lab. She might have envisioned ear-playing akin to her own experiences of listening to improvisers perform, not understanding my approach. Having not attended any lessons during the first year, she did not observe other beginners benefiting from the approach.

Occasionally, I invited parents into lessons in the first year of the project and assumed they understood my preference for them to be involved. My strategies to involve them were based on my own perspectives rather than on parents and might actually have hindered them (Creech & Hallam, 2003; Crozier, 1999). Parents might have resisted giving the impression they were pushy or interfering, which might have deterred them from communicating about it or getting involved (Crozier, 1999). Because of parents' feedback, I recognised I should not expect them to initiate getting involved. I had to invite them assertively to attend lessons. As mentioned earlier, I became a great deal more assertive with urging parents to participate the following year. I conversed with them by email, face to face, and whenever they dropped off their child at the piano lab door. Parents asked questions on behalf of their child. They clarified misunderstandings, insecurities, and their child's preferences. Sometimes, they offered their own views and solutions.

5.4.1 Request for parental involvement

I had asked Henry to invite his mother to attend piano lab. Gradually it became apparent, during the focus group interview, that she did not know about the invitation. Unfortunately, I thought she received the message when his older brother came in her stead.

> EMILY: I thought it was about learning to actually listen to the music and be able to play it. So, I didn't know that it was important as regards the hands positioning … so that, there's a … different endpoint than actually just listening to the music and being able to play a tune on, on, do you know what I mean! I thought that was actually the purpose of it … he did practise so like it's not about him not being involved. What I'm saying is he did practise, I did supervise, but … I'm just saying from the start I wasn't clear. So obviously … what I thought the aim was, is slightly different ... I know it's difficult to hear back, isn't it! But the thing is that I think it should be that he'd be able to actually have some sort of feedback …
>
> RESEARCHER: I thought you are just too busy, and you couldn't, I kept asking Henry 'does your mother want to come in, or your brother?'
>
> EMILY: Alright I never heard that, no, never heard that, but that's the point, he didn't even say that … I mean he did fine with it, I think he actually achieved a lot. (Group A parent focus group interview, 12 May 2016, week 26)

Emily presumed I had avoided inviting her to observe lessons. She voiced her concern about the necessity for parents to get more involved. As we worked through our misunderstanding, she recognised her son's need for her involvement. I had

scarcely expressed my hope that she *would* attend and *had* actually invited her, before we realised, we agreed. Afterwards, both Emily and Alice became more positive and optimistic about our mutual concern for parental attendance. Our communication helped us untangle our confusion.

I assumed it would suffice to give parents the information leaflets and discuss the project with them at the first meeting. I expected they would not be interested in my pedagogic aims and the processes of how I was going to implement an aural approach. However, Emily conveyed her lack of clarity about the pedagogic aims and processes, thinking that they had somehow changed to the repositioning of hands. Afterwards, I emailed her to explain the repositioning of the hands helped learners to locate the correct starting notes. The only form of communication between us was the weekly emailed homework, which sometimes included directions about positioning hands and fingering. Emailed homework would have meant less to those parents who had not participated in piano lab lessons.

I regretted having relied on Henry to pass on a message to his mother rather than phoning or emailing her to invite her myself. In the end, she attended a lesson, and I witnessed the difference in his learning because of her presence. Even if parents have busy lives, their involvement helps to clarify misgivings and ambiguities. The desirability of a parent's presence at least once to observe how children learn ear-playing assists parents in arriving at a better understanding of how to support their child. This was precisely what Lisa had achieved. I became more assertive with inviting parents of new beginners to sit in lessons than I was in the past. Several parents became regular attendees over the weeks, months, and years. Others never attended.

5.4.2 A mother's impactful presence

"In their early years, the most important feedback children use to form conceptions of their own competence comes from parents" (McPherson, 2009, p. 92). Parents help their child bond with their teacher to feel competent and in control of their choices, and to enjoy the fruits of their labours. Parents often feel unsure of how to support their child in music lessons. The kinds of involvement that parents can contribute to learning in the piano lab include observing the teacher, noticing their child's

struggles, and determining when to consult the teacher. Parents give their child their undivided attention while the teacher works with the rest of the group. McPherson (2009) suggests parents "*scaffold* learning by subtle variations of the amount of information they provide within the range of their child's" ability, and adapt their interactions according to their child's progress (p. 97). When children succeed, parents decrease their help; when children struggle, parents increase their support. For example, Emily participated in Henry's first piano lab lesson at the start of the second year, when no one else attended that day. He worked differently when she was there, compared to with his brother, carer, or me. He respected his mother's expertise in music:

> I noticed he had better concentration when she was present. He picked up the bass line easily. A few repetitions were not enough. His mother picked this up quicker than I did. She was apprehensive about him playing hands together prematurely. She didn't think he had the bass line or melody securely enough yet. Thus, he repeated the song a little more, then tried putting it together and seemed to play by ear rather well. Emily reiterated she wanted him to become independent and learn himself rather than relying on others … he must be clear about what he is supposed to do every week … She asked about having to learn to play the songs in different keys to the soundtracks … By the end of the lesson, it seemed to me that he worked better and concentrated more when his mother was there. *Little Brown Jug* consists of quite a few repeated notes and when she sensed his confusion, she broke the repetitions down by counting exactly how many notes.

> I wondered if having to explain learning songs in a different key to the soundtracks was another reason for parents to attend piano lab? … It became easier to manage when parents attended as they could remind their child about their struggles. (Reflective Teacher's Diary, 15 September 2016, week 28)

Henry picked up the bass line easier in her presence for several reasons. When she sensed his confusion about repeated notes, she deconstructed the problem and made it easier for him to play the melody. She recognised he needed more than a few repetitions to make progress, which helped him focus and succeed. Despite this, she wanted him to learn independently of her and for him to understand what he was supposed to practise at home.

5.5 Limitations of emailed homework

Several children could not manage home practice without a parent's support. They used to forget the songs they learned in the lesson when they went home. They also became confused with having to transpose songs to easier keys. The first emailed

homework entailed revising five songs, tonal patterns, and video recording themselves, all of which in hindsight, seem excessive. As the songs' repertoire grew, pupils listened to more soundtracks and revised more songs while I continued with emailing homework. As well as reminding pupils what they learned in lessons, emailed homework potentially opened dialogue for parents to discuss the piano lab tasks with their children and me. I tried to reduce confusion by paying close attention to parents' emails, determine whether pupils understood the homework as intended, and clarify misunderstandings if required.

We could interpret the email channel for homework in different ways. It depended upon recipients' musical experience and understanding, and how well they knew me. Some knew me from their individual piano lessons. Parents showed the emailed homework to their child. Some children were more successful than others at decoding it. Different parents viewed the emailed homework differently. It was a consistent way to communicate and liaise with all the different families.

5.5.1 Piano lab notebook request

Initially, whenever Alice found the homework unclear, she would inform me so that her son would not fall behind or miss out:

> ALICE: I found, from my perspective not being at the class and him not taking notes in the class, when we get the homework, it's difficult for me to know what to do. And I'm asking him – does he know what to do? And he's kind of saying no. So … there's a kind of a bit of a gap between what he does here, and what I see at home … I just don't know whether he's doing his homework correct. That's really where I'm coming from …
>
> RESEARCHER: so how is the weekly emailing of home practice helping then? …
>
> ALICE: It's good … it's a case of trying to get the homework done and get it done close enough to the lesson that he remembers stuff. That's my issue really.
>
> RESEARCHER: Good idea …
>
> ALICE: I suppose it'll become easier as he gets more used to it. But I suppose another thing I was going to ask you is, is it possible for them to have a notebook or even for you to jot down? I know you are giving us the homework … but there is something missing between him being able to know whether he's doing it correctly at home, and obviously I'm not in the class, so I don't know whether he is doing it correctly. And I'm not musically oriented, like I've never done music myself, so I'm relying on the girls and Yvonne now … is doing Grade 4 piano, so what she's telling him. (26 November 2015, week 9, pilot parent focus group interview)

Aiden did not understand the homework. He found it difficult to give Alice feedback about the lesson. Alice presumed it would be easy for me to jot down homework for students, as in individual piano lessons or primary school. I had tried writing homework in pupils' notebooks as a reminder of what they learned in the first lesson. It took a long time and reduced the already minimal duration of the lesson. It also proved impractical for the group setting. Cathcart (2019) noted "A notebook is not enough because music is sound, so it is more powerful for the parent to be in the lesson." The discussion shed light on parents' quick and easy to implement solutions to problems, which might diverge from teachers' solutions.

5.5.2 Efficacy of emailed communication

The emailed homework summarised for pupils what they learned in piano lab so they could practise at home. Naturally, it would have confused non-participating parents who might have expected it to be an educational lesson summary for them. Thus, it had its limits. I tried to keep it short and simple. Emailing homework helped me recap for pupils the musical activities taken place in the piano lab and conveyed my expectations to both pupils and parents. Its reliability, privacy, and two-way means of connecting and communicating with them proved a practical solution. Some pupils instantaneously read the tasks on their parents' phones. It was more legible than my handwritten notes in pupils' notebooks. It helped some pupils to catch up on lessons they had missed, or if they had not paid attention during a lesson:

> RESEARCHER: How have you found the emails, are they helpful or confusing? Jill?
>
> JILL: I think they are helpful because if you're like, in the piano-lab and then you kind of like, you [teacher] tell them the homework … you [pupil] kind of forget what you have to do, and it's much … easier … because if you're in, like, the class … and then someone might, like, not be listening to what you [the teacher] saying … and then when you go home you just go: "I wasn't really listening at all to what you were saying." (Group B pupil focus group interview, 15 December 2016, week 40)

If somehow, I forgot to email pupils the homework, their first response was:

> JILL: Gemma, did you give us the homework?
>
> ISABELLA: coz we didn't get the homework!
>
> TEACHER: … I have to make a note of that. Turn that on [spoke into Dictaphone] "forgot to send the second class their homework." (Group B, 14 April 2016, week 22)

> The instant I opened the door, Isabella approached me saying her mother did not receive the emailed homework from me. Despite this, it did not stop her from mastering *Arabian Dance* hands together. (Group B, 19 January 2017, week 42)

Jill and Isabella's comments suggested they looked forward to receiving emailed homework. It enabled them to progress to the next stage of learning and incentivised them to do more practice:

> When I asked them if they could play *O Susanna*, all hands went up. It indicated that last week's email worked and helped them, including giving them the names of the notes via letter-names and sol-fa. They were competent at playing it hands separately *and* even hands together. (Group B, 26 January 2017, week 43)

They also enjoyed receiving emailed YouTube links and learning the lyrics of the songs:

> I played the soundtrack of the song *Walking Shoes*. Jill reminded me I had asked them to learn the lyrics which I had emailed them. Once the music started, she recited the lyrics confidently. So, I asked her to sing the song solo, which she did enthusiastically. (Group B, 16 November 2017, week 65)

5.5.3 Differing parental capacities for emailed homework

Differentiation is not just a dimension of my practice in the piano lab sessions. It is also an aspect of parental involvement and my relationship with parents from their diverse backgrounds, musical histories, ethnicities, and socioeconomic classes.

Several pupils with different levels of comprehension of the emailed homework required more parental input than others:

> ALICE: I was finding … while he'd be listening to it, the phone would be detailed on the email, I just found that Aiden didn't necessarily really know what's expected of him. (Parent Group A focus group interview, 12 May 2016, week 26)

Qiana emailed me about finding the emailed piano lab homework difficult to understand even though she attended her oldest daughter Penelope's second lesson:

> QIANA: I'm sorry, I am struggling this week, I have no music background and don't attend Penelope's [piano] lessons … and so I regret I should have taken notes or a video of Penelope during the class. I don't understand what major, minor, flat, mean, how you figure out which 'C' to start with. I know where middle C is and how to find other keys from there – that is a start. I'm sorry to be an impediment to both you and Penelope. I will do my best next week taking notes and video. I don't want Penelope to lose confidence in piano so early due to my incompetence. It would help me a lot

to understand what the homework is before we leave the class so I can get a handle on it when I get home. (Email, 25 October 2016, week 33)

Qiana chose the email channel to confide in me about her lack of musical knowledge, rather than discussing it at the end of a lesson when participants exited the room. She perceived herself as impeding both her six-year-old daughter and the teacher. Penelope was the youngest in the group. She started a month later than her peers, thus required extra support. I hoped Qiana would realise in due course that her commitment to support Penelope was more important than her lack of musical competence (Davidson et al., 1996). She found her own way to help Penelope over the course of the year: by attending lessons, video recording my demonstrations and taking her own notes. She preferred video recording Penelope's and my playing in lessons, whereas Olympia depended on emailed homework:

> QIANA: I've no musical background. I suppose the emails, they're double Dutch to me. They mean absolutely nothing. That's no disrespect to you. The videos are the only thing I can go by. They are fantastic …
>
> OLYMPIA: I found the emails helpful, especially just the *d r m* & *f* ... just the notes ... the different keys. (Group C parent focus group interview, 8 December 2016, week 39)

Emailed homework was the easiest and most consistent means of communicating. Some parents responded to my emails asking me to clarify the homework and solve problems with submitting home videos or CD issues. Younger parents, like Qiana, had advanced digital skills, thus could communicate through various technological channels. A few parents seldom communicated by email. Several parents could not email because of a language barrier. What emerges from the data indicates that identical communicative strategies do not function for all parents. Some are more resourceful than others and can resolve their own child's difficulties, whereas others do not or cannot. It does not depend on the teacher alone (Britzman, 2003).

As the year progressed, I covered the many *Jump Right In* tasks and unwittingly increased the homework. I realised from participants' feedback later in the year that I had to scale back. Assigning everyone the same homework and aiming for the middle range of the group may have proved ineffective, discouraging, and demotivating for some. A disconnect between piano lab learning and home practice ensued for those who did not understand the emailed homework and whose parents could not help. Over time, I became more familiar with the repertoire of songs and

selective for use within the boundary of half-hour lessons. I began entrusting pupils with tasks that gave them more choice and flexibility. They listened to other versions of the *Jump Right In* songs on YouTube which helped me bring other "resources from around the world and in a wide range of genres and styles into the classroom" (Wise et al., 2011, p. 131).

5.6 Negotiating expectations

5.6.1 Alice's expectations for her son

I thought Alice's presence might help support Aiden and enable him to give her feedback about lessons or homework, therefore, I invited her to attend lessons. I tried to be receptive toward her suggestions in case she detected something was amiss about my practice. I reckoned that involving parents would lead to progress, which would lead to happier participants and a more successful practice (Creech & Hallam, 2003; Fisher, 2018). Alice was glad to be invited:

> RESEARCHER: Would it help if you were to stay in the class a couple of times … are you able to do that timewise? ...
>
> ALICE: It would give me a better picture … Aiden started off at two and a half with Suzuki violin, so obviously I've done Suzuki violin … the parents are heavily involved with the Suzuki programme … so yeah there's a legacy of me having to do the practice with them.
>
> RESEARCHER: Alright so then the legacy can continue on, and you can come to the classes here if that
>
> ALICE: yes, thank you, even one or two classes is perfect … when they are learning new stuff, it's just … you know some of the kids are good at bringing home the information whereas … the younger ones tend not to … I suppose having come from Suzuki method and the girls doing the more traditional and not doing piano lab until Grade 2, I'm very interested to see whether the two merge and enhance his learning and speed up his ability … at different levels … I would always have thought the two merged together.
>
> RESEARCHER: You mean the piano lesson and the piano lab?
>
> ALICE: The piano lab where it's all aural and the piano lesson where it's all visual. It's … seeing how the two interact and whether they benefit each other … I do feel it … enhances Aiden's ability to benefit from his actual classical lesson. (26 November 2015, week 9, pilot parent focus group interview)

These interactions signify the importance of mutual understanding between a parent and teacher. Alice used her prior experience of Suzuki violin as a benchmark to determine if the piano lab would be a similar experience, with the same expectation of parental attendance. She began to understand my expectations and my way of teaching. I gained insight into her expectations, history as a parent, and attitude toward piano practice. When seven-year-old Aiden started coming to piano lab, I needed to understand his needs, motives, and prior learning, which is true for other students and parents. Thus, the teacher is never simply involved in a pedagogic relationship alone with the child. Behind this relationship, informing and shaping it in many complicated ways, is the child's relationship with their parent, the teacher's relationship with the parent, and theirs with the teacher.

Alice's experience in music education emerged from her four children studying six instruments. Her three daughters learned via the traditional notation-based approach, whereas Aiden's music studies began with Suzuki violin at two and a half years old when Alice had to be involved. Owing to the aural input he received as a toddler, Aiden fared better than other pupils in the piano lab at figuring out how to play by ear. Alice's purpose in attending lessons was to gain greater understanding of what transpires in piano lab and to support Aiden's home practice.

Her insightful parental prior experience enabled her to support the practice routine with her other children via the notation-based approach and with Aiden via the aural-based approach. She hoped Aiden would require her support less than when she had been involved in his Suzuki studies. She said she would attend a few piano lab lessons, especially when he would learn new songs.

Alice promoted an aural foundation for Aiden's violin learning with the Suzuki violin approach. Later, she changed to the traditional notation-based approach for his individual piano lessons. She wanted him to benefit from a balance of both aural and reading skills, so that his ear-playing would enhance his playing of classical music in his piano lessons. Her stance on aural-based piano lab and notation-based piano lessons showed her developing appreciation of broad musicianship skills for her children. Although she lacked musical training, she invested much time and effort into her children's music studies.

Certain parents like Alice are more confident with expressing their concerns about homework expectations than other parents, who might feel uncomfortable with being unknowledgeable about music. Even if parents do not come from a musical background, their prior experiences with their older children assist them to instil a routine that prioritises practice as close as possible to the lesson, which inexperienced parents with their first child taking lessons might be ignorant of. Listening to parents' concerns, being open to feedback, and developing a plan to address problems elucidates the advantages of a harmonious parent-pupil-teacher trio.

5.6.2 Conflicting home-practice expectations

The purpose that informs these communicative acts centres on supporting the pupils. Tubbs (1984) maintains that communication is more efficient in small groups of a close age range. According to Moore, teachers collaborate with pupils in the learning process rather than presenting themselves as all-knowing (Moore, 2004). Creech's study (2006, p. 142) found "a dimension of reticence within even the warmest of pupil-teacher relationships, whereby teachers retained the balance of power." Pupils in one-to-one lessons did not feel at ease to talk about their views or difficulties with their teacher. Davidson et al. (1996, p. 44) maintain that "in the early stages of teaching, personal warmth is a vital characteristic of the instrumental teacher. Pedagogic competence is not enough."

I found it challenging to maintain a balance of pupil-teacher power with these young children. Even so, it was easier within the context of groups than in individual lessons because pupils were not alone with me. They had their peers for moral support. As the project progressed and pupils participated in focus group interviews, they became more familiar with me and one another, and more comfortable discussing their views and difficulties. It is interesting how the dimension of time plays out, especially in relation to long-lasting relationships with instrumental teachers. Piano pupils often continue studying music with the same teacher for ten years or more, and three years in the piano lab.

Fisher (2010, p. 181) claims "the success of the child hinges, at least in part and many times significantly so, upon parental involvement and support." Parents who

engage in lessons become aurally aware through listening to teacher demonstrations and to their child learning to play by ear. Despite lacking musical knowledge, parents who oversee practice at home enable pupils to detect mistakes and foster assurance in their child's playing (Margiotta, 2011). Knerr (2006) considers it illogical to expect self-sufficient practice from young beginner pianists and recommends parental supervision in the early stages of learning. Without parents supervising practice, their child might play through songs without tackling the troublesome parts, resulting in slower progress. The children of parents who do not wish to be involved must contend with managing the learning process alone.

Alice and Emily expected clearer emailed homework. I had hoped this form of communication would have sufficed since it worked for some. Emily and Alice wanted their sons to learn to play by ear independently of them. Yet the boys struggled without their mothers guiding their practice at home. Both mothers wanted me to know what was happening outside of the piano lab and to consider their confusion and expectations. They were expecting me to enable their sons to give feedback about piano lab activities and homework, and to write clearer emailed homework. Meanwhile, I was wondering why they seemed to have withdrawn from helping their sons at home. Chronister (2005b) argues that although it is part of piano teachers' job to motivate pupils to practise, "parents cannot expect us to do it all, placing themselves beyond participation in the ongoing task" of developing orderly and regular home practice (p. 106).

Aiden made good progress during the times when Alice attended and made sure he practised. By the end of the second cycle, he had missed four lessons due to illness. Unfortunately, she had not attended piano lab consistently as she had on previous occasions. Naturally, she became concerned that he had fallen behind. I agreed with her that his progress stalled and suggested he revise the songs carefully at home for the student concert. Instead, she arranged for his older sister, a grade 4 piano student, to observe a lesson and help him catch up. He learned songs quickly because he had a good ear and seemed quite capable of practising on his own at home. Later, I emailed parents the score of familiar songs when it was time to read them at home. Alice was the only parent to print the music, which Aiden brought to piano lab and read competently.

Although Henry was sometimes late, he only missed one lesson over the year. He enjoyed learning in the group environment and helped others when they got stuck. He was more interested and successful in playing melodies than bass lines. For this reason, he struggled to play hands together. When he had mastered a bass line and then tried to learn the song hands together, he used to change the left-hand bass notes randomly, without discriminating whether they harmonised with the melody. I wondered if I had neglected other strategies that could have helped him master this. My impression was also that he had not revised or mastered what he had learned in piano lab when he went home. By the time he came to the next lesson, he forgot the songs. He continued to struggle with playing them hands together and had become familiar with and reliant on my help. Throughout the year, I had spent extra time helping him more than the other pupils in his group. I became suspicious about his practice and wondered if the problem was a delay in practising after the lesson. It seemed unlikely he would practise as I hoped, or Emily would ensure he practised.

Beginners should only practise new material after they can play it independent of the teacher (Knerr, 2006). I thought I *had* presented the new songs enough for Henry to master them at home. His lack of progress was disconcerting. I was concerned about not supporting the other students because of spending significant time helping him. My response as his teacher toward his lack of progress grew out of my doubts about whether he practised, just like other piano teachers. As summarised by a teacher in Cathcart's study, (2013) the most frustrating aspect of piano teaching is: "Children who do not practise! AAARRRGGGGHHHHHHHHH!!!" (p. 308). I decided to help him less to see if it would make a difference. A wise teacher "will develop unobtrusive ways of monitoring and encouraging progress and will not be too quick to solve every problem" (Uszler et al., 2000, p. 150). Perhaps I was trying too hard to solve Henry's aural difficulties. I could have tried another tack, such as asking him questions that required his opinion and helped him speak about what *he* wanted to do (Uszler et al., 2000).

As a measure of continuity, the emailed homework reiterated practice at home and linked to what pupils learned in lessons. It conveyed my expectations to pupils and placed the onus on parents to oversee their child's practice. Some parents took the initiative to understand and keep abreast of emailed homework. They video recorded my demonstrations in lessons so their child could recall how to play the songs when

they went home (Fisher, 2010). I had expected musically trained parents to grasp the emailed aural homework quicker than other parents. However, their feedback highlighted how I had misjudged their understanding of the processes required for learning aural skills, as they seemed constrained by prior learning.

Finding the right balance communicating with different parents required delicate negotiations. Different conversational scenarios included advising families on purchasing suitable pianos and piano stools, usage of the soundtracks, and accommodating homework preferences. Educating parents also became apparent so they could support their child's home practice. Uszler et al. (2000) assert that a capable teacher must teach families "effective practice habits, suitable goals, time management, and appropriate division of accountability in all these areas" (p. 179). It was easier to communicate with those who brought their child to the door and alerted me to issues or responded to my emails. I could have arranged more face-to-face meetings with parents or made more phone calls to discuss their child's progress and our concerns. I felt constrained by my responsibility to communicate effectively, yet not wanting to impose on parents who I knew were very busy. Most parents assumed their role as remaining in the background, resisting involvement, so their children could manage independently of them, which did not suit every child.

I sensed Henry's progress would continue to be minimal without his mother's involvement. He did not submit home-videos, so I was unaware of how he was managing at home. I hoped parents would come to lessons, get involved, take notes as they saw fit, schedule a practice timetable, and ensure it happened consistently. I trusted they would adapt to their role as home coach and inform themselves of the basic skills they required to help their child at home. It seemed difficult to make this clear to some parents.

Parents developed their own expectations about what piano lab lessons should comprise, based on their prior experiences with music lessons. They might have expected me to assign clearly written homework in notebooks, as in individual piano lessons or one-hour music theory classes. Rather than preparing for examinations, they might have doubted the aural approach of imitating recordings and improvising. I aligned my lesson plans according to the *Jump Right In* approach, with pupils learning ten songs annually. To "accommodate student learning," I tried to be

adaptable by diverging from lesson plans (Pike, 2013, p. 99). Sometimes I wondered if I had relapsed into trying to squeeze too much into teaching, at the expense of allowing students more time to learn (Smith, 2014). No matter how hard I tried to anticipate difficulties associated with ear-playing, I had to unravel problems "through trial by fire, or sink or swim" (Britzman, 2003, p. 10).

Fisher recommends parents take "the lesson home and repeat it daily," for five days a week with their young child, until the next lesson with a few short "distributed practice" sessions during the day. Richard Chronister said:

> It is the daily practice of something that is correct each time it is done that produces solid learning, not doing it over and over and over with us at the lesson until it is right (Chronister, 2005c).

Piano teachers need to discuss with parents and pupils effective practice habits. They make recommendations about purchasing a piano and an adjustable bench. Also, they promote having a suitable home-practice environment that is quiet, with sufficient lighting, away from the television, telephone, iPhone, iPad, and Internet (Chronister, 2005b). For piano lab, pupils need the laptop or CD player to be near the piano.

By the end of the first year, parents' expectation of what progress might look like in the piano lab depended upon my assessment of their child's progress in learning ten songs. If pupils failed to achieve this, parents might have assumed that I was disappointed, which I was. I will return to exploring my disappointment later. Over the course of the following years, I stopped reviewing all ten songs in one lesson and carried out informal assessments for adjusting lessons (Pike, 2013). Also, the home videos helped pupils assess themselves.

Teachers prioritise sightreading more than ear-playing, which might lead pupils and parents to undervalue the latter. One might assume that if aural skills were part of the graded examination system, pupils might practise ear-playing skills more rigorously. Indeed, pupils often asked me when they would have ear-playing tests. Pacheco-Costa (2019) argues that ear-playing with its different "modalities should also be present in graded exams, thus encouraging teachers to develop aural skills with their students" (p. 171). Playing by ear might be a somewhat different practice to sightreading under the pressure of assessment. Criteria of accuracy and correctness

assume greater significance and are more easily accommodated within an apparently objective regime of assessment. If ear-playing involved high-stakes assessment, it might be similarly affected, which might negate pupils' learning.

This chapter has revealed the complexity of the negotiation of roles and expectations between parents, teachers, and pupils. No matter what a teacher tries to do, fix, or prevent from happening, unforeseen challenges are implicated with teaching in the piano lab.

5.6.3 Challenges to a music school's paradigm

Three years later, Henry returned to my piano lab lessons aged 11. He could sing in tune but struggled with *reading* the bass lines of sightreading exercises. I wondered why he found the bass register difficult, both aurally and notation-wise. While wearing headphones, I caught him amusing himself by sustaining the lowest *bass* notes of the digital piano's organ sounds. *He* said it sounded really interesting. He enjoyed experimenting with the bass digital sounds, but not learning bass lines and harmonising them with melodies, although he could, when called-for.

> The moment the beginner first puts his fingers on the piano keyboard … he is exploring both himself and the nature of the material world, exploring it not to dominate it but to live more fully in it … it is the process of exploration, not its product, that is precious. (Small & Walser, 1996, p. 199)

It was a striking moment as it confronted me with a student who defied complying with playing as I, in teacher mode, desired students to play. He was not rejecting music or announcing his lack of interest in the piano lab music or sightreading. Small and Walser (1996) suggest: "he must be left free to decide what it is he needs (I repeat, *needs*) to learn" (p. 202). The difficulty this presents to my assumptions of what engagement and progress resembles is the apparent conflict between what the *teacher* knows best to teach, with what the *student* needs to learn. Britzman (2003) argues we have to "interfere" with each other as learning and teaching is perceived as interfering, quarrelling and "as a confluence of influence. Paradoxically, significance, or better, education, is made from this conflict" (p. 8).

Progress meant enabling pupils to have a balance between sightreading and ear-playing skills. I prioritised learning songs by ear based on their feedback about what they enjoyed doing. Henry had other ideas. He preferred using music technology "for

creating music and doing things with sounds and sound effects" (Crawford, 2014, p. 65). Perhaps he was bending "the pitch of the note either above or below its true centre" (Salaman, 1997, p. 144). His fascination with the organ's lowest notes on the piano's digital sounds offered him "genuine scope for imaginative invention" (bid., p. 149) but it interfered with what I thought, in teacher mode, pupils should play. I was dismissive of pupils' need to explore the digital piano sounds. The *half*-hour time limitation constrained me to focus on aural and reading skills. I could have contemplated exploring the digital sounds' scenario in *hour*-long lessons. Therefore, I resisted getting side-tracked by one pupil's preference to experiment with interesting sounds. Otherwise, whole group inattention would have ensued.

Henry's approach confronts my expectations. His careful listening of interesting bass tones was meaningful, immediately useful, and valuable to him. Increased student-led learning and reduced teacher-led teaching could have led him to engage more in lessons. Students become more motivated when teachers notice and value students' zest for music and promote student-led learning, rather than greeting their peculiar musical interests with dismissive irritation. It fosters curiosity to improvise or compose music using the keyboard's chiming gongs or learning to play the organ. The episode reveals a challenge to the paradigm which exists within music institutions and with me as a teacher. Acknowledging this is a strength of the data that I present.

Henry's exploration of non-piano sounds on the electric pianos also points to the fact that these instruments are capable of a vast array of sound worlds. The extended sonic range has a role in aural models of learning, and in making group piano learning more engaging. It promotes creativity for orchestrating and composing music and ensemble work, which was possible with the former Roland digital pianos. As mentioned earlier, the portable P-121 and P-125 Yamaha digital pianos arrived in the piano lab in 2020 with weighted action and USB ports, to host connectivity with MIDI. Unfortunately, they have limited orchestral sounds, including electric piano, organ, harpsichord and strings, compared with the lab's previous Roland digital pianos.

5.7 Mothers' opposing views

None of Group B mothers came from musical backgrounds. They were used to their children learning without them in piano lab, which these pupils were quite capable of. Conor's mother, Lisa, was the only one from this group who had attended a piano lab lesson. The group managed the songs very well. They found playing by ear a great deal more difficult when I deviated from the *Jump Right In* approach and taught other songs such as *Walking in the Air*. Despite emailing them it in sol-fa, excessive decoding via sol-fa made it more complicated to learn for some participants. Their mothers commented:

> CLAIRE: just to say we found … that the instructions can be a bit clearer for a non-musical parent. At times we found it difficult to know what you mean.
>
> RESEARCHER: Yeah, so how could it be clearer? You see the thing is, sol-fa
>
> BETH: But the kids seem to understand it. Unfortunately, *I* don't understand it, but they seem to know what you're talking about.
>
> CLAIRE: to understand it. Wouldn't it be great to be able to help more! …
>
> HELEN: *She* [Isabella] knows ... I have no idea … but she knows …
>
> LISA: I didn't know if it was sol-fa or if it was the letter-names because there was say *d* lower and then there was like "*times 6*," I don't know
>
> RESEARCHER: Ok. Oh, *dm* is d minor for the chords … I understand what you are saying now. I should have something to explain what *dm* is …
>
> LISA: You could maybe do, at the start of the year, a programme, just one hour with just the parents going through all the different types of instructions that we are going to get. It might work … You could probably produce some sheet …
>
> RESEARCHER: Yes, very good idea. Yeah, coz I've been: 'how do I do that?' …
>
> BETH: Or else you'd have to start teaching us, as parents!
>
> Everyone laughs. (Group B parent focus group interview, 8 December 2016, week 39)

What emerges from the dialogue recorded here is considerable anxiety and variation in parents' sense of what their role should entail. Beth and Helen appear to indicate that although they do not understand the emailed homework, their children do, so that is okay. Should we accept these comments at face value, or do they indirectly allude to anxiety or dissatisfaction? Their views might contrast with Claire's or be considerably closer than might first appear. Claire wanted clearer homework,

echoing Emily and Alice's sentiments from the previous focus group interview. Claire argued parents could be more effective in supporting their child at home if they had some help, rather than being powerless onlookers. She felt anxious and powerless to help her daughter Grace when she struggled with her piano lab practice at home. She wanted clearer emailed homework for Grace's sake and to understand the instructions so that she could help Grace. Although she had not shown an interest in attending Grace's individual piano lessons, she was willing to get involved in piano lab if it would help Grace. Claire showed an interest in participating in piano lab when she heard other parents discussing their individual challenges and potential opportunities to get involved. Claire and Lisa wanted to understand the homework better, especially my emailed abbreviations of sol-fa, and capitalised letters of major/minor differences.

Helen struggled to speak English yet relayed her observations of her daughter. Isabella listened to the songs at home with attentive care and learned to play them unaided. Helen must have motivated Isabella to practise because she always arrived prepared as a thorough musician. From Helen's perspective, Isabella did not need her mother's help at home or in the piano lab. Helen's role as an encourager of home practice seems genuine and credible, as Isabella progressed expeditiously and developed broad musicianship skills early on. Richard, Helen's husband, told me about a month after the focus group interview that in their culture, children were trained to work hard and practise diligently.

Beth's comment: "the kids seem to understand it. Unfortunately, *I* don't understand it," offers a challenge to the conclusions that arise from my analysis of parental involvement in Group A. Earlier on in the chapter, it looked as if the emerging conclusion was that piano lab teaching involved teaching parents as well as pupils. Here, Beth might be indicating parental involvement or even parents' understanding of a teacher's instructions is not a precondition for successful progression.

Group B mothers discussed their children's difficulties within the context of learning the song *Walking in the Air* using sol-fa. Beth attended her daughter Bianca's first year individual piano lessons. She did not, however, see the need to take part in piano lab. Music was not at the top of their agenda. Beth appreciated the emphasis on playing by ear. It gave Bianca a break from having to read notation and become

more of a social pianist. The examination system disillusioned Beth because Bianca suffered from performance anxiety. Beth wanted her to enjoy performing music. She noted Bianca found practice a bit of a chore. Bianca enjoyed group learning, as it compensated for the isolation of individual piano lessons. She had a good ear and enjoyed figuring out songs by ear. Initially, aural skills came easier to her than reading notation. Beth believed Bianca did not need her help in piano lab, as Bianca could do it herself. Beth did not mind being ignorant or unable to assist, as other family members could help with difficulties in notation reading prior to examinations. She did not seem interested in learning music for herself, only for her children.

Beth believed the children in Bianca's group knew what to do when they read the homework, since *they* were the ones doing the tasks in the lessons, not the parents. It did not matter that their parents might not understand it. Beth may have been resistant to taking part in Bianca's piano lab learning because, besides music lessons and other activities, she had reached the limit of her commitment. The possibility that she might have to become more involved might have caused her some anxiety. She also might have been defensive for my sake when some parents were critical about the lack of clarity in the emailed homework. Or perhaps she saw her role as a background encourager, allowing pupils to mix amongst themselves without adults interfering.

Differentiation is part of parental involvement. Certain children struggle with ear-playing and require their parents to participate. Others do not. Alice and Emily realised their sons needed their support within lessons. I too, wanted the mothers to get involved. We were unaware that we agreed until the parent focus group interview. Some parents arranged for an older sibling to assist by attending lessons and helping with home practice. For example, Alice got her oldest daughter to help Aiden with his piano lab homework. Beth relied on her oldest daughter to help Bianca with her work on technique, repertoire, and sightreading for her piano lessons. The focus group interview was an essential part of uncovering participants' perspectives and resolving challenges.

As mentioned previously, I had higher expectations of parents who came from musical backgrounds. I presumed they understood the emailed homework and did not require aural educating. Parental involvement for the first month might suffice for

some families in figuring out how to support their child's use of the soundtracks at home. It could benefit those from traditional musical background who might be more resistant to playing by ear. Involved parents learn how singing is an integral part of ear-playing skills.

The implications of this complexity and the uncertainty of any interpretation for piano lab teachers are that we need to be flexible in accommodating a range of people's needs. Some pupils depend upon their parents' help in lessons, others do not. Some parents are interested in research, getting involved and becoming musically educated with their young child, others believe they do not need to participate. A few parents recruit a suitable older sibling in their stead who observes lessons and helps with the home practice. Several parents might have anxieties about committing to music lessons because they prioritise sports. All parents can play a role as the complementary home music educator, and benefit from coaching on best-home-practice-habits, irrespective of the priority level they allocate to music. Teachers depend on parents to sustain pupils' commitment and enthusiasm.

Different scenarios carry implications for the piano lab teacher to offer parents options, whilst adapting to their individual requirements that help them become complementary educators. It means not presuming those who come from a musical background know how to support their child aurally. Parent-teacher-pupil meetings broaden the potential for sharing ideas and solutions and push the boundaries toward a more harmonious trio model. Lisa's suggestion for an introductory one-hour tutorial for parents might clarify musical terminology for practising emailed homework. Parental involvement in piano lab offers optimal support because parents can transform the piano lab into Parent Pupil Mentor Programmes and Workshops. Unfortunately, I did not have time during the project to offer lessons or briefings to boost parents' ability to support the learning and explain the approach, as Lisa suggested. I encouraged parents to attend lessons, or interacted with them by email or phone. And I have not taught beginner pianists in the piano lab since the end of the project in 2018.

Parental musical background was an influence within the project. Some parents brought their children to classical and/or jazz concerts, which inspired their child's enjoyment of music and motivated them to continue learning ear-playing in the piano

lab. One parent's choral experiences influenced utilising sol-fa, which supported her daughter's ear-playing (Koutsoupidou, 2016). Other parents' aspirations guided their child toward exploring specific music genres, "guided by their own personal tastes" (p. 84). The limited musical knowledge of most of the parents in the project did not appear to influence their views about educating their child in music. If anything, their own individual lack of musical background seemed to have motivated them to become ambitious for their own child's prospect of becoming a musician.

5.7.1 Pupils concur with their mothers

Group B pupils were also asked about their parents' involvement:

> RESEARCHER: Do you think that your parents need to be heavily involved? Do you need the help of your parents, or can you manage it yourself?
>
> ISABELLA: shakes her head
>
> BIANCA: I can manage it …
>
> RESEARCHER: What about you Liam? ... do you need your father's help?
>
> LIAM: Yeah, just sometimes when I'm like stuck.
>
> RESEARCHER: What about you, Conor?
>
> CONOR: Exact same!
>
> JILL: … when I was out for one day you were writing like a *si* and *fi* on it, and I was like asking my Mum and … then my Mum was like 'I have no idea' …
>
> GRACE: Well, I suppose it depends if the song is hard you know, sometimes you need the help. (Group B pupil focus group interview, 15 December 2016, week 40)

Group B pupils endorsed what their mothers said. Jill confirmed the confusion they had with the song *Walking in the Air*, especially having to decode it via sol-fa. Grace also acknowledged she needed help when learning a complicated song, which corresponded with what her mother, Claire, said. Isabella agreed with her mother Helen that she did not need her help. Bianca concurred with her mother Beth that she could manage on her own. Liam and Conor accepted they sometimes needed their fathers' guidance at home. Fathers had a more subdued role in this project, partly because I emailed the homework to more mothers than fathers. More mothers attended both of the parent focus group interviews, and got involved in lessons with

their child. None of Group B thought they required their parents' support during lessons. However, all of them, except for Isabella, needed help with learning difficult songs, while most of them did not need help with the *Jump Right In* songs.

5.8 Dialogic model that addresses disconnections

What began with a hunch about the disconnect between music theory and practice in my local context led me to enquire if other piano teachers agreed. I also wanted to enquire into their views about the difficulties they had with teaching beginners. A teacher responded:

> [For pupils with] natural strength to play by ear … there's no motivation to make the effort to try and figure out what's [notated] up there [on the score] … Our focus is primarily on the reading, and my instinct is, I'd like to have it primarily on the reading. But I think supplementing it with aural stuff is fantastic. I wouldn't like to see the balance shift the other way … We are in an environment where most of the kids have fantastic rhythmic training in [applied] musicianship [classes] it's extraordinary how you can get them to clap any rhythm perfectly, yet when they try to transfer that on the little bit of sightreading that we're doing, it's like everything they've ever learned about rhythm has evaporated (Focus group interview of teachers, 16 November 2015).

I found pupils were proficient with rhythmic chanting, clapping, and singing melodies, but not when applied to piano *playing*. Having completed that piece of research and established teachers agreed about the disconnect, I worked on my hunch to do something about it through my research project.

In the first year of the project, the lapse of time between playing the songs by ear and reading them comprised several months. Pupils learned all ten songs aurally over a few months prior to reading them. Lisa and her husband Jack noticed Conor's tendency by the end of the first year, not to want to read the songs once he had learned them by ear. As mentioned above, it was also a concern that piano teachers and I had. Pupils' notation reading might suffer if excessively allowed to remain in the aural domain. For example, Conor's parents expected he would have read the notation of the songs earlier:

> JACK: … even I could follow the notes. And if he'd play an incorrect note or he'd started with the wrong note I could pick it out straight, pretty quickly. But the only thing I would say, and we only started at home, and I don't know if we should be doing it sooner or not, but the written music itself
>
> RESEARCHER: No, I only gave that last week

JACK: yeah, coz I saw it and that was the first time I had seen it and was working on it then but hmm maybe if we had that a little bit earlier. I know that might … go against research but if we had that a little bit earlier hmm, it could have been helpful … I'd say we knew most of the songs by February …

RESEARCHER: I should send out the notation?

JACK: the different types of songs. We weren't adding to repertoire, we were repeating repertoire. (Group B parent focus group interview, 12 May 2016, week 26)

LISA: he [Conor] didn't seem to want to read the music when he could play the songs [by ear]. So, maybe introducing the reading of music a little earlier in the process rather than at the end would have been more beneficial if you want them to read it as well. (Written statement, May 2016).

I reduced the time-lag during the second year and improved the synchronisation of both skills. Pupils learned one song at a time by ear. Then they read it within about three weeks as soon as they could play it hands together by ear. This was better than pupils learning all ten songs by ear over eight months and then reading them. Jack and Lisa's suggestion to read songs without delay after pupils learned them by ear, relieved my concern that they might not read the notation when learned by ear first.

When teachers engage in dialogic relationships, a different model of practice and research emerges from the one in which teachers simply implement their ideas without referring to participants. Parents' feedback and suggestions shape teachers' future practice. Ultimately, the participants are the ones involved in evaluating and making proposals for modification, rather than being mere subjects of the research process. Dialogic teacher-parent relationships entailed listening to and considering the viewpoints and values of parents. The 15–minute focus group interviews enabled parents to voice their views, share understanding, evaluate children's uncertainties, and determine what worked or did not work. Parents like Jack and Lisa shared their observations, which highlighted the potential risk with an aural approach that impeded music reading when excessively delayed. Jack's comment that "we weren't adding to repertoire, we were repeating repertoire," revealed he could contribute pertinent feedback from his own life's experience, notwithstanding his non-musical background. Parents can help resolve teachers' pedagogical challenges.

Areas of conflicting expectations between the teacher-pupil-parent trio include "practice, musical preferences, and time commitment" (Creech & Hallam, 2003, p.

38). Major obstacles for teachers engaging in dialogic relationships with parents might entail fear of parental feedback and time restraints. Teachers can achieve positive change by establishing relationships that include feedback strategies.

> No matter how participative a school is in terms of involving teachers in policy formation and review, it will fail to achieve an integrative mode of action if that involvement does not also extend to parents and students … Any claim teachers might make to professionalism within the new management of education should be based … on a commitment to breaking down the old professional monopolies and working with both students as agents of their own learning and parents as complementary educators. (Nixon et al., 1997, p. 25)

This dialogic approach conflicted with my prior sense of professional identity. I subconsciously thought I was supposed to be the expert professional musician, with all the answers for pupils and their parents. My identity as a perfectionist performer seeped into who I thought I should portray myself as. Not having all the answers and being open about it unsettled my comfort zone. "We fear making ourselves vulnerable in the midst of competitive people and politics that could easily turn against us" (Palmer, 1997, p. 21). The potential for feeling vulnerable because of parents' criticism is perhaps a reason instrumental teachers might be wary of engaging with parents. I sensed my practice would benefit from parents' input in my role as a researcher, therefore, I listened to and learned from them. While trying to find solutions to problems, I responded to their criticisms. Although unsettling, facing criticism about ear-playing activities rather than avoiding it benefited all involved in the long run, as it advanced the cause of pupils becoming lifelong musicians. Being mindful that my future students would consider ear-playing as part of their musical development made my work more meaningful.

5.9 Enjoyment as critical for learning to play by ear

Conor always enjoyed playing by ear even before taking part in the project. His mother Lisa wrote at the end of the first year:

> My son … says he enjoys the class a lot … One day I participated … I really like the learning by ear approach and think it's amazing how music is deconstructed and reconstructed. It has been great for my son as it's what he started out doing with some of his favourite songs (May 2016, week 26).

Lisa's statement suggests the importance of enjoyment as critical, as it nurtures children's desire to learn their favourite songs while improving their ear-playing skills.

Parents appreciate listening to their child making progress and enjoying playing by ear. They are more likely to attend lessons and support homework when their child enjoys playing than when they struggle and do not enjoy it (Borthwick & Davidson, 2002; Macmillan, 2004). Lisa had a sense of the pedagogic approach I employed as offering Conor potential understanding of musical structure in the early stages of learning. He became interested in the piano lab music and applied what he learned to other music genres and his favourite songs. In the process, he discovered what motivated and inspired him to persevere (Green, 2014). Being exposed to a wide range of repertoire reinforces musicianship (Pike, 2013). His father recalled:

> JACK: I've noticed with Conor … he gets great joy out of it, right! And there's lots of places to make errors and … to keep playing, coz it's less structured than when you are reading off … the page. Ah, you know, he'll hear a U2 song and go over and bang it off on the piano. [Everyone chuckles]. And he's not afraid to sit down and see if he can find the core melody and play the melody, or you know a *Star Wars* theme, or if we've watched a movie that he likes, he'll try and hammer out the melody by himself. So, I think … what I see is a lot of confidence in him growing, quite a bit in confidence. (12 May 2016, Group B parent focus group interview, week 26)

Conor benefited from autonomy-supportive parenting (McPherson, 2009). For Jack and Lisa, the joy of playing music was important. Jack appreciated piano lab as a place for non-assessed learning. Conor could apply what he learned in piano lab to music he encountered in different contexts in the world beyond the classroom. He also showed his understanding of the power and freedom of this approach and its applicability to all forms of music. Experimenting with different genres as a musician positioned him differently than being a passive student who must comply with the teacher. Ear-playing gave him the freedom to learn to play anything he liked. It entailed a different relationship to the keyboard. Conor could relish his own music-making and have a positive attitude toward music and performance.

Also important as part of playing the piano for enjoyment is Jack's view of the piano lab as a setting where it is okay to play music with mistakes. It gave Conor a break from focusing on playing fewer mistakes in his cautious practice of classical music. Jack discerned Conor's progress with improvising and engaging in musical conversation. He could experiment with notes, rhythms, melodies, and bass lines. Both Conor's parents appreciated the aural approach I used. Jack perceived it as broadening Conor's understanding of musical genres, as Conor became confident

figuring out famous songs by ear, as another way of learning music, besides music reading.

Having to practise piano because of expectations based on how parents and the teacher invested in students might alienate pupils and lessen their enjoyment of practising. Being positioned as active musicians enables their experience of alternative encounters with other musical pathways. They can apply what they learn from international songs and other genres and adapt them to other modes of performance. In the future, they might form an ensemble or band, accompany other instrumentalists and singers, or source further improvisational ideas.

5.10 Concluding remarks

Tschannen-Moran et al. (1998) claim "change is difficult. Even when changes are made for the better, they are uncomfortable and stressful" (p. 236). When teachers expand their methods for managing modifications and find proof of students' progress, "their personal teaching efficacy increases" (p. 237). My practice changed as my engagement with pupils and parents increased (Smith, 2014). Putting into practice an aural approach involved speculating about ways to resolve difficulties. I sometimes had to mediate between pupils and parents. For example, when home practice became a chore and parents found it difficult to motivate their child, I encouraged parents to get involved. "Classroom practices are produced, interpreted, and acted upon in multiple and contradictory ways" (Britzman, 2003, p. 215). The "contradictory realities of learning to teach" (p. 122) how to play by ear entailed managing pupils' different progress levels within the limited time frame of weekly lessons. It also involved enabling parents to cope with the challenges that they faced when trying to support their child. Transparent discussions within the pupil-parent-teacher relationship produced meaningful pedagogy and sympathetic correspondence. I encouraged parents to discover their own ways of resolving problems. As I initiated the focus group interviews, I became more of an organiser, negotiator, and mediator. My interactions with pupils and parents shaped my developing music teacher's identity as I became more aware of their perspectives and my teaching efficacy grew.

> While we all live in myths, some myths instigate repressive notions of pedagogy and identity, while others open us to the dialogic. This latter image of teachers—as

> negotiators, mediators, and authors of who they are becoming—is the place where identity becomes infused with possibilities. (Britzman, 2003, p. 29)

When I live in repressive beliefs about piano pedagogy, my identity as a music teacher changes little. Using the notation-based approach prevented me from breaking cyclical pedagogical problems. A fear of parents' complaints, their potential interference, and managing their musical ignorance also came to the forefront of my practice. I wondered which practices could help me come to terms with these difficulties and conflicts (Britzman, 2003). To a limited degree, reading literature helped change some of my engrained teaching habits. The strength of tradition, however, was persistent in my teaching. It took a strong catalyst like my ear-playing research project to help me change my pedagogical ways (Cathcart, 2013).

I am a different teacher now from when I started this project. Organising focus group interviews with parents, listening to their individual and collective voices, and interacting with them more than I used to helped me change my practice. The aural lessons began with young beginner pianists, but soon, their parents trickled into lessons. Later, small groups of parents formed, participating, and supporting their children at home and in lessons. It led to an eclectic mix of learning and teaching. Disconnectedness and ambivalence used to be the dynamic of my teacher-pupil-parent trios. This changed as the research forced me to connect with parents, listen to, and study their feedback and follow up on their questions.

To teach how to play by ear meant I had to negotiate interpersonal conflict and misunderstandings of parents' preconceived ideas about piano lab learning. Although it might have seemed ineffective to some participants, emailed homework was a viable alternative I had not used before, far better than having to write notes in pupils' notebooks. Reflecting on different pupils' preferences helped me notice the songs they enjoyed and the digital sounds they explored. Relying on feedback from pupils *and* parents increased my connectedness, which bolstered the pupil-parent-teacher relationship and, in turn, pupils' aural productivity.

CHAPTER 6: DIFFERENTIATION

Vignette 3

Group C pupils played the melody of *Walking in the Air's* first verse with me. I requested pupils practice playing the melody with their right hand while I checked each one for a brief time. Oliver could only play the first phrase. He alone needed considerable help. I ended up spending most of the lesson helping him learn the melody. It did not seem like he practised, even though his mother had video recorded the song the week before, which was disappointing. Yet I was glad the others had. We repeated playing the melody together before I played the accompaniment twice on the pianos in the rear of the room with the new circular arrangement. Despite my difficulty reading the score while monitoring the children, I could move easier from either side of the lab to check on their progress. Nicki played very well, so I asked her and Penelope to play the melody together while I continued helping Oliver. Penelope could play the piano next to Nicki. I noticed a sense of camaraderie was developing between them. Meanwhile, Maria had perfected the song by herself. That day, she became my assistant. I asked her to help Oliver while I checked on Penelope who played the second phrase very well. Later, I asked Maria if Oliver knew the melody by now. Oliver's mother Penny, who was sitting next to him, confirmed he played competently. (Group C piano lab lesson, 8 December 2016, week 39)

6.1 Whole group teaching of diverse learners

As a counterpoise to the fourth chapter on group dynamics, the sixth chapter is about my sense of individual pupils, their needs, and experiences. It presents the findings of how *differentiation* was represented in my data and sheds light on the evolution of my practice through differentiating aural and reading tasks.

Piano lab involves various challenges of differentiation, particularly regarding diverse student ability within groups, in contrast to individual piano lessons. My whole group teaching approach of unison playing originated from teaching sightreading. Unison playing conserved time, but also fostered "the delights of playing in ensemble" (Salaman, 1997, p. 145). It made students maintain a steady pulse whilst playing together. Otherwise, solo-music-reading would not compel them to maintain steadiness unless a metronome was used. Playing with others is more compelling than playing with a metronome, predicated on the idea that pupils learn from peers and the teacher.

Although whole group sightreading may have suited homogeneous groups, it was problematic with diverse learners. I adopted a slow tempo for slower sight-readers, who could not keep the pace of faster sight-readers. On the other hand, faster sight-

readers did not enjoy having to plod along to accommodate slower sight-readers. As group lessons mostly proceed at the average student's pace (Pike, 2017), this was more problematic to do with wider ability groups. McPherson and Gabrielsson (2002) caution teachers to "expect children to vary widely in their progress toward fluent reading" (p. 112).

Whole group ear-playing also conserved time. Pupils learned melody and bass lines together with their peers, prior to practising by themselves. Then they reunited later for group performances. They also listened to and learned from the solo performances of peers. Teaching pupils how to play by ear presented me with old, new, and different differentiating challenges. The issue of slower ear-players struggling to find the notes remained. Faster ear-players pushed the tempo forward but also influenced others in a positive way. The variety of aural activities included learning to sing songs and bass lines, using sol-fa. Pupils listened to the *Jump Right In* soundtracks and converted singing to piano playing in a "synthesis of musicianship skills" (Pike, 2013, p. 103).

Progress in the piano lab occurred at different rates as each pupil advanced through the various steps and stages. I gave everyone the soundtracks to practise at home. Several pupils may not have used them resulting in increased differential problems in lessons. Pupils who practised progressed ahead of those who had not. As noted in Chapter 2, McCarthy (2017) defined *intentional differentiation* as differentiating via lesson planning (see 2.8.2). Each lesson plan in the *Jump Right In Teacher's Guide* alternated between tonal learning one week and rhythmic learning the next*,* which helped me teach aural tasks incrementally. The first half of a *Jump Right In* soundtrack contained the melody while the second half comprised the bass line, as mentioned earlier. The feedback I received from some parents and pupils indicated I was trying to do too much. Activities from the *Jump Right In* lesson plans were too many to fit into half-hour lessons.

> Thoughtfully crafted lessons are a thing of beauty, until they are marred by the arrival of students. Once learners are involved, those crafted lessons reveal stress fractures and gaps, which if not addressed appropriately, the lesson will crumble into so many useless activities. (McCarthy, 2017, p. 24)

Gradually, the songs and soundtracks became more familiar to use within the confines of half-hour lessons, as I adapted the *Jump Right In* approach for my

context. I decreased my dependency on the *Jump Right In* lesson plans and used them more flexibly and less in the way they were prescribed, until I stopped needing them altogether. In due course, I allocated half of the lessons to ear-playing and the other half to sightreading.

I found it difficult to resist what had become my deeply ingrained use of whole group teaching and considered how I could use it less (Smith, 2014). As I forged ahead with improving pupils' aural skills, and my own, I discovered other ways of improving differentiation. I studied ways of differentiating through reading literature, reflecting on my field notes, writing, identifying and solving recurring problems. I used whole group work for activities such as singing and playing together. Thereafter, I calculated how best to meet each pupil's individual needs through individualised tasks and co-operative pair or trio work. I became a more versatile aural-led teacher, while my students became more aurally oriented musicians.

6.2 Differentiation in playing by ear

6.2.1 Overlapping processes of an aural approach

The processes of ear-playing, memorising, rote learning, and imitating are distinct but also inextricably intertwined. According to Comeau (2012), the literature is vague about defining the process involved in learning to play by ear. McPherson (2005, p. 10) defined ear-playing as "reproducing a pre-existing piece of music that was learned aurally without the aid of notation." He defined playing from memory as "providing a faithful reproduction of a pre-existing piece of music that was learned from notation but performed without notation" (pp. 9–10). Memorising "involves performing a piece that has been memorized as a result of repeated rehearsal of the notation" (McPherson & Gabrielsson, 2002, p. 100).

Glenn (1999) connects rote teaching to memorising. She explains the benefit of rote teaching seems to rest on "the information processing model of memory" (p. 2). Information initially infiltrates "the sensory register where it is lost unless attended to." It passes on to "working memory" where new information is stored and "mentally processed," although it has restricted capability and "short duration (5 to 10 seconds)." It proceeds "from working memory into long-term memory" via procedures

including "rehearsal, organization, and elaboration. If individuals rehearse skills long enough they eventually acquire automaticity" (p. 3). Contrary to memorising music learned *by reading*, rote learning relies on memorising music learned *by repetitive ear-playing* and imitating teacher demonstrations until it becomes automatic (Musco, 2010). McPherson and Gabrielsson (2002) note learning to play by ear involves learning by rote, copying the teacher, and reconstructing familiar music already internalised through repeated listening and singing. Comeau (2012, p. 15) points out that rote learning is "much closer to imitation than to playing by ear." Whiteside (1969, p. 158) argues beginner pianists require a long time learning by rote to "enable the ears to register tone more easily." Knerr (2006, p. 317) suggests beginner pianists require "auditory stimulation" for learning melodies by ear and by rote. They can then "hear inwardly without the teacher playing first" in a brief space of time. She also maintains rote learning helps both ear-playing and technical coordination without having to manage music reading.

Vygotsky believed that children's strengths of imitation are substantial and empower them to avail of interacting with peers and adults (Barrs, 2017).

> In contrast [to animals], development based on collaboration and imitation is the source of all the specifically human characteristics of consciousness that develop in the child. Development based on instruction is a fundamental fact. Therefore, a central feature for the psychological study of instruction is the analysis of the child's potential to raise himself to a higher intellectual level of development through collaboration, to move from what he has to what he does not have through imitation. (Vygotsky, 1987, p. 210)

When overseen by adults, children can do much more with their imitative powers, and their ability to interact with others via prompting, questioning, and cooperating (Chaiklin, 2003; Vygotsky, 2017). They can even surpass their own capabilities (Barrs, 2017).

> The difference between the level at which it solves a problem under guidance, with the help of adults, and the level at which it acts on its own defines the zone of proximate development … What the child can do today with the help of adults, it will be able to carry out tomorrow on its own. In this way the zone of proximate development will help us to define tomorrow's achievements and the dynamics of the child's development, taking into account not only what it has already mastered, but also its process of growth. (Vygotsky, 2017, p. 366)

For Vygotsky, *imitation* assists children's understanding, development, and autonomy. Children rely heavily on rote learning for observing patterns. According to

Cathcart (2013), they enjoy discovering patterns, especially using the piano's patterned black-and-white keys. Learning patterns by rote merges ear-playing with visualising patterns on the keyboard. I began using the *Piano Safari* tutor book in studio lessons during my research because it uses many patterned memorable rote pieces that make learning easier for beginners.

6.2.2 Ability constructed in the piano lab

My interactions, different with different pupils and groups, are not merely responses to existing differences. They are part of how different types of ability are constructed in the piano lab that relate to several factors (Kress et al., 2005). *Pupil ability* is partially constructed through social interaction and "the cultural resources that students bring into the classroom with them" (p. 84). *Aural ability* is produced through the teacher-pupil-led interacting with one another. It includes dialogic exchanges, performing in front of the group, observing, and imitating the teacher. As part of my research, I interacted with pupils, and they reciprocated by interacting with me and their peers.

Ability is also constructed multiculturally, which helps to validate diverse cultures. The *Jump Right In Instrumental Series* comprises many soundtracks of diverse folk songs and melodies across different centuries, genres, and cultures. Grunow et al. (1999) point out the disparity between "being exposed to multicultural music and learning to develop multicultural musicianship" (p. 18). The priority of the *Jump Right In* series is to train students to play any music genre, tonality, and metre, from across the world. Then they "become comfortable when performing types of music that are representative of both indigenous and world cultures" (p. 19). Children construct ability multiculturally by learning to play by ear different music genres with their distinctive indigenous rhythms from around the world. In the process of experiencing a wide range of music genres, they become more openminded toward other cultures and music, besides the classics they learn in their studio lessons. It helps participants to acknowledge, appreciate and validate worldwide music and cultures represented in the school's population. Using a multicultural song book is only part of the picture of diversity. World and folk music are long-established oral traditions of music outside of classical music. People succeed in playing music aurally in world music contexts. Small (1996) identifies various differences in what learners gain from

indigenous music. Music is part of everyday communal life in most non-European cultures. Listeners take part while the performer-composer provides the music. The process of composing music is prioritised rather than "the finished product" of a concert performance (p. 50).

Over the course of the project, participants represented different cultures (Asian, Czech, Irish, and Polish). They brought their mix of oral challenges, ethnic interests, and influences on piano lab learning. For example, as an amateur musician, Isabella's father, Richard, noted:

> RICHARD: Irish people are more musical, but in our culture, people have it drilled into them they must work hard, and children must study and practise diligently.
>
> TEACHER: She finds improvisation more challenging.
>
> RICHARD: That's because of our cultural background, which relies a lot on rules and regulations. Isabella finds it difficult to create her own music. (12 June 2017)

As mentioned earlier (see 5.7), Richard implied that Isabella's progress was because of her disciplined practice. His belief that the Irish people, with their strong aural Irish traditional music heritage throughout the country, are more musical than in his culture. Improvisation is part of Irish traditional music but alien to his own. Perhaps he played his guitar in Irish bands with Irish musicians and found improvising challenging, hence he identified with his daughter. Isabella excelled initially in all musical skills except for improvisation. She became more proficient with time (see 6.4.4). Students who participate in Irish traditional music usually find playing by ear easier than those coming from the rigid approach toward notation of the classical tradition.

Music's power to express emotions affects children (Campbell, 2002). Its impact is usually "affective rather than intellectual, with the widest range of benefits accruing to those who actively participate in making music" (Hallam, 2010, p. 792). Cognitive overload may rob children of the joy of piano playing. Hallam suggests educators should develop syllabi that prioritise lesson enjoyment (Hallam, 2010). Playing by ear involves different cognitive skills to those required for learning to read music or technique.

All students differ and require different approaches to progress. Certain students' technical ability required extra support for fingering or learning how to play on the

black keys. I observed how their musical abilities progressed as they got older. Initially, it took a while for me to understand pupils' capability, and whether certain pupils had disabilities like dyslexia, which parents might not reveal or be aware of. Differentiation of diverse learners was the most troublesome issue in the piano lab. Pike (2017) insists that piano teachers should make sure that students are "grouped appropriately, according to level" (p. 46). A misplaced student "either in a group that is below or above his or her level of keyboard or musical competency" may cause the student, peers, and teacher to become frustrated. Misplaced students ought to be transferred to a suitable group. As discussed in Section 4.2, this was unattainable for my research of four groups spread over three years and it might not be desirable.

6.2.3 Rote teaching and learning

I hardly used rote learning prior to the project because of my concern that pupils would become overly dependent on imitating me and resist reading music. Conferences, webinars, reading literature, and using the *Piano Safari* tutor book converted me to change my mind about learning by rote. It became more appealing and another way to vary lessons:

> All pupils came to Henry's piano. I demonstrated on his fingers, using him as a guinea pig, pressing on his fingers so he could get the feel of which notes to play. Then I returned to the teacher's piano so they could listen to me playing the last trickier phrase of *Go Tell Aunt Rhody*. Once they could sing the ending, they learned to play it by rote, watching me demonstrate and then imitating me. (Teacher's reflective diary, Group A, 12 November 2015, week 7)

Having learned the ending of *Go Tell Aunt Rhody* by singing it in sol-fa, I demonstrated how to play it, all the while singing it in sol-fa, as discovery learning took place (Pike, 2013). Then I showed each pupil which notes to play on their own pianos. Several pupils imitated me more effectively than others. I added tactile learning to rote learning by playing on top of Henry's hands, so he would get the feel of which fingers to move. This was unnecessary for Aiden, who quickly learned by imitating. The art of pedagogy is formed from "a study of the people we teach, of how they learn, and under what circumstances they learn best" (Chronister, 2000a, p. 9). It puzzled me to know whether pupils were learning by rote and memorisation more than listening and anticipating the tones and rhythms. How my students learn ear-

playing is both a pedagogic and research problem and a puzzle both for me as teacher and researcher.

> The elusiveness of learning: we may recognise evidence of learning happening (or, to introduce another aspect to the conundrum, having happened), but we cannot trace the thread of learning back to its source (Yandell, 2014, p. 136).

6.3 Cacophony of beginners practising

The cacophony of jarring, discordant pianos was an acute problem for groups busily practising ear-playing (Salaman, 1997). They found it hard to listen to themselves learning the songs by ear, over the dissonance of everyone else practising. I also found it difficult to listen to individual children. We strained to hear our own playing. For example, when I wanted to check if Conor could play *Go Tell Aunt Rhody*, I had to ask everyone else to stop playing:

> CONOR tries to copy the teacher but after a bar hesitates and looks quizzically at her
>
> TEACHER demonstrates again: Just wait [make the left-hand wait] there. And then, that's it, *m, rd*. No just stay there, *m, rd*. Let's try again from [demonstrates]
>
> TEACHER to the rest of the group: Let's just listen to Conor first …
>
> TEACHER sings: try it again, that's when you needed to go *doh …*
>
> TEACHER to the rest of the group: Alright, all of you try it (Group B, 12 November 2015, week 7)

Eventually, pupils silently fingered the notes or reduced their volume while I helped each one:

> Bianca and Isabella could play the song, so I asked them to finger it while I checked on Conor … I felt it was wasting the other pupils' time to only have them finger it, so I let them practise as they wished. Conor soon stopped practising … To keep them occupied while I listened to individuals, I asked them to finger the song as if playing on a dummy keyboard, which was not fun for them. I had to ask them to stop playing and listen to Conor because I could not hear him playing while they were playing. Making them wait for certain students to catch up was also tiresome for them and they became fidgety. Soon, they stopped practising. Rather than silently fingering while I helped Jill and Conor, I thought it best to allow all students to practise. Then everyone would be busy playing, and less likely to become bored despite the cacophony (Video observations, 12 November 2015, week 7).

Despite my inherent reluctance to change, the time had come to use the headphones. Finally, I made more of an effort to use the tool, as otherwise I would not have known if it helped when it could have been part of the solution I was

searching for. Piano lab teachers stored the *Jump Right In* student books and wired headphones in a secure cupboard. Initially, I inserted the headphone jacks into each digital piano. Once pupils learned how to use them, I placed them on a table for pupils to collect and set up. If they arrived early, they wore the headphones and practised while I set up the room. When I finished demonstrating on the teacher's piano or a pupil's piano with the group gathered around, they returned to their own pianos, and used the headphones to practise what they had observed. Meanwhile, I checked on them individually. The headphones made it easier for them to listen to themselves and for me to listen to them. A description of the first time I used them follows:

> When the rest of the group arrived, I organised Grace and Fiona to use the new headphones so that they could read the notation of tonal patterns. Previously, they had learned to sing and play the tonal patterns by ear. When I checked on them later, I found Fiona at a loss because of her insecurity with using sol-fa. The usefulness of the headphones did not seem obvious at first, as Fiona's struggle with sol-fa preoccupied me. I explored peer-learning by asking Grace to help her, but this also was inappropriate because Fiona's difficulties were too complicated for Grace to resolve. (Group A, 7 April 2016, week 21)

Grace arrived earlier than everyone else. I helped her to revise the tonal patterns by ear using sol-fa and reading the score. When the rest of the group arrived, I gave the headphones to Grace and Fiona, so they could practise reading the tonal patterns at their own pace. Meanwhile, I helped Eleanor, Henry, and Aiden revise *Twinkle Twinkle* and learn the new song *Patsy Ory Ory Aye*. This took most of the lesson. Grace had more help and time to understand how to read the tonal patterns than Fiona, who found sol-fa difficult, as discussed in Chapter 4. Although Fiona was familiar with singing the tonal patterns in sol-fa, it did not help her read them. Most students at the music school are well-versed in singing sol-fa. Fiona may have entered the school later than the others, or she may have missed applied musicianship classes. Although she was a quick learner, she was less interested in playing piano than other students. The headphones hid from me her struggle with reading notation until I came to her aid. It made me realise I needed to check on pupils more regularly while they used the headphones. The headphones did not seem to contribute any benefits for this group during the following week, either. It facilitated two separate tasks but did not solve the problem of differentiating between Fiona's reading of notation, and having to spend more time with strugglers:

While Henry, Aiden, and Eleanor reviewed certain other songs, I urged Grace and Fiona to continue reading the tonal pattern notation using the headphones. I did not involve them substantially thereafter and merely requested they play at the end of the lesson. I could have checked on them sooner and interacted with them while the threesome practised their songs. Despite the recent usage of the headphones, I did not assist Fiona and Grace. I assumed they did not require further help. I spent a large portion of time with Henry and Eleanor and less time with Aiden, Grace, and Fiona. How could I take advantage of the headphones and assist all pupils? I hoped to devote equal time to each student rather than spending too long with anyone. I wondered if it was possible with groups of such wide differences in skill, commitment, and motivation? (Video notes, Group A, 14 April 2016, week 22)

Pupils used the headphones again the following week:

At first, I got all five students to use the headphones. The new equipment excited and surprised the children in that they could hear themselves, but no one else could hear what they were doing. The headphones worked well, as I got to check Fiona's sol-fa one-on-one with her. (Group A, 21 April 2016, week 23)

Henry, Aiden, and Eleanor enjoyed using the headphones. At last, Fiona could hear me speak. I could hear her playing above the group's distant euphony of pianos and give her my full attention without feeling guilty anymore as she read the tonal patterns. The headphones did not seem to benefit Group A during the first fortnight of using them. This was because of only giving them to Fiona and Grace (not the whole group), as well as the group's wide differences, with Henry and Eleanor taking longer to learn songs, and Fiona's insecurity using sol-fa. By contrast, Group B were at similar levels. They learned quickly and independently of one another, which made it easier to differentiate, even during the first week of using the headphones. Simply pairing the two boys and two girls together facilitated their understanding of the task so that they were confident they could achieve it. The headphones allowed both pairs to practise different tasks more than in Group A:

I got the idea to give both Conor and Liam the headphones, as Liam had already learned the new song *Ory, Ory, Aye* in the right hand, and Conor almost had it. Jill and Isabella and the two boys began singing the bass first, so the boys could put it hands together, while the girls learned the right hand and quickly caught up to the boys … Isabella and Liam missed the previous lesson … As Liam also studies individual piano with me and the other three do not, I had helped him catch up learning the new song during his piano lesson. I began teaching the group the bass line because pupils find it more difficult than the melody. This enabled the boys to practise it hands together while I taught Isabella the melody, as she quickly picked it up … Dividing the group into boys versus girls was an easy way to differentiate, which enabled peer learning and self-study, as students became more independent. (Group B, 7 April 2016, week 21)

At first, the silence was startling. None of us needed to strain anymore to hear individuals over the cacophony of clashing sounds of pianos. Wearing headphones allowed pupils to be engrossed and confident in their learning and practise alone at their own pace (Appell, 1993) in a "peaceful working atmosphere" (Salaman, 1997, p. 145). No one got flustered with peers practising. They could play piano privately without disturbing anyone. For end of year feedback regarding what pupils valued most, nearly everyone chose "playing" and "using the headphones."

"Change is a process not an event" (Fullan, 2001, p. 40). To some extent, using headphones in the piano lab was the breakthrough that I needed to help me differentiate. It launched an ongoing process of alleviating differentiation problems that helped change my practice over the following weeks, months, and years. The headphones tool did not single-handedly solve *all* my problems with differentiation. It helped with scaffolding for strugglers, while allowing others to continue with their learning. I could test varying combinations of group work, mix them up into pairs and trios, and reunite them as a quintet. Indeed, the headphones resource significantly impacted upon my teaching style, as it transformed from a whole group based approach to more flexible and varied combinations of groups (Rogers, 1997). Taking the necessary steps to increase my use of the headphones gave new impetus to my developing practice. Otherwise, I would not have known that the headphones could improve meeting the needs of diverse learners. I could administer a differentiated programme because the headphones gave us alternatives and provided students with differentiated tasks working alone, without being distracted.

6.4 Differences

6.4.1 Groups A and B comparisons

Piano lab participants in the first year of the project comprised two groups, with five beginner pianists in each group. Group A comprised pupils of widely differing levels of ability, commitment, and diligence: Aiden, Eleanor, Fiona, Grace, and Henry. Group B pupils comprised similar ability who made quick progress: Bianca, Conor, Isabella, Jill, and Liam. Liam joined Group B four months later than the others. Within the first weeks of launching the project, I noticed several dissimilarities among and

between the groups. I became curious to understand the reasons. I wondered if it was because of their age, how I treated them, or if it concerned alternative reasons:

> TEACHER to Group A: we're now going to learn a new song called *Go Tell Aunt Rhody.* Let's listen to how to sing it first …
>
> Henry sings *out of* tune
>
> TEACHER: okay [starts singing:] *Go Tell* ... you've got to go much higher *Go Tell* …
>
> Henry sings *in* tune
>
> TEACHER: [emphasises certain words and high notes to be sung in tune …] That's it. You can't just sing any old note, Henry … we've got to get you in tune because then you can play it. Ready and … [pupils sing:] *Go tell* ... [to the group:] Now the hardest thing for beginners is to wait because young children don't like waiting … Isn't that right, Grace? They want to go to the next-note and then the next-note. But with this one in the bass, you've got to wait, otherwise it will not be in time with the right hand. (**Group A**, 12 November 2015, week 7)

> TEACHER to Group B: now we are going to learn a new song: *Go tell Aunt Rhody* and that's on tracks 26 and 27. Listen first. Sing it …
>
> Jill puts her hand up
>
> TEACHER: Yeah?
>
> JILL: I already know that song and I did it
>
> TEACHER: Good girl. Now sing the bass with the soundtrack … Let's sing it with the melody first. You just sing it. Don't play [teacher plays the melody and sings it with the group]. Again, ready and ... Group B sings it beautifully. (**Group B**, 12 November 2015, week 7)

Jill was Group B's questioner (Pike, 2017), whereas Group A pupils did not ask many questions (see 4.4). As mentioned in Chapter 5, Henry sang the song out of tune, whereas Group B pupils sang it accurately. Singing out of tune meant Henry would struggle to play it by ear or remember how to play it when he went home (Welch, 1985). Addressing this with one pupil reduced time with the others as "extra efforts have to be made in favour of the weaker students" (Kelchtermans, 1996, p. 317). I noticed in due course that I could devote equal time to Group A when Henry missed a lesson, which rarely happened and was not an issue for Group B:

> As Henry was absent, I was spending equal time with the rest of the group … How could this continue when he returned? (Group A, 5 May 2016, week 25)

Group A required more help than Group B, thus I interacted differently with them. Group A pupils were inclined to rush and cut longer notes short. Besides helping Henry sing in tune, I had to support the group through more repetitions and singing the two-note rhythm of the bass line. This was not the case with Group B:

> Everyone manages reading the song *Major Triple* without difficulty except Liam, who had to repeat it three or four times. The students played all the patterns quickly. After Liam played competently, I commented to the other pupils: "he is doing really well, since he started much later than everyone else." (Group B, 28 April 2016, week 24)

I lowered my expectations of Group A while becoming more impressed and enthusiastic with Group B, who seemed to have conformed more closely to what I expected. This was despite Liam joining Group B later than the others and needing more help to catch up. I reflected:

> How did my interaction with the two groups, and my beliefs about individuals and groups, as either possessing high or low potential, affect their progress? Did I have unrealistic expectations of the first group? Was I inclined to encourage and praise those I expected more of, and accept less from those of whom I had low expectations (Brophy & Good, 1970, p. 365)? Was I contributing to discriminatory classroom behaviour with my feedback to individual students and spending more time demonstrating to the weaker students, allowing competent students to work things out for themselves? Had this discouraged initiative in some, whilst conveying higher expectations in others (p. 374)? (Groups A & B, 22 October 2015, week 5)

Brophy and Good suggest teachers may be oblivious to subtle differences in their expectations of students and the sort of feedback they give them. Teachers may be prone to praise and have higher expectations of a highly capable group, while expecting and praising a lower ability group to a lesser degree. They may interpret pupils' progress and failures that reflect positively or negatively on pupils' ability, which in turn affects their self-efficacy (Bandura, 1994). High-status people, like teachers, influence children's beliefs about their capability (Webb, 2009). I used to feel guilty about spending more time with some pupils in Group A than others:

> I spent more time with Henry than the others (12 November 2015, week 7).

> It's very easy to spend more time with Henry and Eleanor than with other students because they seem to need the most support … I give Grace little time because she is managing the best. However, I notice her going off track with minor details, such as changing the bass unnecessarily. (Group A, 4 February 2016, week 16)

I tried to negotiate between harmonious voices and rival concerns (Britzman, 2003; Hoyle & John, 1995). My teacher's voice, prioritised being responsible for pupils

achieving their goals. Meanwhile, my inner voice, half-regretted the time I wasted on those who may not have practised. Second, I envisaged pupils voicing their struggles to progress at home, independent of my help. Third, I imagined parents' voicing their expectation that sufficient time would be allocated to their child.

Aiden's mother, Alice, seemed more enthusiastic about the course in the early days. As the year progressed when his absences became more frequent, I wondered if spending less time with him caused both mother and son to lose interest in the project. Hoyle and John (1995) note parents hope teachers take an even-handed approach to teaching every student, yet devote extra time to their own child. Teachers are obligated to be impartial, despite the challenge of accomplishing this in practice. Consequently, "there is no alternative to reliance on the exercise of responsibility and judgement by teachers" (p. 119). Alice might have wanted to challenge the "equity norm" by protesting her son's "individual rights" (Kelchtermans, 1996, p. 317). She never complained to me, however, that this was the case.

The issue that did not seem to improve during the first year was differentiation, although my practice had improved. I noticed my difficulties with differentiation from my writing, reading, reviewing, and reflecting on my field notes. Gradually, I tried to accept differences within groups and not to expect similar standards from them. Group B steadily improved. I responded by stretching them as much as I could. Sometimes I wondered if I overstretched them, which was easy to do because they were positive in their response to the tasks and looked forward to lessons. "Having the ability to impact students affirms the value" I could add (Chua, 2018, p. 90), which encouraged me. My response reflected their progress with the activities and reinforced my teaching beliefs.

> Happiness emerges for teachers in those moments when they are fully engaged in meaningful activities with students, when they sense what they are doing represents their best performance, their fullest expression of the goodness of teaching (Bullough & Pinnegar, 2009, p. 245).

Group B's ease with the tasks made it easier for them to feel confident in piano lab. Sometimes the slower pace of Group A pupils made me doubt if I was helping them. Although most pupils produced home videos every month during the first two years of the project, I wished I knew more about the kind of practice they did at home. It was more challenging to allocate homework closer to the overall group's ability with

Group A because of their wider ability levels. They were, however, used to mixed ability in primary school. I tried to get the right balance with the homework I gave the groups, as some students like Isabella craved and thrived on it, whereas others such as Conor did not. As time went on, I tried to be realistic about my expectations. If students had not practised, they had to practise in lessons rather than questioning them about the absence of any progress. Pupils who had practised advanced to the next task.

In the beginning, I tried to help Group A keep up with Group B. Several pupils, however, had to relearn and repeat the same tasks, as they forgot what they had learned the previous week. A mere half-hour lesson every week rendered their progress less attainable. As the year progressed, I accepted their limitations, and spent more time with two pupils, despite my regret at spending less time with the other three. I tried to respond to this group dynamic by helping Fiona, Grace, and Aiden advance independently of me and adjusting tasks to best suit them. Yet, I felt I had insufficiently challenged them. I sought to stretch them gently, but then wondered if I had underestimated their abilities and neglected to highlight their strengths. Focusing on their musical struggles could have become a self-fulfilling prophecy and unfairly conditioned them to believe in limits that may not have been there. Chua (2018) warns that observing and engaging with students might emphasise specific prior positive or negative insights, which "might result in fixed mindsets about student ability" (p 95). This could cause a chain reaction with students' losing confidence, which might lead to teachers feeling insecure about students and under-challenge them, augmenting students' loss of confidence.

I sometimes became perplexed by having to negotiate a host of concurrent problems, namely pupils singing out of tune, getting confused with sol-fa, ear-playing, reading notation and tonal patterns, a lack of hand-eye coordination and fine motor skills. As previously noted, Fiona, in particular, struggled with sol-fa, while Eleanor had reading difficulties, but both discovered how to play songs by ear. Henry often sang out of tune and resisted playing the bass line, but was competent playing melodies and enjoyed engaging with the group. I preferred an equitable distribution of teacher-time with each pupil. Teaching pupils of similar music reading and aural levels, which happened to be the case with Group B, is comparable to streaming students by ability.

6.4.2 Assigning different tasks for studio piano students

Some participants were my own pupils. They came to both my piano lab lessons *and* individual studio piano lessons, which compounded differentiation difficulties. They included Fiona and Grace (Group A), Bianca and Liam (Group B), and Maria (Group C), and all five pupils of Group D – Qarla, Rachel, Sophia, Tanya, and Vincent – were my own pupils.

During the first two years of the project, I used the *Jump Right In* approach in both piano lab and my one-to-one piano lessons. This meant my own piano students learned the *Jump Right In* songs twice, while the other participants learned them for the first time in piano lab. Focusing on helping those who required the most help made differentiating tasks more challenging during the first year. Rather than merely allocating tasks to keep advanced students busy and avert boredom, I grappled with stretching their learning based on their needs (McCarthy, 2017). I devised other ways to differentiate learning while helping strugglers to catch up. Sometimes I chose an advanced pupil to be my teaching assistant who demonstrated the newest song for the others. Advanced pupils also learned extra *Jump Right In* enrichment songs. Unlike the other songs, these comprised melodies without bass lines, which proved to be too easy for Fiona and Grace. I wrote:

> I wish there was a better way that I could help my own piano students, Grace, and Fiona, during piano lab. They play the *Jump Right In* songs better than the others, as they already encountered the same songs in their piano lessons … there is now such a wide difference between them and the others (Group A, 10 March 2016, week 20).

I thought it would be better for my own pupils' sake to keep learning to play by ear in piano lessons, separate from learning to play by ear in the piano lab. As time went by, I used the *Jump Right In* approach for piano lab. I also began trying out the new *Piano Safari* tutor book, as stated earlier, with my new cohort of studio piano pupils. It supports beginners learning to play piano by ear and notation-reading. It's fun ways of developing basic gestures for an effective piano technique involves easy to learn rote pieces based on strongly patterned black-and-white keys. Supplementary flashcards and pre-stave notation prevent cognitive overload to limit the amount of information that beginners read. The *Piano Safari* flashcards enable pupils to feel confident and ease them into the reading process (Fisher & Knerr, 2008). As a result, my own piano students were no longer ahead of their piano lab peers. They

learned the *Jump Right In* songs for the first time in the piano lab and the *Piano Safari* tutor book in their piano lessons.

6.4.3 Differentiation of boys and girls

The headphones allowed me to differentiate between girls and boys within Group B. This was less achievable with Group A. Group B boys Conor and Liam did not have issues with singing in tune, which Henry had. Besides, Conor and Liam were at more advanced levels of learning to play by ear than Aiden and Henry in Group A. Aiden found playing by ear easier than Henry, hence I rarely paired them together. I usually matched Aiden with Grace and Fiona while I helped Henry and Eleanor.

Young children are prone to forget what they learned, thus at the end of sessions, I reminded them to revise tasks. By the end of the first year, however, Alice and Emily said their sons Aiden and Henry did not give feedback about lessons:

> ALICE: the girls are maybe different than the boys. The feedback from the class is not coming, you know. And he'll sit at the piano … Because in a group environment, they're slow to actually say … if they are faltering a bit or that … they need something explained to them. (Parent Group A focus group interview, 12 May 2016, week 26)

Hearing for the first time Alice's stereotyping of boys as being less willing to take ownership for their learning made me wonder why boys would not give feedback to parents. It seemed to ring true of other boys, for example Conor also gave little feedback to his parents. His mother Lisa referred to the family's confusion about understanding emailed homework:

> LISA: Like with the last email, for example, I was trying to work out [laughs] what to do and Conor didn't understand it. I didn't understand it. Jack [father] didn't understand, so. Well actually Jack eventually did understand, so hmm, but it was a bit late then, by the time we had worked out what to do, we didn't have time to do it. (Parent Group B focus group interview, 8 December 2016, week 39)

It perplexed me that Conor did not give his parents feedback on what he learned in piano lab. Also, I wondered about his confusion with the emailed homework. He seemed to find the tasks easy in lessons. His peers understood the emailed homework. I questioned the disparity between him finding the homework excessive when other students were content with it. Perhaps it clashed with his other hobbies.

Alice stereotyped boys as finding homework more challenging to understand than girls. But Liam in Group B seemed to enjoy giving feedback to his father. If Liam did not understand something, his father asked me on his behalf. Besides, giving feedback to a parent might seem unimportant in a boy's world. Noticeable differences have been found between boys and girls in music learning. Green (1997) highlights "gender identities" experienced by girls and boys that are "re-enacted daily in the life of the music classroom as a dynamic, microcosmic version of the wider society" (p. 229). Gendered music identity passes down through generations to current society, including the music classroom. Girls are depicted as straightforward and compliant, thus less demanding to teach; boys as "disengaged, easily distracted and prone to quitting". However, boys who become interested in music might persevere more effortlessly than girls (Deloughry, 2014, p. 163; Green, 2003). A tricky balancing act for teachers to recognise is how dependent we are on categories such as gender and stereotypes, which shape every experience somewhat. There are countless other variables, but we constantly need to endeavour to recognise when these might become limiting.

6.4.4 Differentiating content for improvisers

> Sounds on the piano can represent movement such as running, walking, skipping … Sounds can suggest such things as trains passing, corn popping, lions roaring. Children love telling stories. Teaching them to tell stories with musical sounds is the beginning of their one day fully appreciating the more subtle sounds of a Beethoven sonata. When we begin by representing a child's world in sound, we begin where the child is … We have begun to develop a musician, not just a piano player. (Chronister, 2005a, p. 50)

Piano Safari helped me to teach my one-to-one beginners in studio lessons to sing the lyrics of songs about animals, as well as learn technique and improvise. Azzara's outline of the teaching procedures for improvising based on tonal patterns helped me get started with teaching improvisation in the piano lab (Azzara, 1992). I became more familiar and confident with teaching aural skills by differentiating content and varying activities, making it fun, spontaneous, and creative. I also relied on the *Jump Right In* Teacher's Guide, including soundtracks of three-note and two-note tonal patterns. Once pupils comprehend tonal and rhythm patterns and have learnt how to integrate and arrange them syntactically, they assimilate tonality and metre (Azzara, 2002a, p. 180). Aural understanding of music originates from "grouping notes into

patterns," then phrases "into the context of the overall tonal and rhythmic form of the music" (p. 182). Sometimes I made games of improvising broken chords based on major tonic (*d, m, s*), and dominant (*s, t, r, f*) chordal patterns. Pupils responded by rearranging and improvising them differently to mine. It familiarised the children with tonal patterns, prepared them for improvisation, and varied the lesson. They became familiar with singing and playing the tonal patterns in lessons and at home. Afterward, the time arrived for them to use these patterns for improvising their own patterns:

> We went over tonal patterns in G first, then transposed them to C, all the time singing them in sol-fa … I asked the children what we do when we change key, to which they all replied "transpose." This led nicely to improvisation. I chose a tonal pattern and asked each one to rearrange and link it into another pattern. Adding rhythms followed, and use of repetition, which led them all to improvise … whichever pattern they chose. It didn't come naturally to Grace. She seemed to be concerned with the notes and missed the rhythm. Eleanor did a good job of using repetition and enjoyed improvising. Aiden was good at it, too. Henry was ok. (Group A, 11 February 2016, week 17)

I demonstrated how improvising meant choosing and rearranging one's own patterns differently. Pupils had to learn to trust themselves to improvise by taking the first step away from imitating me. When we prepare students to encounter success in one activity, and they ascribe their progress to particular strategies, they will have confidence for future related tasks (Pike, 2017, p. 164).

At the outset, Grace found improvising difficult to grasp. She hesitated with anticipating suitable notes, but over time she improved, as per the fourth example below. As a musician and teacher, I noticed Aiden was an all-rounder, naturally adept at aural and reading skills. He had a good ear, no qualms with exploring improvisation and just needed a little help to get started. Soon he improvised autonomously. Perhaps we can consider a combination of factors as having contributed to his versatility, such as his early Suzuki violin learning, having older siblings who played musical instruments, and a mother who nurtured his musical endeavours. When children have supportive families, they gain the confidence to explore the unknown, such as improvisation (Hallam & Creech, 2010; Davidson et al., 1996; McPherson, 2009). Eleanor enjoyed being creative, re-using her own ideas, taking risks (Azzara, 2002a), going with the flow of whatever random notes she played, and making the most of them. Reading notation was difficult for her,

whereas musical doodling interested her. "For notation to be meaningful, children must first have had creative musical experiences apart from notation" (Azzara, 2002b, p. 19).

I also used the *Piano Safari* 12-Bar Blues improvisation activity later in the project. It involved placing coloured starry stickers on the notes of the Blues Scale C E♭ F F♯ G B♭ of five digital pianos. I showed pupils how they could improvise, using only these starred notes. They copied me. Everyone improvising together on the harmonious blue notes sounded groovy. It was fun and inspiring as they became more confident improvisers.

In another lesson, Group C pupils took their turn improvising solo while I repeated playing the accompaniment and their mothers watched:

> TEACHER [to mothers]: if I were you, I would take a photo of those notes so that when you come home, they can learn … 12-bar blues … [to pupils]: I'll call you in solos now … the two bars [accompaniment] are intro in the beginning and then you come in. I'm going to start with Nicki.
>
> Nicki improvises very well
>
> TEACHER: It's coming to the end, so … finish with C. Give her a clap … Lovely Nicki!
>
> Penelope improvises, choosing to take her time playing single blue notes slowly …
>
> TEACHER: finishing on C. Good girl. Give her a clap. Good girl Penelope … get faster with those notes. When you see it [the photo of the blue notes] at home, learn them really fast and you'll be able to sound very fancy … [to the group:] You could practise it silently while he's [Oliver] playing … put your volumes down and do it…
>
> Oliver uses crotchet-beat blue notes similar to Penelope, but with more variety.
>
> TEACHER: Coming to the end. Good boy …
>
> Maria improvises with her own distinct rhythm, which she develops from the first bar's rhythm …
>
> TEACHER: Very good for a fast speed. (Group C, 11 May 2017, week 55)

Group C's mothers, Qiana, Olympia, and Penny took photos and videos of their child's piano with the stickers on the blue notes, for practising at home. Nicki improvised first, as I thought she might be more confident improvising than the others, since she enjoyed composing her own music at home. She began

confidently, as if used to it. Gliding skilfully through her "musical utterances" (Campbell, 2002, p. 65), she varied her ascending and descending melodic lines and rhythms, even using dotted rhythms. Oliver improvised using crotchets in his ascending and descending melody. Penelope took her time playing each note, deliberately using minims quietly. She was the least dexterous out of the three groups. Trying to keep her tiny fingers on the narrower black keys and managing a mixture of three white and black keys was more of a struggle for her. I kept in mind that she was the youngest beginner. A good rule of thumb to remember was "children can usually focus for the same number of minutes as their age" (Pike, 2017, p. 161).

The starred blue notes made it easier for the children to become confident at improvising, especially for Penelope and Oliver. Maria used two repeated crotchets and a minim for each bar. She changed the rhythm toward the end with seven repetitions of two notes. I wondered what had inspired her choice of rhythm that made it suit this blues style. She was content with just using C F E♭ F♯ F and omitted G or B♭. As she was my piano pupil, she had learned and practised improvising in her piano lessons and at home, hence had more opportunities to practise improvising than the others.

Group B also improvised together on the Blues Scale while I accompanied them. Afterwards, each one improvised solo:

> TEACHER: we're starting with Grace … This is the 2-bar intro ...
>
> Grace improvises quite well
>
> TEACHER: coming to the end, coming to C, finish on C. Give her a clap!
>
> Pupils clapped enthusiastically and cheerfully
>
> TEACHER: Okay, Bianca. Now I'm getting faster ... Play louder ...
>
> Bianca improvises really well, with a variety of rhythms
>
> TEACHER: finishing. Give her a clap. Good girl Bianca!
>
> Liam got better as he went along
>
> TEACHER: finishing. And you could do [teacher demonstrates] a descending glissando

Pupils giggle

JILL leans over to the teacher's piano: I can't do that! ... How do you do it?

TEACHER: On the back of your nails. Alright so let's. Alright. Hello? Now, stop at that now! It's Isabella's turn now and we're doing it faster, 2-bars introduction

Isabella improvises at a quick tempo … quite well …

Pupils practise glissandos

TEACHER: with your nails, not flesh, yeah

GRACE: [demonstrates her downward glissando] Like this?

TEACHER: That's right!

JILL: Oh, I did it! (Group B, 11 May 2017, week 55)

Grace began improvising her melody with nuanced phrasing, rising crotchets, pleasant leaps prior to descending, fading into a jazzy dotted rhythm, and echoing the accompaniment of repeated notes. This was a profound transformation from her initial attempt a year earlier (in the first example). Bianca needed some prompting to project her sound as she started improvising softly. We strained to hear her. Soon she became more confident, improvising using continuous crotchets at a brisk tempo and variety of rhythms, some of which ended phrases with suitable longer notes. Her melodic line constantly changed, interspersing with repeated higher notes as she re-used material and ideas. Her flair for improvising was a pleasant surprise. It was in stark contrast to her difficulty with reading notation. I wondered about the kinds of music-making Grace and Bianca created at home, outside of the curricular criteria, how I and the music school could value it more. Their playing reminded me of Azzara's comment (2014): "you should sound like you are not improvising." Both girls sounded like experienced improvisers. Yet they were not. Or were they?

The faster tempo I initiated took Liam off guard. Thus, he played not on, but behind the beat. He caught up by the second phrase and chose skipping rather than stepping blue notes, ending phrases on E♭ and C, which sounded good. I suggested he could finish with a glissando which fascinated the group, although I had to rein them in for Isabella's turn. She responded to my *Allegro* faster tempo, improvising quick staccato crotchets. Occasionally, she imitated the accompaniment's repeated notes, shaped by mini waves via rising *crescendo* and falling *decrescendo* phrasings

that eventually included all the blue scale notes. Those students who flourished at improvising amazed me. I regretted my profession did not allocate more time to it, especially as beginner pianists enjoy it so much. Perhaps including assessment of improvisation might motivate practitioners to take it more seriously and become part of the curriculum.

6.4.5 Learning a Christmas song

A fresh group of beginners began the project during the second year of the project. Group C included Maria, Nicki, Oliver, and Penelope. Their mothers also attended piano lab lessons. Maria's mother Nadia only attended for a month. Penelope's mother, Qiana, attended for one year. Nicki and Oliver's mothers, Olympia, and Penny, attended for two years. Differentiation was problematic for this group, so I often had to teach them one by one. Penelope started a month later than the others and needed help to catch up. Oliver also required more of my time, which meant less time for Maria and Nicki.

Differences became even more apparent when I paused teaching the tiered *Jump Right In* songs, in order to teach *Walking in the Air,* leading up to Christmas. I assumed pupils could manage the instrumental solo of descending patterns within five-note positions. They required considerable support to play this Christmas song owing to fingering and technical issues that conflicted with prioritising ear-playing, as compared to *Jump Right In's* carefully sequenced songs. It left me doubting whether the song was suitable:

> TEACHER [demonstrates the second phrase from Penelope's piano]: Up to high C. You must play B♭. So, when you're playing your C, go in close to B♭. That's very good. And now ... *du du* ... sing it as well, Penelope.
>
> Penelope sings while playing it
>
> TEACHER: Good girl, *du du* ... That's it ... Practise away there … [demonstrates for Nicki:] *sfsfm* ... can you see ... my short thumb can get on to that note?
>
> Nicki plays it slowly and carefully
>
> TEACHER: And then you jump down to *l d m*. Yes, just go nice and slow … practise that
>
> [demonstrates the second verse for Oliver]

Oliver imitates it well but then chooses the wrong notes

TEACHER: you must sing it

Oliver chooses wrong notes

TEACHER [demonstrates]: no, G

Oliver imitates better (Group C, 1 December 2016, week 38)

Penelope needed help to alternate repeated black and white keys. I showed her how to move her hand further in between the keys instead of playing them at the keys' edges. The song was new to Oliver because he had missed two consecutive lessons. He was reluctant to sing, thus struggled to play by ear. I helped him by demonstrating fingering, managing black keys, white note scalic passages, and how to use his thumb. He started off well but struggled to copy me. Catching up proved too difficult for him. Nicki managed it well when I suggested fingerings. She kept up as best she could when we rehearsed performing the song, whereas Penelope and Oliver could not, especially at a faster tempo.

Why did Nicki progress while Penelope and Oliver struggled? She attended lessons every week faithfully. Oliver often missed lessons. Nicki also had other siblings studying music. Penelope and Oliver did not. The habit of practice might have been more prevalent in Nicki's home. Penelope was the oldest in her family, and Oliver's much older siblings never took music lessons. Penelope and Oliver did not have examples of a home-practice routine like Nicki. This suggests a range of contextual variables that are likely to exert a profound shaping influence on students' orientations to and expectations of their development as musicians.

> Music is accessible to children beyond the classroom … so that many learn music as it is provided to them by their parents, siblings, and extended family members and by the social and religious communities of their family's involvement … As their more sophisticated needs are addressed at ever higher stages of cognitive processing within the school curriculum, children continue to be enculturated by parents, teachers, siblings, members of their extended families, friends, and the media. (Campbell, 2002, p. 65)

Some children are more musically enculturated than others, depending on the different musical encounters that develop within families, schools and communities (Campbell, 2002). Olympia guided Nicki's musical learning based on her longer life experience of supporting her older children who learned musical instruments. Qiana

and Penny did not have this wealth of experience. Qiana had her au pair to help with Penelope's piano practice. Penny had only herself to help Oliver.

It would have been preferable not to expect Oliver to learn the complete song, since he missed so many lessons. The first verse would have sufficed. I could have given him another Christmas song to learn, while the others finished learning *Walking in the Air*. I chose this song because I thought families might appreciate hearing a familiar, popular song leading up to Christmas at home. Hearing repetitive practice of *Walking in the Air* might annoy parents less than *Go Tell Aunt Rhody*. Given their aural familiarity with the Christmas song, they did not need to listen to it repeatedly compared to an unfamiliar song. According to Frewen (2010), being aurally familiar "may be particularly advantageous when learning to perform more difficult or longer melodies" (p. 300). Nicki's mother Olympia made an important observation:

> OLYMPIA: They don't remember the notes, she finds it hard to try use her ear to try to remember the notes. (1 December 2016, week 38)

Pupils struggled with remembering how the song was supposed to sound, which is an integral part of learning to play by ear. Remembering the song brings it from the short-term to the long-term memory via repetitive practice. Their ear-playing improved through learning songs by rote, imitating, and memorising. But for the time constraint, Penelope, Oliver, and Nicki might have found it easier and preferable had I spent more time helping them to imitate me.

Maria had already learned the *Jump Right In* songs with me in her piano lessons. She was competent working up the tempo and practising on her own with the headphones. She sometimes pushed a song's tempo forward while playing with the others as a group. This pressurised them to play faster until I asked her to take a slower tempo for the other pupils' sake:

> They played the right hand of the song *Major Duple* but were not playing together. I required them to sing it to neutral tones *du du* while playing it using their right hand, which worked for the left hand as well. At first, Maria rushed ahead, so I challenged her to keep steady and she improved significantly. (6 October 2016, week 31)

It was important that those learning the song for the first time played it at a manageable speed. It was also inspiring for them to hear Maria play the song correctly, and to listen to her steadiness at both slow and quick speeds. After two months, Maria could learn songs with only a little help from me. Her mother Nadia

planned her practice time and kept her motivated. I asked Nadia for Maria's feedback about being more advanced than the others:

> RESEARCHER: is she [Maria] saying "it's too easy being in the group" or she doesn't mind that she's ahead a bit?
>
> NADIA: No, I think she likes it. (Group C focus group interview of parents, 8 December 2016, week 39)

Absentees also made a difference. Oliver missed six lessons during the year, Maria missed five, Penelope missed two. Nicki did not miss any for two years (2016–2018) and only one lesson during the third year (2018–19):

> Penny said Oliver missed the previous lesson, therefore he found the song challenging during the week. I gave Maria the notation for *Patsy Ory Ory Aye* to see how she would get on with reading it, but then ran out of time to check on her. It would be easier if they could all learn at the same time. Absences make this challenging and pupils end up invariably at different stages of learning the songs. (Group C, 23 March 2017, week 50)

Oliver revised *Twinkle* in F major and in D♭ major to catch up because of being absent. Maria progressed to reading *Patsy Ory Ory Aye*, but because I had to help Oliver a great deal, I forgot to check on her. Despite this, I was glad the headphones enabled her to progress by herself. Differential problems with pupils missing lessons meant retention of what they had learned was difficult and progress limited. Students coped with missing lessons differently. Maria remembered more than Oliver, even though they both missed five to six lessons. She practised more than he did, and her mother could offer her more support than his mother could offer him.

6.4.6 Mothers' differing support in lessons

Three participating mothers of Group C pupils, Qiana, Penny, and Olympia, did not come from musical backgrounds. Nevertheless, they featured notably in piano lab and provided insightful accounts about pupils' developing musicianship. While I was helping the children, these mothers supported differentiation in lessons by directing their children's focus to the task at hand and prompting them to request help when needed. Qiana believed she had to attend piano lab, otherwise Penelope would not have known what to do at home. In the early days, Qiana used to notate the letter-names of the melody and bass lines. Later, she also used to video-record the songs

on her phone, which she found more helpful than the emailed homework, as mentioned in Subsection 5.5.3. She re-played previous recordings of my demonstrations of songs in lessons and at home, which helped Penelope. Sometimes Qiana relayed to me how Penelope was unwilling to practise. She found reading notation and remembering certain phrases difficult.

Penny was eager for Oliver to get the correct starting notes therefore, she also regularly recorded my demonstrations. She learned the lyrics of the songs and sang to help everyone else. Singing also helped her recognise when Oliver floundered with a bass line or started a song in the wrong key. Although she found it difficult to get him to practise, she was his consistent encourager and defended him with explanations for falling behind owing to his regular absences. She usually forewarned me, as soon as they arrived, that he had only practised a little.

Olympia attended lessons because Nicki was so young and needed help in lessons and at home. She was conscientious about her pedagogical role and communicated to me about the challenges Nicki faced with slow practise, remembering songs, matching bass lines with melody lines, her preference for teacher-evaluation and dislike of peer-evaluation. Often, Olympia requested more clarity, for example with the starting notes of songs, or the purpose for off-the-stave notation reading cards. Her questioning helped me empathise with the different families. While I helped individual pupils, I often heard her in the background reasoning with Nicki about the benefits of tasks and how they could help her when she went home.

Olympia appreciated learning songs by ear so Nicki would develop an ability to master her favourite songs from the radio by ear. Although she supported progressing Nicki's reading skills, she viewed playing by ear as a fun way of learning and sometimes conveyed this to the group. She alerted me when Nicki resisted figuring out songs at home and preferred to learn them in the lessons. Despite Olympia's shyness with singing solo, she was the most appreciative parent of sol-fa because of her experience using it when singing in choirs. She specifically requested emailed songs in sol-fa to help Nicki at home. Despite my doubts about my choice of Christmas song, Olympia was positive about it, because of its popularity for children, and it motivated Nicki. Olympia spoke encouragingly about piano lab lessons being well organised, especially when the group accomplished many tasks.

Qiana and Penny found video recording in the piano lab the most useful way to help their children make progress with playing by ear. They intentionally came prepared to record lessons. Olympia did not use video. Her older children studied music, thus she understood the importance of home practice. Qiana and Penny did not have older children who had taken music lessons. My anxieties about the mothers' differences and expectations dissipated with time, as I got to know them and listened to their questions and difficulties. Knowing that Qiana and Penny found videoing useful, and that Olympia would communicate when something confused her, helped put my differentiation anxieties at ease.

6.5 Concluding remarks

My endeavours to stretch pupils' learning stemmed from how I was taught piano. Having to learn challenging pieces and perform them in public stretched me to the utmost. To attain high performance standards, I had to be disciplined and practise long hours as a classical musician. Although I did not expect my pupils to practise like I had, I needed to be realistic about their ambitions. I did not want to under-challenge them either and assigned pieces I hoped would enable them to reach their potential. I believed in pushing the boundaries as a positive way to determine what pupils were capable of. My approach that challenged students also emerged from my PGCE secondary teacher training, my experiences teaching in secondary schools, and my observations of other secondary school teachers, who advised me to have activities planned to engage all students. As a researcher, I became more amenable to providing easier tasks within pupils' ability and more accepting of their commitment levels. My developing teacher's identity of caring for pupils' opportunity to gain aural skills superseded my concern that my lack of aural upbringing was an impediment.

My assumption that homogeneous groups (Groups B and D) progress quicker than heterogeneous groups (Groups A & C) is rooted in my experience of teaching group sightreading in the piano lab. I paired faster sight-readers together, and slower sight-readers together. I often found sight-readers progressed when the groups were streamed than when they were not. As a result, I extricated those who had sightreading difficulties from groups and taught them in specialist groups with those who had similar reading difficulties. They preferred the slower pace of not having to

keep up with faster sight-readers. Another strand to this is Pike's (2017, p. 46) argument to group students "appropriately, according to level" assumes that a student's 'level' is a single, unitary entity, which might be seen as emanating from a narrow conception of musicianship. A student can have more confidence and make more progress in one aspect of musicianship than another, as exemplified by Isabella, for example, who was less competent and confident at improvising than other ear-playing skills.

My concern about having to devote equal time to all pupils arose from my experience teaching individual piano students. I assumed I should extend similar attention to the small group scenario by allocating equal time to pupils without favouritism or discrimination. The problem of allocating equal time to helping each student became more acute when parents were present in the piano lab. I assumed they might feel aggrieved if I allocated less time to their child and therefore find the project not worthwhile. However, I learned these parents did not expect me to spend equal amounts of time with each pupil. They were content that I enabled their child to figure things out for themselves and get my help when needed. I valued parents' contribution as they helped their children's progress through supportive behaviours. It helped my teacher-leadership and teacher-efficacy.

My research with diverse learners acquiring aural skills motivated me to try other ways to differentiate for sightreading groups. As a researcher (and a teacher), I considered the different ways of differentiating in small groups. I became more aware of being sensitive to the joys and insecurities of students playing in front of and with others. Diverse ranges of ability become more noticeable when students sightread or play by ear alongside each other in group lessons. It is more difficult to notice by observing them alone and consecutively in studio lessons. Group diversity caused me to appreciate the group learning context and the important role of piano lab teachers in broadening students' musicianship. Sometimes it seemed like my role was becoming more like a facilitator (Kress et al., 2005) with pupils interacting and assisting one another as team members. One of the affordances of the account of pupils is that it is a way of thinking about pupils in all their specificity. Although it may not offer a total defence against variables such as stereotypes, it offers at least a way of always trying to notice the specific, complex, and nuanced ways individuals

interact with such categories, which change over time and can be changed by decisions a teacher makes.

CHAPTER 7: SUMMARY AND CONCLUSIONS

7.1 Introduction

The final chapter compares my prior pedagogy with my changed practice. It pulls together the things I have learned from conducting the study, as discussed in the findings chapters. The distinctive contribution that an autoethnographic study makes is not in terms of easily implementable outcomes. Its careful account of the challenges and complexities of pedagogy is relevant not only to instrumental music teachers, but to other teachers more generally. The issues about pupil grouping, parent relationships, and differentiation have repercussions for any teacher in almost any context. It opens up to scrutiny hitherto unresearched area of education practice in Ireland. At the outset, the chapter addresses the research questions and foregrounds key themes.

7.1.1 Addressing the research questions

The first research question was *how has my recursive participation of bringing playing by ear to the centre of my practice changed me to be a different teacher, with different values*? I deviated from the traditional piano pedagogical approach and centred my practice on aural teaching and learning of beginner pianists. Concurrently, I charted my developing piano lab practice through my autoethnographical personal reflections. It resulted in a complicated, layered account about what changed my practice, and how I addressed difficulties associated with teaching how to play by ear. My prior experience as a piano teacher made it difficult for me to resist being set in my ways, as laid out in Chapter 1. It took a catalyst, principally my doctoral studies, to change me as a teacher. My values changed as I grew to value my teaching more than my performing skills (Purves et al., 2005). I learned from my community of practice of group interviews with the children and parents to be mindful of their preferences, perspectives, and concerns.

The second research question was *how has what occurred in the piano lab during the project shifted my thoughts and challenged my assumptions about musicianship?* My developing conceptualisation of musicianship changed because of the research that emerged over its lifespan. My thoughts on musicianship shifted. I used to think musicianship depended on the musical genre that musicians aligned

themselves to. This changed as I prioritised broadening musicianship skills for all learners and as the research suggested that musicianship is context dependent, based on what individuals decide musicianship means to them. Context dependent musicianship gives pupils different aspirational avenues while learning to play by ear and read music.

The third research question was ***what are the challenges and benefits involved in negotiating pupils' and parents' aspirations and expectations when using an aural approach***? My practice became more effective because of engaging in dialogic relationships with parents. It involved listening to pupils' and their parents' ideas about the challenges and benefits of an aural approach and using their feedback to shape my future practice. Working under the scrutiny of pupils' parents helped make my practice more robust and transparent and made me confident of working with them. As they became more involved, parents discovered their own ways of supporting their child, which is part of the contribution I make.

7.2 Reflections on the findings

7.2.1 Taking a risk with aural pedagogy

My pedagogical struggle as a teacher within the music conservatoire system meant being restricted by the graded examination criteria that promotes progressing through the grades but excludes the potentially important skill of playing by ear. What informs this difficulty is the assumption that piano playing is primarily about sightreading. I responded to the problem by taking a chance of implementing an aural intervention in the conservatoire context that would benefit children's musicianship, which I could explore through research. It was not the result of being an advocate of this pedagogy at the time or a requirement by my employers.

Living by my values and ideas about what being a teacher should look like, I created a niche in the piano lab (Kelchtermans & Vandenberghe, 1996, p. 13). I did not encounter group piano learning or playing by ear as a child. Later in life, I learnt to teach ear-playing by breaking it down into bite-size chunks, which was necessary for teaching groups of beginners. My prior pianistic experience helped me to value the

skill of ear-playing, which I lacked as a youngster. The deficit incentivised me to break the mould of prioritising notation-reading through an aural intervention.

I had to make a series of adjustments to adapt the *Jump Right In* intervention to the context I was working in. I assumed I could use its sample lesson plans and time frame developed for longer and more frequent lessons per week. However, I found I could not fit all the activities within the confines of weekly half-hour lessons. Adapting the approach to my context proved tricky as the time limit led me to cram too much into lessons, resulting in less time for creativity such as improvisation. I realised I had to be realistic about the limits of half-hour lessons and consider pupils' and parents' feedback. Therefore, I prioritised the *Jump Right In* repertoire of songs for developing long-term aural skills. For example, during the first two months of the research, I introduced Gordon's Coordination and Rhythm Readiness Activities (Grunow et al., 1999), but abandoned them by week 14 to prioritise songs. The physical exercises involved the children learning rhythmic movements to macro and micro beats. I expected it to be a welcome relief from sitting at the piano, but some pupils tired of it. I preferred using the *Jump Right In* Gordon rhythm syllables but dropped them in the second year, to conserve time. Even though they sounded cooler, I stuck with the Kodály rhythm syllables as pupils already learned them in their applied musicianship classes.

I presumed transposing songs to easier keys would be easy and beginners would cope. Unfortunately, transposing proved confusing for some pupils and their parents. The early rote songs comprised repeated notes, which proved challenging for beginner pianists. They needed the required number of repeats counted out. Gradually, I chose ten useful songs and corresponding soundtracks per year and focused on them. Rote learning became another way to vary lessons as the children automatically took advantage of the piano's patterned black-and-white keys for learning to play by rote. I overcame my doubts about rote learning undoing notation reading by having students read the songs soon after they learned them by rote or by ear.

7.2.2 Constructing ability in beginners

My journey of reflection and change led to insights about ability. Nuanced analysis of moments helped me notice how ability is a construction that can be shifted by noticing the taken-for-granted, changing classroom activities, contexts, relationships, my own paradigms, and anxieties. I learned to recognise the breadth of different starting points and purposes of musicianship. Learning to sing in tune, play by ear, and improvise revealed diverse unexpected outcomes, which awakened my growing realisations about beginners' constructing aural ability. For example, those who flourished at improvising surprised me. I regretted allocating sporadic time to it rather than regular improvising sessions, especially as beginner pianists enjoy it so much. Having learnt "many melodies and bass lines by ear" children can start to predict "harmonic progressions" and improvise their own music (Azzara, 2002b, p. 21). "Learning a large and varied repertoire by ear is fundamental to improvisation."

I expected that introducing playing by ear in the piano lab amidst the Graded examination system might be overly challenging, given it is not considered as important as sightreading. Constructing music reading ability through reading-readiness, e.g., being able to determine ascending and descending tones, involved different cognitive skills to aural learning. Exams pressured me to prioritise sightreading according to the assessed criteria, even though I preferred to devote more time to improvising.

Working with younger children allowed me to observe this age group's distinctive strengths and difficulties when learning to play by ear and read music. They thrived in group settings, being close to their early childhood years of learning through play and creativity (Azzara, 2002b), more than older children. My values changed to appreciate the non-curricular creative music-making they played at home. They also constructed team-ability as they interacted musically and socially with others and performed before their peers. To overcome their difficulties, they learned to voice questions, answer for each other, and develop an ability to help others, themselves, and the teacher.

7.2.3 The complexity of differentiation

The complexity of differentiation partly involves thinking about how I used to teach the different piano lab groups and how I developed my pedagogy each year. I am also always (becoming) a different teacher. What happens in lessons can be seen as a product of complex interacting between me, my pedagogy, and the differently constituted groups in which I worked. The significance of the account involves the different affordances provided to different users.

Working with groups at similar stages of learning is easier to manage. As with sightreading, differentiating is problematic for ear-playing with mixed ability groups. A range of contextual variables exert a profound shaping influence on students' orientation to and expectations of their development as musicians. Some students are more musically enculturated than others because of their families, schools, and communities. Others might not use the soundtracks at home, whereas some might use them a lot. Certain pupils progress and enjoy being ahead of others, while one or two might be unsure of how to use sol-fa or find singing in tune difficult. Some students push the tempo too quickly for everyone else. Others forget what they learned the previous week, or struggle with reading music. Tardiness or regular absences also cause considerable differentiating problems. Those who faithfully attend lessons throughout the year usually make good progress, while those who often miss lessons cannot retain what they previously learn. This hampers the group's progress and the teacher's efforts.

I used to assume my delivery of lessons determined how a group related to each other, and difficulties arose because I had not prepared properly, or pupils did not practise. Feelings of guilt for not allocating equal time to every pupil originated from my experience of teaching one-to-one piano lessons. It is questionable, however, that professional obligations are best realised through allocating equal time – my responsibility to each pupil does not necessarily transfer to that requirement. I responded by sometimes splitting up the group while helping those who needed more support. Other times I left strugglers to figure things out for themselves and accepted the limits of weekly half-hour lessons. I became attentive to different learners simultaneously and managed a wider age range of children. I lowered my expectations of some groups, accepted their limitations, differences, and various

levels of commitment. Spending more time with strugglers, I expected dissimilar things from them, and became more amenable to providing easier tasks.

The traditional rows environment is *teacher*-centred and promotes whole group instruction, which is pupils' least favourite way of learning. I found it difficult to withstand being entrenched in whole group teaching, so I limited it for group singing and group playing and alternated it with co-operative work in pairs. I began using headphones to ease the differentiation problems and cacophony of pupils practising. The headphones helped me differentiate learning for those in most need while the other group members practised and enjoyed their private learning without being distracted.

Teaching children involves a complicated process that is only partially influenced by teachers' pedagogies, with unpredictable results despite teachers' best efforts (Kelchtermans, 1996). However, teachers are not mere victims of group dynamics, since they influence and contribute to it. We observe it, at least in part, as a product of teachers' pedagogic decisions and interventions. The research made me more attentive to pupils influencing one another within groups. I perceived group members influencing each other. However, I had not explicitly identified group dynamics as part of what I must deal with. Group dynamics influences pupils' progress in a profound and complex way. It impacts every aspect of teaching and reflects the specific pedagogic challenges of the environment.

The forces that modify group dynamics involve a multitude of complex scenarios that can surface at a moment's notice. Group composition affects group interaction (Fern, 2001). The dynamics of groups might comprise a comedian, a leader who might have social status attributed to them by others, and a questioner who might be perceived as more outspoken than quieter individuals. When extraverted individuals are absent, others take the lead. Some group members become inspired by high achievers; others need competitiveness to motivate them. Many pupils learn to collaborate socially and musically, enjoy piano practising and socialising. They chat outside of lessons and regard piano lab as a social music activity. Shy students or newcomers might feel somewhat aloof or withdrawn. Having preconceived ideas about piano lab being like a masterclass might seem like a nerve-racking ordeal that exposes pupils' sightreading and ear-playing difficulties to listeners. I learned to

empathise with different vulnerabilities and foster a piano lab group community that encourages trying things out, making mistakes, overcoming perfectionist tendencies and nervousness in a safe setting. Over time, self-esteem increases, anxiety subsides, and pupils become more comfortable demonstrating songs for each other. Their increased effort to learn with others helps peers to share how they calculate correct answers, which influences their development and affects the teacher's pedagogy.

7.2.4 Roles supporting instrumental teachers

7.2.4.1 The role of the music school and curriculum

Group piano learning of aural and music reading could become an important part of a music school's curriculum for optimising the young pianist's music studies. The music school and the curriculum can play vital roles in broadening piano playing skills and valuing the musical interests of all students. A music school's piano lab can promote a broad range of piano playing skills and experiences. The traditional curriculum facilitates graded examination repertoire. Widening it based on research, would support teachers as curriculum makers. Beginner pianists bring with them creative music-making which can be nurtured toward acquiring improvisation and keyboards skills as early as possible. The research led me to develop, structure, and design an aural training curriculum for basic keyboard skills. An adapted format of the *Jump Right In* intervention accommodates the first three years of the young pianist's study in the piano lab.

Currently, there is little information about the piano lab in the music school's Information Booklet. Descriptive information about its purpose and role would aid staff, parents, and pupils in understanding and valuing the piano lab facility. A piano lab brochure could inform students and their parents about teacher expectations, and what students might expect. It could include a list of soundtracks, the names of tutor books for sightreading, and explain usage of headphones. In addition, a Piano Lab Syllabus on ear-playing and sightreading would guide and help educators develop their coursework and prescribe what they need to teach. It would enable studio piano teachers to be more aware of what their students learn in the piano lab, besides sightreading.

I linked piano lab lessons with applied musicianship classes by capitalising on its premise of singing, lesson content, and managing difficulties in my music educational world. A more integrative curriculum could link music theory learning with instrumental lessons, rather than being separate areas of learning. Also, team teaching and engaging with teachers from different departments would enable music educators teaching the same students to collaborate, and share literature and experiences (Harris, 2007).

Traditional rows prevent teachers from seeing pupils' hands at a glance. When I reconfigured a circular layout of the piano lab, its affordances made it more flexible for users. Pupils could anticipate their turn quicker which saved time. I could monitor them more easily. Modifying the piano lab niche to suit users' needs made teaching, learning, and moving around easier. Being able to teach a group of five children from one piano with the children's petiteness and their desire for closeness helped me observe their hands and helped them to copy each other and me, which also saved time. Reconfiguring the music school's lab could facilitate and encourage parents' attendance with their child. For *student*-centred learning, a T-shaped piano lab with space and chairs for parents to sit next to their child would be helpful.

7.2.4.2 The role of parents

Relationships with families unfold new layers as teachers learn more about families and their values and assumptions, pupils' interests, and purposes. Certain parents hope to overcome barriers to their own inclusion and understand music for their children's sake. Others prefer to develop their child's autonomy. Not all children require their parents' support in lessons or at home. Parents who play piano via the traditional notation-based approach might distrust an aural approach and feel unsure or confused about their role. It might be imperative for teachers to encourage parents whose children need their support in lessons to attend with them. Contrarily, some children might become dependent on their parent's support in lessons and bewildered when the parent stops attending. Such scenarios suggest flexibility is required to accommodate a range of scenarios, rather than one-size-fits-all.

The role of parents as pedagogues involves different levels of parental support. Including them as pedagogical partners in the education of their children poses challenges, e.g., vulnerability of teachers (Finn, 2019). Parents might expect the

homework to be an educational lesson summary. Clarifying its purpose conveys the teacher's expectations, prods parents to support home practice, and reiterates learning as a reminder for pupils. Families have different capacities to understand emailed homework. Certain families find it easy to decode and appreciate it. Some pupils are reluctant to sing and unsure of how to use the soundtracks at home, thus, forget the songs, find the homework excessive and difficult to understand. Singing in tune relates more closely to ear-playing than to reading music, therefore, a lack of singing may inhibit the acquisition of aural skills.

The responsiveness between two adults in the parent-professional-child group enables them to cooperate and manage the challenges (Henry, 1996). Identifying ways to improve "the proximity of adults to children via genuine pedagogical roles for parents" is important for teachers "to improve learning outcomes for all students" (Finn, 2019, p. 889). The proximity of adults to children enables co-mingling of teacher and parent pedagogies and exchanges that help children adapt to tasks. Parents who are guided in lessons render a sense of community that can lead to a more personalised approach that tailors to individual pupils' needs. Parents may sense when their child needs repeated playing or to deconstruct phrases. They can direct their child's focus to the task at hand and request help when needed. They can also relay home practising difficulties to the teacher and pinpoint their child's key difficulties. Understanding parent contributions could support a wider appreciation of their potential to contribute pedagogically. It could reduce barriers and enable them to engage and understand how learning happens in and out of a music school (Finn, 2019).

Being open to parents' feedback and getting to know the parents' strengths and resourcefulness helps teachers' practice. Teacher training and collaborating with parents in their pedagogical roles could help parents to become more confident in contributing to their child's learning. Teachers can empower parents to use their prior musical experiences and knowledge and not underestimate parents' potential contribution to improve their child's learning outcomes. Knowing parents can support their child in lessons when confused may ease teachers' differentiating problems.

7.2.4.3 The role of the music teacher-researcher

A strength of my approach as a research methodology and teaching approach is it acknowledges that human beings and interactions are never totally knowable. Although this may be uncomfortable for teachers, it focuses on the process of getting to know and understand better, mulling over various possibilities as an interesting and ongoing puzzle. It means working things out through a series of actions, interactions, and reflections. It results in gaining a sense of feeling increasingly confident to work with feeling perplexed rather than avoiding it and learning to let go of anxieties about students' progress. The construction of teacher identity, as a musician and researcher, is valuable because it addresses the difficult (and necessarily partial and unfinished) process of puzzling about problems that present themselves in lessons. Methods or tools towards curricular learning for sightreading, ear-playing, and improvisation need always to be negotiated within the bigger questions of the purpose of the subject, the context, and the teacher's and pupils' assumptions and feelings about it.

The value of particular research processes supports the development of teacher learning. Discussions with pupils and parents and the accounts of classroom episodes challenge the notion that knowledge is outside the knower. The accounts reveal the massive potential for shifting pedagogical relationships through strategies informed by research. Research gets us to ask our pupils about their experiences of learning routinely, as part of our teaching. It enables us to treat them as valued research participants and experts in the field of their own learning. The centrality of classroom relationships plays out in the moments, activities, and palpable shifts that take place. Such relationships involve benefiting from the camaraderie and enjoyment of the closeness of groups, and physically guiding their fingers on the keys as they learn through imitation. It entails being open-minded and available to teach the music that inspires children. Besides, they enjoy focus group interviews and being taken seriously. Focus group interviewing causes teacher-researchers to pay attention to pupils' and parents' preferences, perspectives and concerns. Recording their difficulties, joys, and musical acts in the piano lab allows them to voice their ideas and thoughts individually and as a group. Teaching and research feed each other in an ongoing way (Bassey, 1992).

This study has taken notice of the need for teacher training in group piano lessons, and collaborating with students and their families. There is a systemic problem in the training of instrumental teachers, especially in the teaching of aural skills. Teachers' biographies and training may be inhibitory factors because of their history as professional performers. According to Cathcart's UK Piano Survey (2013), piano teachers have little classroom teacher training. They regard mixed abilities as too difficult to address individual learners' needs and doubt learners have "a fair chance to get to grips with the piano" (p. 155). Individual tuition "completely dominated teaching with group lessons rarely given." Those who taught groups focused more on "teaching musicianship rather than pianism" (p. 175). Pike (2017) notes an increase in group piano classes in the US for undergraduates to develop their keyboard skills. Even though "most of us did not participate in group piano as students, we have little precedent to draw upon" (pp. xiii; 1). Laitz (2003) argues college students are "entering the arena simply too late," and are hesitant to improvise, sing or play without notation (p. 136). Uszler (1992) suggests "realistic intern teaching experiences should include both individual and group instruction" (p. 589). Lancaster (1979; 1981) recommends teacher training courses in both piano pedagogy and group piano pedagogy programmes to support students in becoming competent musicians.

Woody (2020, p. 690) notes the "growing body of research that suggests that ear-playing deserves the consideration of all music performers and educators." According to Purves et al. (2005), most music teaching students are classically trained. Music faces considerable technological development, and is becoming more of an important part in people's daily lives (p. 41). Developing effectual teachers demands a much wider array of skills and experiences. Perkins (2013) also suggests conservatoires should "continue moving away from the narrow and specialist in favour of the broad and diverse" (p. 209). Likewise, Palmer and Baker (2021) affirm "there is now an increasing call for conservatoires to diversify to support twenty-first century portfolio music careers" (p. 181). For example, there is a lack of training undergraduate students to become piano lab teachers. Until "agency thinking and institutional hierarchies" change, "the formal training and professional accreditation of staff delivering the core conservatoire experience" will remain a difficult undertaking for those hoping to implement change (Palmer & Baker, 2021, p. 174).

7.3 Concluding remarks

7.3.1 Contributions to knowledge

While I did not begin from the advocacy position of ear-playing in music pedagogy being inherently, universally and unquestionably important, I was eager to explore it in my own practice. The value of my story as a teacher researching my classroom from week to week while diverging from the traditional approach in a music school is it relays changed practices. This acknowledges the situated, personalised nature of values in teaching and what each teacher believes is "musicianship." It adds to the scant body of knowledge of learning to play the piano from the perspective of an autoethnography. A personal account of my changed practice bringing ear-playing on a par with sightreading and exploring its effectiveness in a group setting represents a contribution to knowledge. Promoting ear-playing as a teacher and interviewing children and parents as part of my evolution as a researcher, helped me to value their differing aspirations and perspectives.

When parents were supportive of the methods I was introducing, the outcomes were more successful, and the communication with parents was more effective. This points to a need for a more holistic approach to learning when using aural methods. It could also be one reason for the primacy of notation in the past – the parameters and materials of the teaching and learning are more explicit for the teaching of notation than they are for ear-playing. Similarly, there seems to be a link between regular lesson attendance and success (as outlined in Chapter 6). Perhaps greater, more consistent teacher input is needed for aural methods. This has implications for practice in that there needs to be better usage of recordings and teacher videos of material covered, to keep the momentum going between attendances.

Koopman's study (2002) was limited to 20 elite "talented" learners and "educating genuinely musical pianists" (p. 270). My research involved verifying the progress of 20 *non-selected* children, most of whom came from non-musical backgrounds. The longer period of my study provides key insights for solving challenges such as differentiating group learning, e.g., using headphones. The importance of using an intervention such as *Jump Right In* with *sequenced* songs and soundtracks enables children to progress at their own pace in lessons and at home. Familiar songs that

increase incrementally result in more success, as opposed to Koopman's challenge "to devise a systematically progressive curriculum from a corpus of diverse songs" (p. 281).

Rather than viewing group lessons as subordinate to individual piano lessons, as in Koopman's study (p. 269), my study suggests that there is much "potential for musical growth" in a music school's piano lab. Group learning can potentially benefit learners in developing their ear-playing and sightreading skills in the piano lab. Children learn from the teacher and peers, as well as playing the piano alone in studio lessons. Koopman's study involved parents as the coach for practising at home and to familiarise their child with the music teacher and peers. My study figures parental involvement more noticeably in their pedagogic roles, and expectations, which adds to knowledge, literature, and the field.

Cathcart's study (2013) found most piano teachers preferred teaching individual rather than group piano lessons because of the problem of differentiation. My study confirms Cathcart's findings (2013) in relation to the benefits of combining group lessons for developing musicianship skills, adjunct to one-to-one lessons for developing pianistic skills.

Baker and Green's (2013) study, with 10–14-year-old students, recommended longitudinal research with younger children learning to play by ear and copying soundtracks. My research adds to their research in that my younger participants developed ear-playing annually over a longer period. It revealed how my sense of their progress shifted over the time that I was teaching them and how their development affected mine.

My research builds on Pike's research (2013) enabling potential guidance for group piano teaching. It suggests differentiating mixed abilities and attending to individual needs is attainable and beneficial in a group setting. It informs thinking about group piano lab lessons, which provides learners with more variety and a fuller experience of piano learning.

7.3.2 Limitations

The research is subject to several limitations. It examined responses from CSM participants in groups, as outlined in Chapter 3. It cannot therefore generalise to other contexts or a larger population of musicians. Other piano teaching contexts might differ from the CSM context. The themes of differentiation, group dynamics, and parental involvement are unique to my autoethnography and my sense of readiness and desire to change. Other themes might arise for other researchers. It would have also been useful to interview participants individually, including each mother and child, as in the pilot focus group interview when pupil-parent-teacher experienced this threesome relationship.

Rather than a broad survey of many participants, the study prioritised gaining in-depth knowledge about learning to play by ear with 20 beginner pianists, 19 parents, and eight piano teachers. By combining my research goals with my work, as the researcher of my own experiences, I had access to "insider meanings." I could immerse myself in the field and use my time efficiently with ease of access to data as the source from which to investigate (Anderson, 2006).

The study is limited in its extent to investigate group piano teaching from the perspective and experience of one piano teacher's practice. It is limited to the critiquing potential of a lone autoethnographic researcher, observing, and interpreting shared experiences and engaging with colleagues and participants in an educational setting where I worked. Nevertheless, I wanted to effect change. Although it may not change the piano teaching world, it adds to growing research in the area and provides a solid basis for a larger study. It has provided rich material for us to derive an understanding of group piano teaching and learning, and the complexities of the issues involved. It has also been valuable for studying the response of participants in learning ear-playing, which they would not have normally done.

7.3.3 Implications for practice, policy makers and educators

Beneficence not only benefits participants. It may involve trickle-down promises of the potential of research to inform practice in the future. The impact of the thesis may be wider than benefitting my own practice, i.e., it can improve the practices of other piano teachers and music teachers into the future. Perhaps the findings and theory developed may interest teacher trainers in Higher Education and those running continuing Professional Development Courses in, e.g., community music hubs and trainee music teachers. It might benefit those interested in developing music curricula and new pedagogies (educational policymakers and those writing curriculum materials), academics and researchers, sociologists of music education, and psychologists working in the field.

Music reading and aural based methods could be integrated in piano lab by allocating time to both skills. Teaching children how to play by ear as well as read music is optimal for capitalising on their creativity, which could potentially be an important part of a music school's curriculum for optimising the young pianist's music studies. More diverse methods used in the piano lab, such as emailed homework and a reflective and open approach to teaching that links with students' applied musicianship classes, might also be applied to notation-based activities in individual piano lessons. In many ways, the methods I employed went some way beyond "pure" aural methods, as well-rounded musicianship requires active input in all such areas.

An introductory course for parents, such as a parent pupil mentor programme or workshop, could act as a support mechanism. It might assist parents in understanding how they can support their child at home and in lessons. For example, such a course could explain emailed homework, musical abbreviations, and usage of singing and sol-fa. Asking parents for feedback at the beginning and end of the academic year via focus group interviews or an online survey might improve the learning experience for students and parents. It could enable parents to share their views and become more involved.

Effective professional staff development could boost piano teachers' confidence in using an aural intervention, reinforce our professional credibility, and negotiate pedagogical challenges. Indeed, I could convert what I have learnt and reflected on

over these years into a useful Continuing Professional Development course. Some members of the piano teaching workforce in Ireland might want to participate in an online or in-person day course.

The music school's piano lab teachers contend with developing practical musicianship skills within the confines of half-hour lessons. They might benefit from acquiring practical experience through a staff development course. Effective professional staff development in the piano lab could involve recording piano lab lessons to demonstrate how to organise ear-playing and sightreading activities, with students' consent. It could also include lesson plans, assigning and emailing aural and sightreading homework. It would require teaching how to connect with what pupils learn in applied musicianship classes, such as rhythm syllables, singing, sol-fa, letter-names, lyrics, as well as using tools, such as the *Jump Right In* soundtracks, MP4 files, and YouTube. Also potentially needed is training in improvisation. The Continuing Professional Development course could also be adapted to other interested music teachers, e.g., the CSM piano teachers, undergraduate and postgraduate piano students, local piano teachers in County Cork, and nationally with the other music institutes in the country. Some private piano teachers might wish to install group lessons (Cathcart, 2013), and set up a proper piano lab at home.

7.3.4 Remaining questions and suggested future research

> Teaching … requires a serious encounter with autobiography: Who are you? How did you come to take on your views and outlooks? What forces helped to shape you? What was it like for you to be ten? What have you made of yourself? Where are you heading? An encounter with these kinds of questions is critical to understanding teaching because teachers, whatever else they teach, teach themselves. Of all the knowledge teachers need to draw upon, self-knowledge is most important (and least attended to). (Ayers, 2010, p. 137)

The implications for future practice suggest autoethnography as a method that enables reflective accounts of what transpires in teachers' practice. Subsequently, the autoethnographic methodology could be useful for other researchers who wish to undertake fieldwork as teachers and practitioner-researchers. Future teachers or teachers who wish to expand their practice via research could collect data through ethnographic methods in their teaching practice. These could include focus group

interviews, writing fieldnotes of encounters, insights, impressions, challenges, and emotional responses for constructing autoethnographic text (Poulos, 2012). Adler et al. (2019) argue further research is required in to conducting focus groups with children, teenagers, and parents. It is also necessary to comprehend how they experience being involved, including "what was important to them, what they enjoyed, and what they would change" (p. 11). Autoethnography can help teachers record the challenges and mishaps (Dyson, 2007), and make sense of negotiating complex interactions with children, parents, and teenagers. Teachers can recognise and unravel power relations when interacting with children. By drawing on their own experiences meaningful to them, they can improve key areas of their practice to comprehend "societal phenomenon" (Wall, 2006). The method can booster self-confidence and be therapeutic for authors and readers (Poulos, 2012). As a method of enquiry and research-as-writing (Poulos, 2012), autoethnography might accommodate other topics, such as teacher training for aspirant piano lab teachers. Autoethnographers can relate their own experiences with those of participants and "move inquiry and knowledge further along" (Steiner, 2018, p. 148).

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Appendix A: Piano Teacher Information Leaflet

Introductory Piano Lab Project

Information for focus group interviews of piano teachers
Please will you help with my research?

My name is Gemma O'Herlihy, and I am a research student. This leaflet tells you about my research. I hope you find the leaflet useful, and I would be pleased to answer any questions you may have.

Why is this research being done?

The project will enquire into the challenges that piano teachers experience when teaching beginners, the difficulties of imparting sightreading and musicianship skills, and the skills they may have preferred to learn. It will develop a programme for the first two years of learning piano and capitalise on the benefits of creative and literacy music skills such as improvisation, playing by ear and sightreading.

Who will take part in the focus group interviews?

Participants will include piano teachers from various backgrounds and expertise in piano teaching.

What will happen during the research?

Participation in the research will involve taking part in a focus group interview lasting approximately 45 minutes. I will audio record the discussions.

What questions will be asked?

- What are the challenges that you, as a piano teacher, experience with teaching beginners and subsequent pupil dropout?
- What are the difficulties with teaching beginners sightreading and musicianship?
- What kind of pedagogical approach would respond to those challenges?
- Which skills would you have preferred to learn as a beginner?

What will happen if you take part in the research?

If you agree, I will audio record the sessions and type them up later. I am not looking for right or wrong answers, only for what everyone really thinks.

Could there be problems for you if you take part?

I hope you will enjoy the focus group interviews. Some people may not want to talk about some topics. If they want to stop talking, we will stop.

If you have any problems with the project, please contact me by email.

Will doing the research help you?

I hope you will enjoy helping me. The research will collect ideas for the future about helping children to learn ear-playing, improvise and sightread. The project will provide insight for piano teachers to impart keyboards skills to beginners.

Who will know that you have been in the research?

I will anonymise all participants, keep data in an encrypted file on a password-protected system, and destroy audio recordings of the focus group interviews as soon as I have transcribed them.

All participants are free to leave the focus group interview and stop being part of the research whenever they wish.

Do you have to take part?

You decide if you want to take part and, even if you agree, you can drop out at any time or not answer questions. You can indicate you agree to take part by signing the consent form.

Will you know about the research results?

I will inform you of the research by June 2018.

The project has been reviewed by the Faculty Research Ethics Committee

Thank you for reading this leaflet.

Institute of Education

Introductory Piano-lab Project

If you are happy to participate, please complete this consent form and return to Gemma O'Herlihy.

	Yes	No
I have read and understood the information leaflet about the research	☐	☐
I agree to take part in the focus group as outlined on the information sheet	☐	☐
I am happy for my discussion to be audio recorded	☐	☐
I understand that if any of my words are used in reports or presentations, they will not be attributed to me	☐	☐
I understand that I can withdraw from the project at any time, and if I choose to do this, any data I have contributed will not be used	☐	☐
I understand that I can contact the researcher by email	☐	☐
I understand that the research findings will be anonymised and may be used for outputs that will be in the public domain, i.e., thesis and research papers or presentations	☐	☐

Name _____

Signed _____   Date _____

Researcher's name: Gemma O'Herlihy   Signed _____

Appendix C: Piano Teacher Focus Group Interview Questions

1) What are the challenges that you experience with teaching musical literacy and creativity skills to beginner pianists? What do you find most difficult when teaching beginners?

2) Do you think piano teachers here know what theory teachers are doing in the musicianship classes? Is there a link there?

3) What skills do piano students and their parents desire and require for their musical learning? Do they, for example, all want to be concert pianists, or do they want to play for the rest of their lives…what do you think they want, or what are they saying to you, what are the parents saying or do they not know?

4) What do you think of Gary McPherson's suggestion that there should be a rebalance of the five performance skills e.g., playing by ear, improvisation, memorisation, sightreading, and performing rehearsed music? Is the system that we have inadequate to do that?

5) Do you think aural skills at some stage should become part of piano learning?

6) What pedagogical approach would respond to those challenges? What factors should be considered in promoting well-rounded musicianship for beginner pianists? What sort of teaching approach would be most desirable for teaching beginners and influence their confidence or thoughts about whether they would be likely to continue learning piano? What approach would be good for all students to develop, so there's a balance and it's not one over the other?

7) Do you think that there could be an alternative syllabus to allow students more choice?

8) How confident do you think teachers would be to teach beginners to play by ear? Would staff development help?

9) Which skills would you have preferred to learn as a beginner?

Appendix D: Pupil Information Leaflet

Introductory Piano Lab Project
September 2015 – May 2017

Information for beginner pianists
Please will you help with my research?

My name is Gemma O'Herlihy, and I am a research student. This leaflet tells you about my research. I hope you find the leaflet useful and would be pleased to answer any questions you may have. Please ask your parent to explain this leaflet. Parents, please discuss the leaflet with your child and talk with her/him about whether s/he wants to take part. I will also consult with the children during sessions and clarify that they can drop out of the project if they wish.

Why is this research being done?

The purpose of the research is to find out if beginner pianists benefit from learning aural skills such as playing by ear and improvisation, prior to learning to read music notation. I will focus on my pedagogical practice of improving children's development of aural and music literacy skills.

Who will be involved in the project?

You are invited to take part in this project because you are a beginner pianist, along with the other participants.

What will happen if you take part in and during the research?

You will engage in activities such as singing, playing melodies and bass lines by ear, improvising, transposing, learning to read familiar songs, and unfamiliar tunes and sightreading. If you agree, I will video record some classes and transcribe them later. I will also ask parents for monthly video diaries of their child's musical engagement and practice at home. I am not looking for right or wrong answers, only what everyone really thinks.

Could there be problems for you if you take part?

I hope you will enjoy taking part. Some pupils may feel upset when trying to perform new skills. They can stop being part of the research at any time if they want to but remain part of the class.

If you have any problems with the project, please tell me.

Will doing the research help you?

I hope you will enjoy helping me. The research will collect ideas for the future to help children's early musical development learning such skills as how to play by ear, improvise and sightread. There are benefits for the students who take part because they will learn new, fun, and creative musical activities that help their piano playing and practical musicianship, which they otherwise would not learn.

Who will know that you have been in the research?

When I write about the research, participants will remain anonymous. I will not use your real names or identify you in the research.

I will keep video recordings and notes in a safe place and change all the names in my reports so that no one knows who said what. After I have finished my research, I will delete the videos.

Do you have to take part?

You decide if you want to take part and, even if you say "yes," you can drop out at any time, and you don't have to answer questions. Your parent can tell me you want to take part by signing a consent form.

Will you know about the research results?

I will inform you of the research by June 2018.

The project has been reviewed by the Faculty Research Ethics Committee.

Thank you for reading this leaflet.

Appendix E: Pupil Consent Form

Institute of Education

UCL
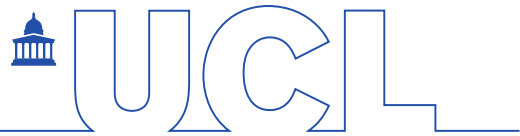
Introductory Piano-lab Project

If you are happy to participate, please fill out this consent form and return to Gemma O'Herlihy

	Yes	No
I have read and understood the information leaflet about the research	☐	☐
I am happy to join in with the piano lab project	☐	☐
I am happy for the classes to be video recorded	☐	☐
I understand if any of my words are used in reports, no one will know who said them	☐	☐
I understand I can drop out from the project whenever I want, and my information will not be used if that is what I want it	☐	☐
I understand I can contact Gemma O'Herlihy if I have any questions or complaints about the project	☐	☐
I understand the research findings may be reported to the public	☐	☐
I have talked about the information sheet with my parent	☐	☐

Print student's name _____

Signed by student _____ Date _____

Parent or carer's name_____

Signed by parent or carer_____

Researcher's name: Gemma O'Herlihy   Signed _____

Appendix F: Parent Consent Form

Institute of Education

Introductory Piano-lab Project

If you are happy to allow your child to participate, please complete this consent form and return to Gemma O'Herlihy

	Yes	No
I have read and understood the information leaflet about the research	☐	☐
I agree to take part as outlined on the information sheet	☐	☐
I am happy for my child's classes to be video recorded	☐	☐
I understand that if any of my words or those of my child are used in reports or presentations they will remain anonymous	☐	☐
I understand that my child and I can withdraw from the project at any time, and any data we have contributed will not be used if we so desire	☐	☐
I understand I can contact Gemma O'Herlihy by email	☐	☐
I understand the research findings will be anonymised and may be used for outputs that will be in the public domain, i.e., thesis, research papers or presentations	☐	☐
I have discussed the information sheet with my child	☐	☐

Student's name _____

Signed by student_____   Date _____

Parent or carer's name_____

Signed by parent or carer_____

Researcher's name: <u>Gemma O'Herlihy</u>   Signed _____

Appendix G: First Pupil and Parent Questionnaire 2016

Dear parent and pupil, I am interested in your feedback. Please complete the questionnaire together. I encourage you to use the back of this sheet if you wish to write further on what you think regarding the project.

1. The thing that I enjoy most in piano lab is:
2. What I discovered in piano lab that I did not know before is:
3. I need help with:
4. I am worried about:
5. Which musical skills do you think you now have that will last for a long time?

Piano Lab Musicianship Scale

About you as a musician		Not at all true			Neutral			Very true
		1	2	3	4	5	6	7
M U S I C I A N S H I P	I am good at clapping & chanting rhythm patterns	☐	☐	☐	☐	☐	☐	☐
	I am good at singing & playing tonal patterns	☐	☐	☐	☐	☐	☐	☐
	I am good at playing familiar tunes by ear HT	☐	☐	☐	☐	☐	☐	☐
	I am good at reading notation	☐	☐	☐	☐	☐	☐	☐
	I am good at improvising music	☐	☐	☐	☐	☐	☐	☐
	I am becoming a good musician	☐	☐	☐	☐	☐	☐	☐
	I plan to continue with playing by ear & improvising for a long time	☐	☐	☐	☐	☐	☐	☐
	I am good at working with other pupils	☐	☐	☐	☐	☐	☐	☐

(Welch, G., Duffy, C., Potter, J., & Whyton, T., 2006)

Appendix H: Second Pupil Questionnaire 2017

I am a Doctoral Student at the Institute of Education University College London, researching instrumental music learning. I need your help for my research to see how you, as a beginner pianist, developed aural and music reading skills during the piano lab project. Your participation is voluntary. You do not have to answer any question, and all completed questionnaires will be treated as strictly confidential, in accordance with the Institute of Education's ethical guidelines. I would be grateful if you would take a few minutes to complete this questionnaire, and then return it to me before 25 May 2017. Thank you for your cooperation.

Part I Perceived Competence

1. Which skills did you find most useful?

Put 1 against what you found most useful, 2 against the next most useful, and so on down to 7, for the least useful.

improvisation	•
memorisation	•
playing by ear	•
reading notation of familiar tunes	•
sightreading	•
transposing to other keys	•

2. Please read the following statements carefully, and check (✓) in the appropriate box, to indicate whether you think 'Not true at all', 'Neutral' or 'Very true'.

Musicianship scale:

About you as a musician		Not at all true			Neutral			Very true
		1	2	3	4	5	6	7
M U S I C I A N S	I am good at singing in sol-fa	☐	☐	☐	☐	☐	☐	☐
	I am good at playing familiar songs by ear	☐	☐	☐	☐	☐	☐	☐
	I am good at playing new songs by ear	☐	☐	☐	☐	☐	☐	☐
	I am good at reading notation	☐	☐	☐	☐	☐	☐	☐
	I am good at improvising	☐	☐	☐	☐	☐	☐	☐
	I am becoming a good musician	☐	☐	☐	☐	☐	☐	☐

H I P	I plan on continuing playing by ear for a long time	☐	☐	☐	☐	☐	☐	☐
	I am good with working with other pupils	☐	☐	☐	☐	☐	☐	☐

3. Which piano-lab song(s) did you enjoy learning this year?

Please indicate which piano-lab songs you found most enjoyable (✓) and which you found least enjoyable (x).

                                                 ✓ or x

Major Duple & Major Triple •
Little Pierrot •
Go Tell Aunt Rhody •
Hot Cross Buns •
Walking in the Air •
Arabian Dance •
Twinkle, Twinkle, Little Star & Triple Twinkle •
Down by the Station •
Lightly Row •
Patsy, Ory, Ory, Aye •
Oats, Peas, Beans •

4. Why did you find the x item(s) least enjoyable?

Part II Autonomy Questions	**Yes/No answers**
1. Do you teach yourself how to play other tunes that you like by ear, outside of piano-lab classes?	Yes ☐ No ☐
2. Do you learn more when you find the notes yourself, without being told or shown them?	Yes ☐ No ☐
3. Do you think that you need your parent's help in class?	Yes ☐ No ☐
4. Does piano lab help with your piano lessons?	Yes ☐ No ☐
5. Does piano lab help with your musicianship theory class?	Yes ☐ No ☐
6. Do you find home video of your practice useful?	Yes ☐ No ☐
7. Do you find weekly emailed homework helpful?	Yes ☐ No ☐

Part III Preferences

Please complete the following sentences about what you think about piano lab lessons:

1. The thing that I enjoy most in piano-lab is:
2. I don't like it when:
3. I need help with:
4. I am worried about:
5. What I discovered in piano lab that I did not know before is:

1. Do you prefer learning a new song by ear or by reading it first? Why?
2. Do you prefer to learn a song in the same key as the CD or to transpose it to an easier key?
3. Can you explain how you improvise?
4. Can you explain how you read music notation?
5. Which musical skills do you think you have that will last for a long time?

Part IV Pictures

Please draw a picture of a normal piano lab lesson. This is not a test of artistic ability but an opportunity for you to express your experience with pictures rather than words.

Part V Brief information about yourself

1. Gender (*tick box*)   Male •   Female •

2. Your age: _____

3. How long have you played the piano? _____

4. How much piano lab practice do you do each week?

   0-2 hours •   2-4 hours •   4-6 hours •   more than 6 hours •

☺*Thank you for your help*

⊠ Please return the completed questionnaire in the envelope provided.

Appendix I: Second Parent Questionnaire 2017

As a doctoral student at the Institute of Education University College London, I am researching parent-teacher-pupil interacting and supporting piano lab learning, in which your child took part. I am especially interested in exploring how a re-balancing of ear-playing and music reading skills has benefited beginner pianists, and whether they have developed broader musicianship skills through the piano lab project. Little is known about beginner pianists' development of aural and music reading skills in a group setting, particularly in relation to the views of parents. This questionnaire offers an opportunity for parents to share their experience and views. You can contribute to the development of knowledge in the field of instrumental teaching by helping me with this project. Your participation is entirely voluntary. You may omit answering any question. I will anonymise the data and treat all information confidentially, according to the Institute of Education's ethical guidelines. Please complete the questionnaire and return it to me in the enclosed envelope before 25 May 2017. Thank you for your cooperation.

Part I What do you think about your child's music learning in piano-lab?

Please read the following statements carefully, and check (✓) the appropriate box.

	Strongly Disagree	Disagree	Neutral	Strongly Agree	Agree
EXAMPLE:	1. •	2. •	3. ☑	4. •	5. •

	Strongly Disagree	**Disagree**	**Neutral**	**Strongly Agree**	**Agree**
a) I felt welcomed to sit in on lessons.	1. •	2. •	3. •	4. •	5. •
b) I am aware when my child does not understand the piano lab teacher.	1. •	2. •	3. •	4. •	5. •
c) I am unsure if I can help my child reach her potential.	1. •	2. •	3. •	4. •	5. •
d) My child would equally progress without me in piano lab.	1. •	2. •	3. •	4. •	5. •
e) I understand the purpose of the project.	1. •	2. •	3. •	4. •	5. •
f) Piano lab helps with my child's piano lessons.	1. •	2. •	3. •	4. •	5. •
g) Using my smartphone for videoing in class is helpful.	1. •	2. •	3. •	4. •	5. •

Part II Parents' Views on the Challenges

1. What are the challenges that your child has with playing by ear, improvisation and/or reading notation?

_____

2. What are the concerns that you have with the piano lab project?

_____

3. How does piano lab help with individual piano lessons and theory classes?

_____

Part III	**Yes/No answers**
1. Do you find weekly emailed-homework helpful for your child?	Yes ☐ No ☐
2. Do you think the video diary was useful for your child?	Yes ☐ No ☐
3. Has the project led to some resistance of music reading?	Yes ☐ No ☐
4. Do you think parents without musical backgrounds require an introductory course to help them support their child's piano lab learning?	Yes ☐ No ☐
5. Are you satisfied with your child's piano lab learning?	Yes ☐ No ☐

Part IV Your involvement in your child's piano-lab study

Please read the following statements carefully, and check (✓) the appropriate box, to indicate your response.

	Never	Rarely	Sometimes	Often	Always
EXAMPLE:	1. •	2. •	3. ☑	4. •	5. •

	Never	**Rarely**	**Sometimes**	**Often**	**Always**
a) I ensure my child practices daily.	1. •	2. •	3. •	4. •	5. •
b) I help with my child's practice.	1. •	2. •	3. •	4. •	5. •
c) I maintain a suitable place for practice at home.	1. •	2. •	3. •	4. •	5. •
d) I provide a quality piano & adjustable stool for my child.	1. •	2. •	3. •	4. •	5. •
e) My child can use a CD player or its equivalent near the piano.	1. •	2. •	3. •	4. •	5. •

Part V Brief information about yourself.

1. Gender (*tick box*)   Male •   Female •

2. Your musical background:

      i. none •   ii. learnt an instrument as a child •

      iii. amateur musician •   iv. began an instrument as an adult •

      v. attended music college •   vi. professional musician •

 3. In general, what would you like your child to achieve in piano learning?

Write 1 against what you found most useful, 2 against the next most useful, and so on down to 8, for the least useful.

    Broaden practical musicianship skills, such as playing by ear   •

    Develop confidence in performance   •

    Develop musical creativity   •

    Pass piano examinations   •

    Pass Junior/Leaving Certificate piano examinations   •

    Play with others in an ensemble   •

    Play informally at functions   •

    Play for personal enjoyment   •

ADDITIONAL COMMENTS

I have tried to make the questionnaire as understandable as possible, but you may think that some issues were omitted. Please use this space to add any further comments in relation to the piano lab project.

☺*Thank you for your help*