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‘Play it by ear’ – teachers’ responses to ear-playing tasks during one to one instrumental lessons

Abstract

This paper reports findings from the *Ear Playing Project* (EPP) in relation to the teaching strategies that 15 instrumental teachers adopted during one-to-one instrumental lessons whilst helping their students to copy music by ear from a recording. Overall, the teachers used a variety of strategies including singing and humming along with or without the recording, asking questions, and giving verbal explanation and positive feedback. By the end of the project the teachers indicated that the project showed them a new and enjoyable way to introduce aural-training tasks, it helped them develop their own confidence in ear-playing and it gave them the opportunity to observe and assess their students’ needs more carefully. The benefits for the students included greater enjoyment during instrumental lessons, development of aural and improvisation skills and greater confidence in instrumental playing.

Key words

Ear-playing, teaching strategies, one-to-one instrumental tuition, student autonomy

Introduction

The one-to-one instrumental lesson is a context that dominates music teaching and learning in western classical music (Creech & Gaunt, 2012). However, ear-playing from a recording within one-to-one instrumental tuition has rarely been

adopted. In this study, 'ear-playing' (or 'playing by ear') refers to the processes of playing music 'without the aid of notation, without the visual stimulus of watching a live instrumental model, without verbal hints such as solfege' (Musco, 2010, p. 49) and, in particular, to playing back from a recording.

The significance of ear-playing has been highlighted by James Mainwaring' (1951b, p. 201) who stressed that music performance on any instrument 'should be based as in speech on the mechanisation of the sound-action relation'. He explained that playing by ear is the most fundamental of all the performance skills and should be the first stage towards the development of applied musicianship. Priest (1985, 1989) has also argued that advanced aural ability can be achieved by ear-playing, and that ear-playing is a foundational musical process which has been historically undervalued in formal education.

Unlike playing music from memory, ear-playing 'involves the recreation of an existing piece of music at the same pitch level as the original learnt model, or transposed to another pitch level' (McPherson, 1995a, p. 147). Playing by ear, therefore, demands careful and attentive listening which, as is well known, is fundamental to most vernacular musics of the world, as well as many non-Western classical traditions (Campbell, 1991; O'Flynn, 2006). McPherson's research (McPherson, 1995b, 1997; McPherson & Gabrielsson, 2002) has also shown that ear-playing is directly connected with the skill of improvising, sight reading and playing from memory. In other words, the development of ear-playing skills could assist the development of these other musical skills. But, in order for this to happen, early exposure to ear-playing and other enriching activities, such as composition and improvisation as well as ensemble involvement would be essential.

Ear-playing has also been said to enhance aural development (Hallam, et al., 2012; Woody & Lehmann, 2010) and enjoyment through musical exploration (Harwood & Marsh, 2012; Priest, 1985). Currently there is a wealth of research in music education that explores the teaching and learning of popular music, including investigations of students' responses to ear-playing tasks during the early stages of learning a classical instrument (McPherson, 1997, 2005); strategies employed by ear players to hear and play chord progressions when playing unfamiliar rock songs (Johansson, 2004); learner musicians' ear-playing ability as a function of vernacular music experiences (Woody & Lehmann, 2010); and students' responses to copying popular and classical music from a recording during one-to-one instrumental lessons (Green, 2012a, 2012b) and in classroom contexts (Green, 2008). These studies highlight that playing by ear may be more important to musical development than has commonly been assumed.

Priest (1985, p. 11) urged all instrumental teachers to 'experience ear playing for ourselves' and argued that this would be beneficial not only to the teachers' own playing and musicianship, but also to their teaching approach. He stressed that opportunities for self-initiated learning and periods of non-evaluated practice, where students are 'not constantly assessed by some absolute criterion of correctness set up by teachers' are key in supporting students' confidence and competence in ear-playing. Yet, a major barrier to ear-playing during one-to-one instrumental lessons is that instrumental teachers seem to undervalue it because they feel that 'it will impede the development of skills in music reading' (Musco, 2010, p. 51; Woody, 2012) whilst others express regrets for not having enough time for 'creative activities' (Mainwaring, 1951a; Musco, 2010; Priest, 1989). There are also instrumental teachers who admit that

they do not have the skill to teach it (Musco, 2010) but those who use it do not seem to teach strategies for achieving it (McPherson, 2005).

The Ear Playing Project

The 'Ear-Playing Project' (EPP) received funding for one year from the Esmée Fairbairn Foundation and the Institute of Education, University of London to explore students' and teachers' responses to a structured approach to ear-playing during one-to-one instrumental lessons developed by Lucy Green. This approach was piloted in a study that involved 4 participant teachers (brass, woodwind, strings and piano) and 15 students (Green, 2012a, 2012b). The teachers included three instrumentalists working peripatetically in a secondary school, and one private piano teacher who worked from her home, near to the school. They were all classically trained, although the woodwind and piano teacher had also worked in theatre bands and other contexts where they had used ear-playing and/or improvisation. The students were aged 10-17, with attainment levels ranging from beginner (playing for 8 months) to Grade 5 (using the standard UK grading system¹); however the majority of them were around the Grade 2 level.

The aims of the EPP were to introduce ear-playing from a recording to the students and ascertain to what extent, and in what ways, the approach has helped them to (1) develop their aural skills, especially their ability to play back what they hear and to work out music by ear, (2) enhance their improvisatory and creative abilities, (3) foster their general listening skills and musical

¹ There are many exam boards examining thousands of students in the UK with similar set ups in a range of other countries. In the UK, the boards tend to adopt a system of eight grades, with Grade 8 being the most advanced. A Distinction in Grade 8, or beyond, would normally be needed to get into an undergraduate conservatoire course.

appreciation, enabling them to listen attentively and purposively to a range of classical and other music, and (4) increase their autonomy and understanding as musicians and as learners. These aims were approached by engagement in copying music by ear from a recording during the learners' one-to-one instrumental lesson for approximately ten minutes per lesson, over a period of six to eight weeks.

There were three stages to the EPP; the first stage involved a specially prepared instrumental track, *Link Up*, in a pop/funk style (see Figure A), the second classical pieces and the third a free choice brought to the lesson by the learner. In the EPP we worked with over 54 teachers and 340 students, mostly in one-to-one settings. We collected data through 228 lesson observations involving 110 of the students and 21 of the teachers; 43 student interviews and 17 teacher interviews; 193 student questionnaires and 54 teacher questionnaires². Most of the students experienced 5 to 10 lessons in the project. This paper focuses on the teaching strategies adopted during the first EPP project instrumental session by 15 music teachers with a total number of 75 students. In line with teachers' concerns and fears on using ear playing, the project aimed at giving teachers strategies for teaching ear-playing and other aural work and at developing their confidence and ability in ear playing. Therefore, this paper also discusses the perceived benefits of the project for the students and the teachers themselves as reported on open questions in questionnaires filled in by the teachers (n=12) and through face-to-face interviews with ten of them at the end of the project.

² Further information is available on the project website: <http://earplaying.ioe.ac.uk> and in various recent and forthcoming publications (Baker, forthcoming; Baker & Green, forthcoming; Green, forthcoming; Varvarigou & Green, submitted).

EPP teacher inductions took place at the beginning of the project. It was suggested to the teachers that during the one-to-one instrumental sessions the teachers could: allow the student time to work out the task themselves; sing pitches whilst the student plays; play the pitches on their own instrument; play along with the recording; stop the student to correct technique (fingers/embouchure) when appropriate; link the musical elements of the riffs with music theory; describe verbally what is happening to the music; give a note-name but allow students to work out the other notes by ear.

Figure A: Link Up

Figure A: Link Up L. Green

Moderate

The musical score for 'Link Up' is presented in a system of six staves. The first five staves are in treble clef, and the sixth is in bass clef. The time signature is 4/4, and the tempo is marked 'Moderate'. The key signature has one flat (B-flat). The score consists of a repeating rhythmic pattern of eighth notes and rests, with various melodic lines in the upper staves and a bass line in the lower staff. The music is written in a pop/funk style.

During the first session of the project, the students were asked to listen to a recorded track in a pop/funk style, then to listen to the bass line played on its own, and whilst listening, to seek the pitches by ear. It is important to mention that each track involved a riff, which repeated itself over and over for two minutes. The students were not, at this stage, told the note-names, key or other characteristic of the music, nor given any visual demonstration by the teacher,

nor any other clues. It was explained to the students that they were free to approach the task in whatever way they wished, and that it 'did not matter' if they played 'wrong' notes or notes that were 'different from those on the recording'. We put the term 'wrong' here in inverted commas, just as we will put the term 'correct' in inverted commas: the reason for this is precisely because the students were told it did not matter if they did not play exactly the same notes as on the recording (i.e. the 'correct' notes) but that they were free to interpret the music if they so wished (see also Mainwaring, 1951a).

Methodology and methods

The study adopted a phenomenological research methodology (Denscombe, 2003). Qualitative data were collected through detailed transcriptions and analysis of audio recordings of the first session from 15 teachers and 75 students. The audio recordings took place in January and February 2012. They were recorded with a Zoom H4n Digital Recorder, which was placed close to the learner. Audio recordings were preferred over video recordings in order to minimise the possible feeling of intrusion experienced by the teachers and students during the lesson.

All 75 audio tracks were transcribed – this task was divided amongst three researchers. The spoken responses from teachers and students, including comments, questions and dialogues were transcribed verbatim and the musical notes that each learner played were also annotated. A thematic analysis of the transcripts was then carried out. A separate database with ten interview transcriptions and the responses to the open questions of the questionnaire from twelve teachers who answered the questions was developed. NVivo 9 was used

to support the process of analysis. The data were analysed through an iterative process outlined by Cooper and McIntyre (1993, p. 384). The process involved:

1. Reading a random sample of scripts;
2. Identifying points of similarity and difference among these transcripts in relation to the research questions;
3. Generating theories against a new set of transcripts.
4. Testing theories against a new set of transcripts;
5. Testing new theories against transcripts that have already been dealt with;
6. Carrying all existing theories forward to new transcripts;
7. Repeating the above process until all data have been examined and all theories tested against all data.

Finally, two SPSS files were developed; one with data from each individual learner given by their teachers (gender, age, instrument, last grade taken, grade working towards, learning style and number of riffs played during the first lesson) and one with data collected from the teachers.

The profile of the participant students and teachers

Background information on the 75 students who contributed audio tracks was collected during the observation visits and from the teachers towards the end of the project. The female participants (n=55, 73.3%) outnumbered the male participants. The age of the participants ranged from seven to 58 (no=61, SD=9.4), with the majority being between 11 and 14 (36/61, 59%). Most

participants played the piano (n=57, 76%). Table 1 shows the number and percentage of instruments that the students played broken down by gender. Information from a small number of students (n=46) suggested that 32 (69.6%) were either at Preparatory Grade 1 or Grade 1 and 2 standard when they started the ear-playing strategies and were working (n=59) towards grades 2 (14, 23.7%) or 3 (17, 28.8%).

Table 1: Student number and percentage of instruments broken down by gender

Gender	Instrument (no and %)						Total
	Piano	Violin	Flute	Recorder	Sax	Guitar	
Male	18	0	0	0	2	0	20
% within gender	90%	0%	0%	0%	10%	0%	100%
% of Total	24%	0%	0%	0%	2.7%	.0%	26.7%
Female	39	5	8	1	1	1	55
% within gender	70.9%	9.1%	14.5%	1.8%	1.8%	1.8%	100%
% of Total	52%	6.7%	10.7%	1.3%	1.3%	1.3%	73.3%
Total	57	5	8	1	3	1	75
% within style and of total	76%	6.7%	10.7%	1.3%	4%	1.3%	100%

The teachers whose first EPP session was observed and recorded comprised thirteen women and two men. Table 2 shows the number and percentage of instruments taught by the teachers broken down by gender.

Table 2: Teacher number and percentage of instruments broken down by gender

Gender	Instrument (no and %)					Total
	Piano	Piano/ guitar	Flute/ recorder	Saxophone	Violin	
Male	2	0	0	0	0	2
% within gender	100%	0%	0%	0%	0%	100%
% of Total	13.3%	0%	0%	0%	0%	13.3%
Female	7	1	3	1	1	13

% within gender	53.8%	7.7%	23.1%	7.7%	7.7%	100%
% of Total	46.7%	6.7%	20%	6.7%	6.7%	86.7%
Total	9	1	3	1	1	15
% within style and of total	60%	6.7%	20%	6.7%	6.7%	100%

Information that was collected from questionnaires returned at the end of the project indicated that one teacher (6.7%) was under thirty years old; five teachers (33.3%) were between 31-40 years of age; four teachers (26.7%) were between 41-50; four were between 51-60 (26.7%) and one teacher was over 61 years old. Their years of experience in instrumental teaching varied (from five to thirty years, $n=12$, $SD= 8.5$), they tried the EPP materials and strategies with a number of students (from two to twelve, $n=12$, $SD=2.8$) in different teaching contexts: eleven in private practice (73.3%), five as peripatetic music teachers for a Music Service (33.3%)³, two as part of the Wider Opportunities programme (13.3%)⁴ and one in school as a regular class teacher (6.7%). Eight teachers (66.7%) reported only being classically trained; two (16.7%) had additional training in pop/rock music; one (8.3%) had training in classical and jazz and one (8.3%) in classical and folk music. Lastly, seven teachers (46.7%) had a Higher Education degree; five (33.3%) held a Postgraduate Certificate in Education (PGCE) and three (20%) had a teaching diploma⁵.

³ Across the UK, Music Education Hubs (Department for Education, 2011) provide a variety of services in schools and in specialist centres, such as instrumental tuition, a wide range of ensembles, holiday courses, specialist projects and curriculum support. Until August 2012 Local Authority Music Services fulfilled this role.

⁴ ‘The Wider Opportunities programme provides whole-class instrumental tuition across schools within the primary sector, offering every child the opportunity to access tuition. The programme is accompanied by a major continuing professional development scheme, developed by the Open University and Trinity Guildhall. The training is free and open to anyone concerned with primary music education, including specialist teachers, instrumental teachers, community musicians and learning support assistants’ (Adams, McQueen, & Hallam, 2010, p. 28)

⁵ The results of the questions on the teaching context and the qualification do not add up to 100% because teachers could choose more than one answers.

Teaching strategies

During the first EPP lesson the teachers adopted a variety of teaching strategies (see Table 1). Teacher talk and control over the recording were dominant during the first session. Teacher talk included explaining the task; encouraging the student to start or keep playing; offering positive general or attributional feedback; asking questions about what was being heard or about how the student wanted to continue with the activity (procedural questions). Moreover, the teacher prompted the student to listen and try to find the first note. The teachers operated the CD player and used their professional judgement to decide when to stop the music and slow down the learning process by singing along without the recording, by singing prolonged notes to allow the student to seek it and use it as an anchor to build up the melodies, or when to resume the music and sing along with it. Modelling was hardly used but when it was used it happened after the student had already had time to work out the pitches on their own and after listening to the teacher playing the riff the student was encouraged to echo it back.

Table 3: Teaching strategies during the first EPP session

Teaching strategies with examples from lesson transcriptions	Sources	References
Positive general feedback (e.g. 'You are doing really well'; 'That's good girl, perfect')	36	215
Asking music-related questions , (e.g. 'It's how many different pitches?' 'If you were starting from D, would it go higher or lower?')	32	175

Asking procedural questions , (e.g. 'Do you want to listen to it again?' 'Do you want to try to work it out again without the music?')	35	171
Starting and stopping the recording	19	139
Singing or humming along with the recording	23	137
Explanation (e.g. 'Well, what you have to do is play back what you can hear. Ok?'; 'Just listen to this and join as soon as you can, on the piano. Work out how many notes you hear first of all and once you have figured out how many notes you need to play (music starts playing)...You can hear the drums'.)	36	128
Encouragement to start or keep playing (e.g. 'That's it. There is no right or wrong', 'Just try it and see. You won't know until you have tried it')	28	115
Singing or humming without the recording	14	93
Attributional feedback (e.g. 'You have got it absolutely spot on, there is just one extra note at the end that you've not played', 'The rhythm was perfect. It was accurate. And one note was correct – but let's find the other notes as well')	25	74
Prompting the students to listen (e.g. 'You can listen to it for a bit. You can try and join in and, then, see how you get on'; 'But use your ears. Don't worry about anything else. It doesn't matter').	25	69
Singing a prolonged note	12	52
Plays the 'correct' version on their instrument (modelling)	12	46
Advising the students to find the first note (e.g. 'We want to isolate the first note of the riff'; 'Try and find one of the notes.	16	44

How about the starting note? Try and find what the notes sounds like')		
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The teachers' views

When, at the end of the project, the teachers were asked about the benefits of the EPP for them they reported that it encouraged them to explore new repertoire and a new teaching pedagogy that included 'teaching music in separate parts' or 'starting aurally'. Some talked about how the project helped them develop confidence in ear-playing and in aural skills, in general. Finally, the teachers emphasised that the project helped them give their students more autonomy during the lessons, and by standing back assess their students' needs more carefully (see Table 2).

Table 4: The benefits of the EPP for the teachers

Benefits for the teachers with examples	Sources	References
New ideas (e.g. another musical approach; new repertoire; teach music in separate parts; make lesson plans, use garage band, start aurally).	16	21
Ear-playing into action and development of confidence (e.g. 'The programme helped my professional development as it helped me put ear playing into action in my lessons rather than just thinking about doing it in the future or writing essays about it'; 'I know it definitely made me more confident with approaching things from an aural perspective').	12	16
Give autonomy to the students (e.g. 'Well, I have learnt some	10	16

<i>bad things about myself that I don't like, I feel terrible. Just generally, that I need to get away from prescriptive instrumental teaching'; 'It got me to stand back a little more and let them work it out for themselves').</i>		
Assessing students' needs more carefully (e.g. <i>'It was interesting to reflect on the process of teaching by ear in this way and has given me the opportunity to observe what happens when the focus in lessons is purely aural rather than aural with some visual support'; 'The programme highlighted the value of skills which are not dependent on the use of notation, and reminded me of the importance of providing a broad and balanced curriculum and of tailoring my teaching style to each individual pupil's needs').</i>	6	7

With reference to their students' development (see Table 3), the teachers identified benefits from ear-playing during one-to-one instrumental lessons linked to an increase in students' confidence in playing diverse repertoire and in using alternative pedagogies; enjoyment from bringing their favourite music and performing it during the lesson; listening with expectation and more awareness of dynamics and phrasing; and encouragement to improvise.

Table 5: Teacher responses in relation to benefits from the EPP for their students

Benefits for the students with examples	Sources	References
Students gained confidence (e.g. <i>'The project added diversity to the way of listening and fun to the lessons. Also, added</i>	9	15

<i>confidence to the students' playing'; 'Mainly confidence in being able to play things that they wouldn't otherwise being able to play, or they wouldn't have thought that they would be able to play...')</i>		
Students seemed to enjoy it (e.g. 'I really enjoyed it and from what I saw by students they really enjoyed it as well'; 'I think it is very important [playing by ear]. I think it is part of the enjoyment to just being a musicians and playing, and that has certainly come across in the project')	6	7
Students listened with expectation/ more aware of dynamics and phrasing (e.g. 'One said that through the EPP she had come to realise that music has a lot of different layers you could listen to'; 'I do think they gained a lot, in as far as, I think they listen and they certainly link it to what they are playing as well. They listen with more expectation, so that they can rely on their ears')	5	7
'Another piece of the jigsaw' (e.g. '[Playing by ear] is another piece of the jigsaw, I think they need to do all aspects of playing, you know...'; 'I think a lot more youngsters are listening to other, they are listening to a lot of different music now, like you know because they have got iPods and they are, you know, on the internet, they hear a lot more music. I think perhaps it raises awareness that they can do something themselves without having to go out and find music and play it by, you know from the music rather than by ear').	5	7
Students developed improvisation skills (e.g. 'Well, the	2	3

<p><i>oldest one C., and in the actual ear-playing project with the first part we had a sort of various layers...Well, he just went off, you know, once you got the same and the various and the other chords, the top and the middle, he just, off he went, he just experimented up and down the keyboard and he just improvised').</i></p>		
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Discussion and implications for practice

Observations of the first one-to-one instrumental session to the EPP with a group of fifteen teachers revealed that offering positive feedback, asking questions, singing or humming along with or without the recording, singing prolonged notes and encouraging the student to listen, or to try and find the first note were amongst the most popular strategies adopted by the instrumental teachers. Most of these strategies were recommended to the teachers during the induction to the project. The frequency of verbal interactions between teacher and student, however, was quite surprising. There are two possible explanations for this; firstly, the teachers possibly responded to the students' initial hesitation to engage in a musical activity (i.e. copying music by ear from a recording) that has not traditionally been part of one-to-one instrumental lessons despite significant music education research highlighting its benefits for teachers and students alike (Mainwaring, 1951b; McPherson, 1995b, 1997; McPherson & Gabrielsson, 2002; Priest, 1985, 1989; Woody, 2012). Secondly, the frequency of verbal interactions could have been attributed to instrumental teachers' instructional approach during one-to-one lessons that is characterised by teacher domination (Carey, Grant, McWilliam, & Taylor, 2013; Colpritt, 2000;

Creech, 2009; Creech & Gaunt, 2012; Creech & Hallam, 2011; McPhail, 2013; Tait, 1992). This has resulted in the teachers talking more (and dominantly operating the CD player) rather than letting the students play along and autonomously operate the recording. From the beginning of the project, the teachers were asked to step back rather more than usual by talking less and by giving students ample time to tackle and achieve the task (Green, 2012a). The observational data from the first lesson illustrate how difficult that was for the teachers. In their responses to the interviews, nonetheless, the teachers recognised the benefits of stepping back for them and their students. These benefits include promoting students' self-initiated learning and autonomy over their own learning (Priest, 1985) and observing the students' learning, which led to the teachers assessing their needs more carefully. Their observations of their students' process of copying music by ear from a recording helped the teachers realise that ear-playing '*is another piece of the jigsaw*' and a valuable skill complementary to notation reading, learning from memory and sight-reading (McPherson, 1995a, 1995b, 1997; McPherson & Gabrielsson, 2002). One teacher in particular acknowledged that the project '*highlighted the importance of providing a broad and balanced curriculum tailored on individual needs*' whilst another emphasised that the project helped her realise that she needed to '*get away from prescriptive instrumental teaching*'.

The teachers reported that giving the students more space and time to respond to the ear-playing tasks boosted the students' confidence in '*playing things that they wouldn't otherwise be able to play*'. One success story offered by a piano teacher acknowledged that ear-playing could be a challenge for 'visual'

learners but emphasised the strong link between ear-playing and playing from memory.

‘One of the ‘visual’ adults learnt Kabalevsky’s Clowns and played it from memory to me in the last lesson. She likened it to the programme, and said how much more she listened to the music and saw new things in it without the score in front of her. I think the EPP helped her to change her thinking; she initially said she would never be able to play by ear or from memory, and although she still finds it tough and may shy away from it, she has seen its benefits for herself’.

This success story also criticises the impact that prioritising reading notation over playing by ear has on our musical learning, in Mainwaring’s words (1951b, p. 201) the ‘symbol-action-sound’ instead of the ‘sound-action-symbol’ process of learning. It is argued here that the ‘symbol-action-sound’ process restricts our ability to listen more structurally (in the EPP teachers’ words ‘*to see new things*’ in the music and ‘*to realise that music has a lot of different layers you could listen to*’) and limits our confidence to ‘keep going...without losing the sense of the musical flow of time’ (Green, 2012a, p. 162; Priest, 1989).

Having some choice over the music repertoire and over the approach to go about copying music by ear was possibly one of the reasons that led to the students’ reported enjoyment of the ear-playing activity and their reported development of listening skills. Another reason offered by one teacher was the students’ feeling ‘*of just being a musician and playing*’. This feeling was enhanced by being able to play along with the recording, an experience that closely emulates playing in an ensemble (Green, 2001, 2008; McPherson, Bailey, & Sinclair, 1997).

Teacher modelling, which is an established approach to one-to-one teaching (Colprit, 2000; Tait, 1992) and 'may be the most effective teaching strategy to improve the accuracy of student playing' (Zhukov, 2012, p. 35) was scarcely used during the first session of the EPP. One possible reason is that the majority of the students observed in this study played the piano. Had the majority played a string or a wind instrument, modelling might have occurred more frequently. Teacher feedback, on the other hand, was generously offered with positive general feedback rather than specific attributional feedback (also in Zhukov, 2012) being more frequently used. Again, this is believed to have occurred in response to students' initial unfamiliarity with the task, so the feedback offered during their first EPP lesson was used more as a tool for encouragement rather than as a tool for self-regulation (Fryer & Elliot, 2008).

The area of ear-playing in one-to-one contexts contains much potential for further studies concerning instrumental and vocal pedagogy. Existing research has argued that ear-playing should start as early as possible in students' tuition (Mainwaring, 1951b; Priest, 1985, 1989; Woody & Lehmann, 2010). McPherson and Gabrielsson (2002, p. 106) explained that 'if children's attention is focused on reading notation, they may have few cognitive resource left to devote to manipulating their instrument and listening to what the play'. As it was underlined by the EPP project, not including ear-playing during one-to-one tuition could not only affect predisposition towards ear-playing, demonstrated here through students' hesitation to tackle the task, but also predisposition towards other musical activities necessary for the development of a rounded musician such as playing from memory, sight-reading and improvising (Mainwaring, 1951a).

This paper wishes to make a strong case for the teaching of ear-playing in one-to-one instrumental lessons in all levels of education, but particularly in universities and conservatoires. Findings from the EPP have illustrated that ear-playing incorporates exploration, discovery-learning and problem-solving that helps students foster their 'critical, creative, and self-regulated thinking skills' (Creech & Gaunt, 2012, p. 700), which can be transferred to a broad range of activities and can support the portfolio musicians pathway. There are benefits for the teachers, as well, such as the reported development of ear-playing skills and general confidence in playing their instrument. For some teachers, ear-playing was a 'born again experience' (Priest, 1989, p. 178) that helped them 'rediscover' learning strategies that they had as children.

'The programme helped me become more confident in teaching others – not to mention rediscovering the value of – the learning strategy that were frequently the most useful to my own musical education. It is easy as a teacher to rely on curriculum, syllabi, tutor books etc without properly considering the sheer multiplicity of musical encounters you yourself had in conjunction with formal education the first time round (your brother teaching you the Super Mario theme tune, learning Coldplay songs to impress girls (!), etc). These are all the sorts of things that we as teachers are very quick to abandon in preference for giving our students a 'proper' (although always good-intentioned) musical education'.

However, like reading notation, improvisation and sight-reading, ear-playing requires focus and practice during and outside lessons for both the teacher and the student. To conclude, learning music is diverse, active and dynamic (Hennessy, Malmberg, Niermann, & de Vugt, 2013, p. 278) and pedagogies like the one presented here based on ear-playing (Green, forthcoming) offer students

'another piece of the jigsaw' of music-making and 'reflect music and musical practices and their current existence in society'.

Limitations and summary

The author is cautious in claiming that the findings of this study are representative of a larger population of musicians. Firstly, the dominance of the piano students might have impacted on the type of strategies adopted by the teachers. Secondly, the fact that most students were at Grades 1 and 2 standard might have led the teachers adopt specific strategies to help them deal with the ear-playing task. Had the project been undertaken with a more homogeneous and advanced group of students, such as university or conservatoire students, it might have resulted in a different set of strategies adopted by the teachers. Thirdly, the data discussed here have been collected from the first lesson of the project, which used the popular music excerpt. Further research should therefore investigate the development of multiple teaching strategies for the development of aural skills over time, with different musical genres and students of different competence levels.

Nonetheless, this research has been valuable for studying the response of music teachers when doing something that they do not normally do, with direct implications for pedagogy. Priest (1989, p. 173) explained that 'most teachers regret that their pupils are not more spontaneous and enthusiastic in their music-making' and that 'aural reactions are not more accurate and quicker'. The role of the teacher is, therefore, salient in supporting students' confidence and enjoyment in instrumental music lessons. Findings from the EPP indicate that ear-playing has reportedly supported students' development of aural skills,

especially their ability to play back what they hear, their confidence in improvising and experimenting with musical sounds, their autonomy as musical learners through choosing musical material that they enjoy and through choosing how and when to interact with their teacher during the ear-playing activities. The pedagogic approach discussed here additionally facilitated teachers' development of confidence in ear-playing, it offered them new ideas for one-to-one instrumental teaching activities and helped them realise that stepping back during the lessons could support students' autonomy and their own ability to observe and assess students' need more carefully.

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