

Music Instrument Teachers in Higher Education: An Investigation of the Key Influences on How They Teach in the Studio

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In higher education music instrument teaching, there is a strong tradition of high-level performers being recruited to teach advanced students within the private studio despite the fact these educators often have no training in pedagogy. The studio environment also continues to be dominated by the one-to-one lesson format and the master-apprentice tradition. While the literature overviews a long history of the master-apprentice tradition in various fields, there is to date minimal empirical research that specifically evidences the extent to which it is cyclical in nature. This paper reports on survey data from 54 current tertiary educators across four countries who were asked to identify the key influences on how they work within the music studio. The data point not only to the influence of the master-apprentice tradition, but also to the fact that most current educators rely on previous teachers and experiences of teaching to inform their pedagogy.

In terms of the broad field of education, formal accreditation is normally required in order to teach at the early childhood, primary, and secondary level schools or colleges. At the tertiary or university level, however, the requirement to be formally accredited to teach is less common. This is currently the case in the area of the creative and performing arts in higher education, with many tertiary educators recruited on the basis of their reputation and skills rather than their training in, or understanding of, pedagogy. In terms of the specialized area of music instrument teaching at advanced levels, this is typically the norm in the majority of higher education institutions worldwide.

Across the global higher education sector, there is a tradition of high-level music performers being recruited to teach students who are learning an instrument in conservatories or university/college music departments. In addition, music instrument teaching has been underpinned by the “master-apprentice” tradition, with the highly trained music performer assuming the role of expert or “master” and the developing learner the role of “apprentice” (Burwell 2013, 2015; Long, Creech, Gaunt, & Hallam, 2014; McPhail, 2010; Rakena, Airini, & Brown, 2015). The master-apprentice relationship has in fact a long history and influence in the western art music field. This framework for learning has underpinned the training of musicians for centuries, from beginner through to advanced stages, not only in music performance (Burwell, 2015; Daniel, 2006; Duffy, 2013; Nielsen, 1999; Thorgersen, 2014; Vieira, Fabbri, Travieso, Oliveira, & Costa, 2013), but also in composition (Vieira et al., 2013) and postgraduate research (Harrison, 2012; Harrison & Grant 2015). The master-apprentice relationship dominates the one-to-one or studio lesson in music, which remains the most common format by which students learn an instrument and regardless of level (Burwell, 2015; Carey & Grant, 2014, 2015; Daniel 2006, Gaunt & Westerlund, 2013;

Nielsen, 1999). The one-to-one or studio lesson is, however, an elusive area of music education, given that it occurs behind closed doors and with minimal public or educational scrutiny (Carey & Grant 2014; Carey, Lebler & Gall, 2012; Collens & Creech, 2013; Gaunt, 2011; Gaunt & Westerlund, 2013; McPhail, 2010; Persson, 1996; Wexler, 2009).

While the one-to-one lesson and the master-apprentice relationship that underpins it continue to dominate the music instrument teaching and learning landscape, there are no regulatory or other requirements for the teacher as “master” to formally study the art of pedagogy (Parkes & Wexler, 2012). In fact, Persson (1996), Purser (2005), McPhail (2010) and Watson (2010) all argue that most higher education music instrument teachers have not received any training in pedagogy, with McPhail (2010) describing this cohort as “musicians who happen to teach” (33). Nevertheless, in recent years this situation has started to change. For instance, recruitment practices in some higher education institutions have included the need for prospective teachers to demonstrate – or at least explain – their pedagogical skills and know-how (Abeles, 2011; Hanken 2008), higher education courses often include one or more units in pedagogy for students (Parkes & Daniel, 2013), and communities of pedagogical practice have also been promoted and developed within some institutions for staff working in the studio (Carey & Grant, 2014; Carey, Grant, McWilliam, & Taylor, 2013).

Nevertheless, the music instrument teaching field continues to feature minimal barriers to entry and no regulatory requirements to have studied pedagogy, with most current higher education practitioners being highly trained performers who chose to move into a teaching role (Burwell, 2013; McPhail, 2010; Persson; 1996). Hence, those that progress through to teaching music instruments at the tertiary (university) level are likely to be influenced by previous teachers and learning

experiences, thereby perpetuating the master-apprentice cycle, a view which continues to be referenced in recent literature (Carey & Grant, 2014; Harrison & Grant, 2015; Juntunen, 2014; Parkes & Daniel, 2013).

Literature Review

The one-to-one lesson has, in recent years, attracted significant research attention and focus (Burwell, 2015; Carey & Grant, 2015; Carey et al., 2012; Gaunt, 2011; Perkins, 2013). This has, to some extent, been due to its elusive nature, the difficulties in evidencing the specific educational outcomes that occur within this format for learning, as well as the growing need to justify its very high cost to the institution in an increasingly pressured funding environment (Carey et al., 2013; Carey & Grant 2015; Grant, 2013). More specifically, Carey and colleagues (2013) describe how “the case for arguing the quality of pedagogical practices in the conservatoire [can] no longer rely on the untested but widely held assumption that greater performer – the “maestro performer” – would be *ipso facto* “the maestro teacher” (149). In recent years there have been numerous studies that analyze the interactions that occur within the studio lesson, be this through video analysis, observation, surveys, or interviews (for example Burwell, 2015; Daniel, 2006; Henninger, Flowers, & Council, 2006; Juntunen, 2014; McPhail, 2010; Nielsen, 1999, 2006). There is, however, a lack of research that specifically explores the views of current higher education music instrument teachers in terms of what they describe as the key influences that reinforce their work in the studio.

The notion of the master-apprentice relationship playing a key role in the studio setting in music has been acknowledged and considered by a number of authors in recent years. For example, in exploring practices at one music conservatoire in Scandinavia, Nielsen (1999) engaged in an in-depth theorization and analysis of apprenticeship on the basis of Lave and Wenger’s (1991) theory of situated learning and the community of practice that is common to these types of institutions. In foregrounding his research, Nielsen (1999) refers to the tradition in music where current teachers have learned from previous great teachers, describing how the master serves “as a role model ... [and] as a source of identification” (105), with students typically engaging in imitation of the master’s demonstrations or actions. Similarly to Nielsen (1999), Burwell (2013, 2015) and Johansson (2012, 2013) refer to demonstration and imitation as being frequent in the studio and a key influence on how teaching and learning take place. On the other hand however, Burwell (2015) describes how the master-apprentice relationship “gives rise to a paradox: that the development of critical or evaluative thinking would

seem to conflict with the trust and authority essential to success” (10-11). McPhail (2010), Johansson (2013), Thorgersen (2014) and Long and colleagues (2014) agree, the latter describing how critics of the master-apprentice learning model “argue that independent learning, interaction, and creativity are stifled” (176).

The master-apprentice relationship is not unique to music, given it has a history and application in such diverse areas of practice including design (Bender & Vredevoogd, 2006; Ghassan, Diels, & Barrett, 2014), creative writing (House, 2015), crafts (Calvert, 2014), cuisine (Stierand, 2014), sciences (Dysthe, 2002; Lam & De Campos, 2014), visual arts (Simonton, 1984), higher degree research supervision (Frankland, 1999), medicine (de Vries et al., 2015; Van Bodegom, Hafkamp, & Westendorp, 2013,) and tailoring (Lave, 1982). The master-apprentice tradition and process is also cyclical, for example Lave (1982) refers to how in the field of tailoring the apprentice “moves from the status of novice to that of master tailor” (182). Recent literature, however, demonstrates that the master-apprentice model of learning is being placed under increasing scrutiny (Allsup, 2015; Rakena et al., 2015), given students learning in this system typically have “little control over the content, pace and direction of learning” (Harrison & Grant 2015, 558). Harrison and Grant (2015) go on to argue that, given the increasingly diverse student body undertaking higher degrees by research for example, there is a need to “break down the hierarchical master-apprentice model” (563) and in fact consider horizontal approaches to learning.

In terms of when students who are learning to become advanced music performers move into teaching, the literature demonstrates that many commence while studying or shortly after they finish (Burwell, 2015; Mills, 2004). Others are invited to start teaching by peers or by institutions seeking to recruit high-level performers (Haddon, 2009; Parkes & Daniel 2013; Wexler, 2009). In three recent studies that canvassed tertiary level music students’ views on their future, each demonstrates that many students view teaching as being a definitive part of their career (Fredrickson, 2007; Rickels et al., 2010; Welch, Purves, Hargreaves, & Marshall, 2010). In another study, Parkes and Daniel (2013) found that of 171 current higher education music instrument teachers sampled at the time, not all were in fact planning on commencing a teaching career, with the majority focused on being performers during their studies at the higher education level. Of the 171 teachers in their study, Parkes and Daniel (2013) found that previous teachers were a major motivational influence for those deciding to work in the studio, although in the study Parkes and Daniel did not explore current influences for this group of teachers.

In general, there is consensus in the literature that as generations of apprentices move into teaching, they rely on previous experiences to inform their

pedagogical strategies (Burwell, 2015; Carey & Grant, 2014; Gaunt, 2008; Slawsky, 2011). Georgii-Hemming, Burnard, and Holgersen (2013) also describe how music instrument teachers are influenced by their know-how as performers and musicians rather than specific skills in pedagogy. Johansson (2013) agrees, describing how “musicians who go through the master-apprentice system of one-to-one tuition and continue as performers/teachers rely on their role models, on their experience and ability for developing a pedagogical practice” (58). More explicitly, Juntunen (2014) argues that music instrument teachers “tend to teach as they were taught” (158). In addition, for those that are recruited to teach in higher education, Burwell (2015) refers to how the isolated nature of the one-to-one studio means there is limited opportunity for those in the role to “identify and share good practice” (12-13), hence they rely on previous and current experiences to guide what they do in the studio.

While there are recent moves to place a stronger emphasis on the importance of research and evidence-based practice in higher education music instrument teaching (Carey & Grant, 2015), the history and traditions that underpin the master-apprentice learning relationship result in a current point of tension within the sector. Zhukov (2012) is of the view that there is an “unwillingness to embrace effective 21st-century teaching strategies” (467), which Duffy (2013) explains as a general resistance to change and which Perkins (2013) argues stems from the traditions, hierarchies, and power structures that are common to conservatories in particular. In addition, in the area of K-12 music teaching in schools, the literature (Nichols, 2013) points strongly to the fact that teachers should not in fact teach how they were taught, but rather ensure they are up to date with the latest pedagogical methods and technological developments. Hence, Johansson (2012, 2013) continues to argue the need for ongoing research to better understand the complex nature of the one-to-one relationship and master-apprentice tradition in music, reflecting an earlier view by Nielsen (1999) who described “the general neglect of issues of apprenticeship learning in educational psychology” (232). Carey and Grant (2014) agree, arguing that despite progress in the sector, there remains a need to explore “better systems of professional training and development for instrumental and vocal teachers” (43).

Method

The literature continues to evidence the fact that many current music instrument teachers in higher education have no formal training in pedagogy and that the studio lesson remains strongly influenced by the master-apprentice tradition. The authors therefore set out to explore music instrument teaching in higher

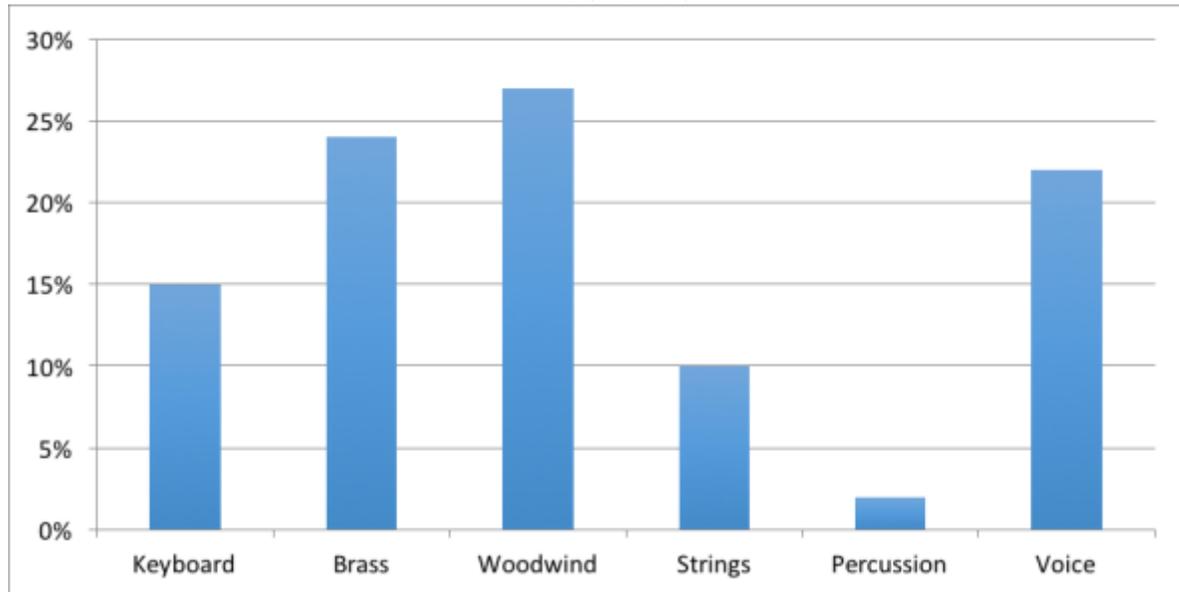
education further, and in order to do so and reach a wide population we devised a survey that would enable a response to the following two research questions:

1. Against the backdrop of the master-apprentice tradition, to what extent is there direct evidence that music instrument teachers in higher education do in fact teach the way they were taught?
2. In describing the key influences on how they teach, to what extent are there any noticeable differences between those with formal training in pedagogy and those without?

The survey was constructed in two parts: the first containing items about teaching, and the second part asking demographic questions. This study reports specifically on the analyses and findings of a subset of survey items (please see Appendix) designed to enable a response to the above two research questions. After being granted ethics approval in June 2014, the authors constructed a list of email addresses of studio music instrument teachers teaching at major music performance institutions. These institutions were listed as nationally well-known for their music performance degrees and teachers. This list of email addresses was drawn from four main regions: USA, Australia, New Zealand, and Southeast Asia.

The initial list for the USA included 2493 teachers, so a randomized stratified list was generated by assigning all cases a random number. The entire list was ordered first alphabetically by stratum (school name), then by random number assigned to the cases, smallest to largest. This put them in random order within an alphabetized school/institution list. We wanted 10% represented from each school, so 10% were pulled from each stratum. A new randomized list of 250 was used to contact studio music instrument teachers in the USA. We included all teachers on the lists for Australia (n=180), New Zealand, (n=46), Thailand, (n=42) and Korea (n=20). This allowed us to directly contact 538 teachers. Eighty-three teachers responded to the survey, and 54 actually completed all questions, giving us a response rate of 10%. This rate was an improvement on our previously reported rates of 6.4% (Daniel & Parkes, 2015; Parkes & Daniel, 2013; Parkes et al, 2015), with this population of respondents who are notably difficult to engage in research studies. Of the fifty-four responses, the most responses came from Australia (n=25, 46%) and the USA (n=22, 41%). Thailand had four responses (8%), New Zealand had two (4%), and Korea had one respondent (2%). This mirrors the numbers of individuals solicited from these five areas, and while our findings are not generalizable—especially for the Thailand, New Zealand and Korean areas—we can have some confidence in the trends seen across this sample. Given the differences in sample sizes between the countries and

Figure 1
Instruments



our research questions, we did not analyze the data to examine between-country differences.

Throughout the latter half of 2014 we reminded and encouraged teachers on six occasions to complete our survey over a six-month period, and we undertook analyses early in 2015. The data relevant to this study were divided into quantitative or qualitative findings. The quantitative data provided demographic and descriptive rankings of issues pertinent to music instrument teachers in higher education which are presented as descriptive data with mean scores and percentages. The qualitative data (open-ended responses to our items) were analyzed first with a basic content analysis (Patton, 2002) and then a further analysis of phenomenological reduction. This can also be described as horizontalizing, a process that requires giving each statement equal value. We developed a list of non-overlapping and non-recurring statements, which have been called horizons by Moustakas (1994). From the horizons, we developed themes which were formed from the data. The themes developed from working independently and together as co-authors; we labeled themes separately in word documents as lists, then we met to discuss and refine the themes as they emerged from the lists. The essential layers emerged (Moustakas, 1994) as theme categories, and from there we also completed some basic frequency counts to determine how many teachers expressed a statement in each theme. To establish trustworthiness, we debriefed at regular intervals to discuss the themes and how we were categorizing them to be sure we were in agreement of the intention of the participants' words.

Findings

We asked several demographic questions of the participants, which illustrate their instrument, type of institution, level of education, and teaching load. Figure 1 illustrates the types of musical instrument they teach.

The respondents were mixed in terms of the types of institutions they worked within: public university music departments ($n=22$, 41%), conservatoriums ($n=21$, 39%), private university music departments ($n=5$, 9%), private music schools ($n=3$, 6%), and other types such as conservatoriums within public universities or music colleges ($n=3$, 6%). The respondents reported that their studio teaching took an average of 39% of their work week, with administration an additional 16% of their time. Other teaching (ensembles, classes) used 15% of their remaining time, as did personal practice (15%); performing (13%) took up least time in their schedules, but this may not have reflected rehearsal time outside of personal practice. Respondents reported how many hours they spent teaching and nine percent ($n=5$) reported a heavy load of 21-30 hours a week. Forty-six percent ($n=25$) reported 11-20 hours each week, and forty-four percent ($n=24$) spent 1-10 hours teaching. Over half of the respondents had more than 10 years teaching experience teaching at the tertiary level in the studio, as illustrated in Figure 2.

We asked them about their level of education, and Figures 3 and 4 reveal that just over half had a degree in

Figure 2
Years Experience

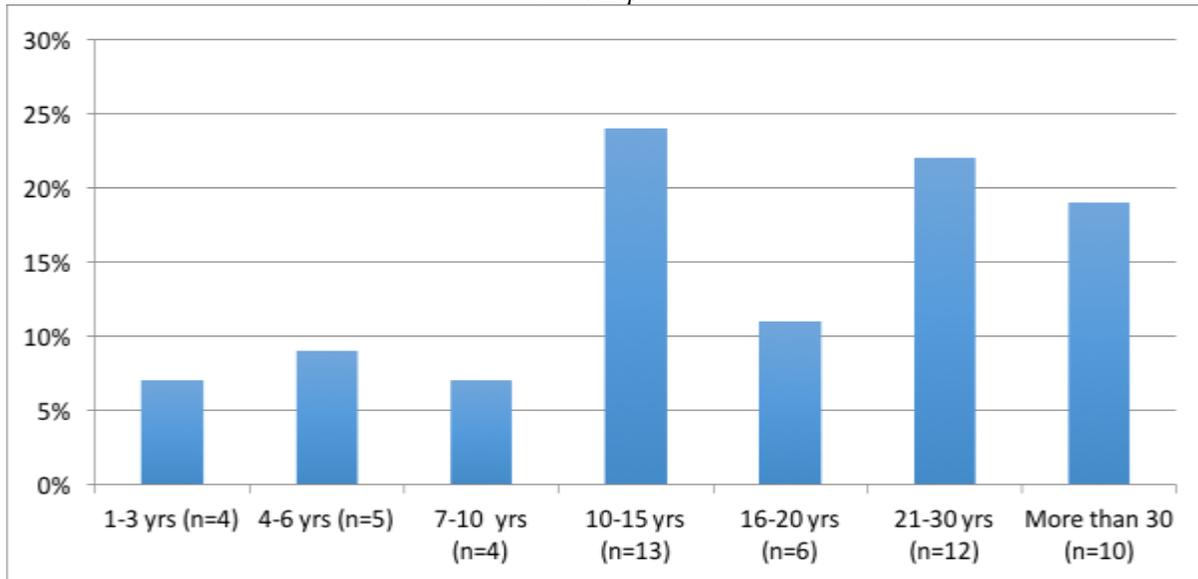
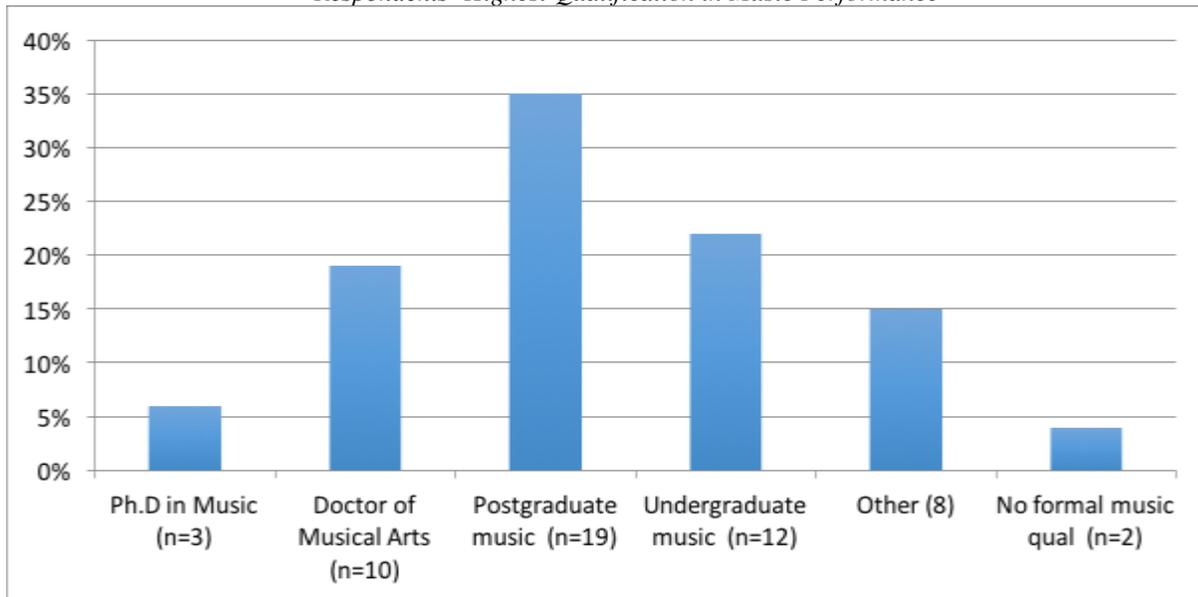


Figure 3
Respondents' Highest Qualification in Music Performance



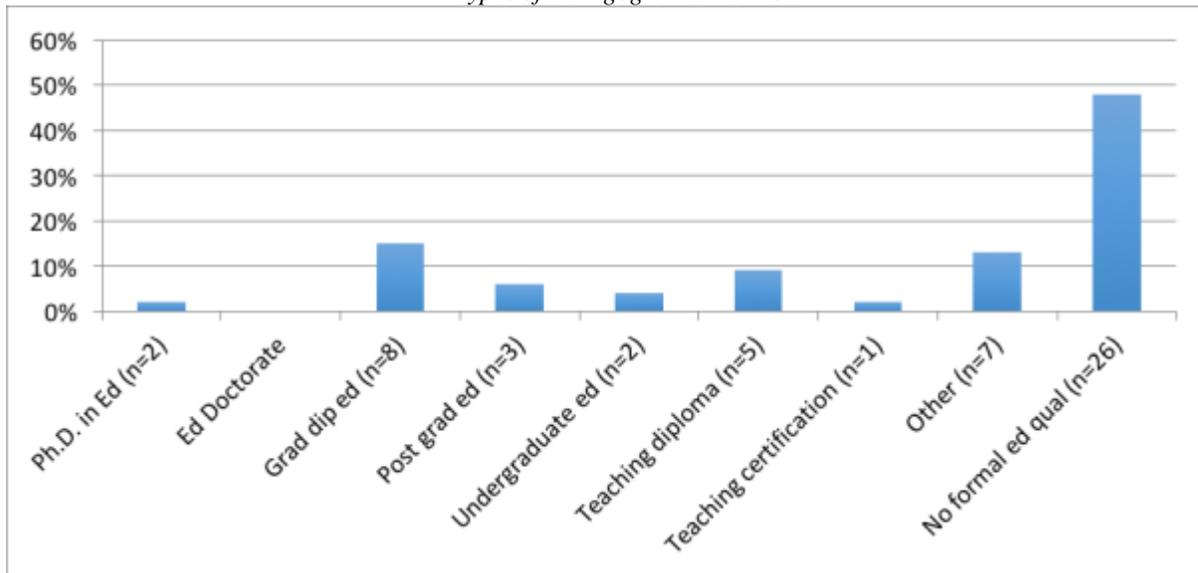
performance only (n=28), while 26 had additional education in pedagogy. Figure 3 overviews the respondents' highest qualification in music performance.

The types of degrees listed for "other" included PhD in music (not performance) and European labels for post-graduate degrees in music (for example, Hochschule work and Statsdiplom), along with institution-specific language for a music degree. There

were only two individuals without formal music performance qualifications. Figure 4 below then overviews the highest level of training the respondents received in the area of pedagogy.

As illustrated in Figure 4, twenty-eight respondents (52%) had specific pedagogical training. The types of "other" pedagogical training or education that the respondents (n=7) reported were mixed. Some reported

Figure 4
Types of Pedagogical Education



coursework at the undergraduate level or in learning about musician injuries. Conferences and workshops were also listed as “experiences” where respondents learned how to teach. Courses about education taken as part of doctoral music performance degrees were reported as were experiences such as teaching junior students as a teaching assistant. While the seven (13%) who cited “other” reported mostly informal forms of pedagogical education, 39% of respondents indicated they had formal training through degrees or other forms of certification. The data also clearly show that forty-eight percent (n=26) of the respondents had no formal training in pedagogy.

To specifically answer the first research question, “To what extent is there direct evidence that music instrument teachers in higher education do in fact teach the way they were taught?,” we analyzed data from two key survey questions. The first required respondents to rate a series of potential influences on their teaching using a scale. As part of the analysis we examined differences between teachers with pedagogical training and those without; we therefore report the data as a whole and for the two groups. Following an analysis of this quantitative data, we then analyzed the qualitative data provided by the respondents when asked to give a written explanation further unpacking the key influences on their teaching approach within the studio. These data were coded and are presented by themes.

The quantitative data (Table 1) reveals respondents’ rankings of influences on their current teaching, using a rating scale of 1 as the strongest

influence to 10 as the least influence. The data is presented in terms of the overall mean, as well as for those with and without pedagogical training.

In terms of those respondents that provided additional “other” influences, these were:

- Reading journal and books on teaching and performance issues (self-education)
 - New research into applied research in learning and teaching historically informed performance “guided exploratory learning” even in studio model. Studio teacher as research supervisor even at UG level rather than old apprentice model.
 - Experience gained as a performer*
 - Learning from and observing great teachers in other fields*
 - My years as a professional performer*
- *These respondents had no formal training in pedagogy.

Table 1 reveals that the most important influence was, “My years as a student – previous teachers who I wanted to emulate”; of second importance was, “Learning on the job by doing it”; and of third importance was, “My years as a student – one particular teacher that I have modeled my teaching after.” Therefore, there is clear evidence that former teachers have a major influence on the ways in which current practitioners work in the studio. In addition, there were no major differences between the two groups in terms of how they rated the various influences, although those

Table 1
Influences on Teaching

Influences	Min value	Max value	Variance	SD	Overall M n=54	M (Ped training) n=28	M (no ped training) n=26
My years as a student – previous teachers who I wanted to emulate	1	8	3.12	1.77	2.46	1.92	2.42
My years as a student – one particular teacher that I have modeled my teaching after	1	8	4.23	2.06	3.19	3.07	2.69
My years as a student – bad teaching experiences that I now strive to avoid in my own style	1	8	3.78	1.95	4.91	5.03	5.27
Education – specific classes or training in pedagogy	1	8	3.42	1.85	5.11	4.55	5.58
Learning on the job by doing it	1	7	2.79	1.67	3.04	3.16	3.00
Professional development – specific conferences or classes/workshops	2	8	2.37	1.54	5.17	5.17	5.35
Observing colleagues teaching	2	7	2.26	1.50	4.76	5.25	4.62
Other (please describe)	1	8	3.18	1.78	7.37	7.64	7.08

Note: all 54 participants ranked all influences.

*Weighted means for each category of pedagogy training were calculated and averaged for Pedagogical Training mean

Table 2
Influences on Teachers with Pedagogical Training Separated by Level of Pedagogical Training

Influences	Ph.D n=2	Grad Dip n=8	Post Grad n=3	Undergrad n=2	Diploma n=5	Teaching Method n=1	Other n=7
My years as a student – previous teachers who I wanted to emulate	3.50	1.75	2.33	2.00	2.00	1.00	2.43
My years as a student – one particular teacher that I have modeled my teaching after	5.00	4.00	3.00	2.00	2.00	2.00	2.71
My years as a student – bad teaching experiences that I now strive to avoid in my own style	3.50	5.13	4.33	5.00	5.00	6.00	5.57
Education – specific classes or training in pedagogy	3.00	4.00	4.67	4.50	4.50	8.00	5.14
Learning on the job by doing it	6.00	3.38	3.00	2.50	2.50	3.00	2.86
Professional development – specific conferences or classes/workshops	4.50	4.50	5.67	6.00	6.00	7.00	4.86
Observing colleagues teaching	6.50	5.25	5.00	6.00	6.00	4.00	4.43
Other (please describe)	4.50	8.00	8.00	8.00	8.00	5.00	8.00

with pedagogy training did rate “education” more highly than those without training. In order to further explore if there were any major differences amongst those with pedagogical training, Table 2 shows the results for the 28 respondents separated by degree or level of certification.

An interesting finding from the analysis in Table 2 is that the two individuals with PhD’s actually cite their pedagogy training as the main influence. While acknowledging that this reflects the view of only two participants, these individuals also have the smallest

range of ratings (3-6.5), potentially suggesting that they see a more balanced set of influences on their approach.

The open-ended question we analyzed required the respondents to describe to whom or what they attribute the main influences on their current approach to teaching. In many cases respondents' explanations covered more than one theme. Each statement was therefore coded accordingly. After we coded and decided on themes, we grouped them respectively into those who had pedagogical training and those who did not. Results are presented in Table 3.

As expected, the qualitative data in Table 3 show there is a strong influence of previous teachers and experiences of teaching among the cohort. For example, when explaining the main influence(s) on their current approach in the studio, respondents were often explicit in references to former pedagogues, e.g., "my previous singing teacher who studied this with her German-trained teacher," or, "those magnificent Maestros I had in music and life", or "learned it from many master teachers." Notable, however, is that only those with pedagogical training included details about how this had an impact on their approach, with statements such as "research about teaching methods," "study in psychology, including psychology of expertise acquisition," or "new leading edge research in learning and teaching." Experience in teaching and/or performing was also cited by many respondents as a current influence and regardless of level of training, with references to "many years of teaching and performing," a "25 year period of private teaching," or "my own experiences preparing for performances." Finally, some respondents specifically referred to their own personality or attributes as being a key influence on their teaching, for example "my personality," or "thought of it myself," or "my passion for music in general."

Discussion

It should initially be acknowledged that the sample of respondents involved is relatively small, and the Southeast Asian region participation was very limited. We are not claiming that our population represents all teachers in this setting. However, given the fact that the data comes from 54 current music instrument teachers in higher education from several countries, there is an opportunity to present a response to the two main research questions. In terms of RQ1—"Against the backdrop of the master-apprentice tradition, to what extent is there direct evidence that music instrument teachers in higher education do in fact teach the way they were taught?"—both the quantitative and qualitative data clearly evidence the influence of previous teachers and teaching experiences on the way in which practitioners currently work in the studio. Regardless of whether the respondents had training in pedagogy or not, previous teachers and/or one teacher in particular were ranked as two out of the three

strongest influences on how they currently teach. The other highest ranked influence was 'on the job' experience and the development of a practice through the nature of the work itself. Therefore, this study points clearly to the fact that the master-apprentice cycle remains a key element of the music instrument teaching landscape at the tertiary level, as does learning to teach through experience in the role. Not only are we able to see that teachers most likely teach in a way that is similar to how they were taught, but also we are able to determine that they recognize their former teachers influenced their work in the studio significantly.

In terms of RQ2—"In describing the key influences on how they teach, to what extent are there any noticeable differences between those with formal training in pedagogy and those without?"—there was a noticeable difference in that only the individuals with training in pedagogy specifically referenced this education as a current influence on how they work in the studio. That is, those without pedagogical training focused only on previous teachers, teaching experiences, learning on the job or their own style/approach when explaining why they teach the way that they do. While those with training in pedagogy continued to reference these same themes, it is clear that having pedagogical qualifications does in fact play a role in how some participants practice in the studio. In fact, a very tentative finding is that the more intensive the study in education, the more influential that study is, given that the two participants with a PhD in Education were the only ones to rank their pedagogy study as more important than previous teachers/teaching.

Hence, the findings of this study first point to the fact that the master-apprentice tradition continues to dominate higher education music instrument teaching. Second, the findings of this study continue to demonstrate that many current music instrument teachers have no formal training in pedagogy. Third, the data evidence the fact that, regardless of whether participants have or have not had formal training in pedagogy, former teachers, experiences of teaching, and learning on the job are major influences on current practice. In addition, when asked to explain in words the major influences on their current approach, it was only participants with pedagogical training that in fact cited this study as being a current influence. This research therefore extends previous literature in which claims were made about the influence of the master-apprentice cycle, albeit without direct evidence from teachers themselves to support this claim (e.g. Burwell, 2015; Juntunen, 201; McPhail, 2010). That is, this study—as far as we know—is the first of its kind that explicitly evidences both the cyclical nature of the master-apprentice tradition and the fact that many currently teach without any training in pedagogy.

Table 3
Analysis of Influences on Teaching

Key factors of influence on current approach to teaching	Pedagogical training (n = 28)	No pedagogical training (n = 26)
Former teachers and experiences of teaching	14	18
Pedagogy (training, research, inquiry)	7	-
Experience (teaching, performing)	14	9
Self (personality)	5	4
Other*		1
Not codable	2	1
Total codable comments	42	33

*This person stated "This is exactly the way my father, who was a high school wrestling coach, instructed his athletes."

The findings of this study therefore reveal the ongoing dominance of the master-apprentice tradition despite recent literature highlighting the fact that students have little opportunity to direct their learning in this setting (Allsup, 2015; Harrison & Grant, 2015; Rakena et al., 2015) and that it tends to rely on demonstration and imitation which has the potential to stifle creativity and the development of independent thinking (Johansson, 2013; Long et al., 2014; Thorgersen, 2014). This key finding also supports recent literature which proposes that there is a general resistance to change by those in the profession (e.g. Duffy, 2013; Perkins, 2013; Zhukov, 2012), while it also further challenges the assumption held by many in the sector that great performers are automatically great teachers (Carey et al., 2013). The findings of this study in fact suggest that the music instrument teaching sector in higher education is potentially not up to date with best practice approaches in modern pedagogy. That is, in the context of recent music education literature relevant to the K-12 music education sector, where it is in fact seen to be a problematic to teach how one was taught (Nichols, 2013), the findings of this study suggest that the music instrument sector is facing major challenges in moving towards an evidence-based mode of pedagogy informed by best practice and contemporary educational psychology or methods of learning. The findings of this study may also be useful to guide new research and reflection in other disciplines that use the master-apprentice model, such as those mentioned earlier in the paper: design (Bender & Vredevoogd, 2006; Ghassan et al., 2014), creative writing (House, 2015), crafts (Calvert, 2014), cuisine (Stierand, 2014), sciences (Dysthe, 2002; Lam & De Campos, 2014), visual arts (Simonton, 1984), higher degree research supervision (Frankland, 1999), medicine (de Vries et al., 2015; Van Bodegom et al., 2013), and tailoring (Lave, 1982). This study therefore reiterates the importance of recent calls in the literature for further research scrutiny (Johansson 2012, 2013), as

well as better systems of training and professional development for those especially in the music performance sector (Carey & Grant, 2014).

Conclusions

The master-apprentice tradition is likely to continue to be found in the field of music instrument teaching as well as in others areas of practice, given it has been adopted for centuries as a means by which to pass on learning and knowledge. While it represents a strong tradition and a link to previous teachers, who were in turn also taught by their previous teachers, it is arguably the beholding to this tradition that represents the biggest challenge for the sector in moving towards best practice models of learning. While there is certainly no guarantee that a qualification in pedagogy will result in effective learning and teaching, there is also no evidence to date that proves the master-apprentice tradition guarantees the best possible learning either. In fact, for decades it has been the case that only formally trained and accredited teachers are permitted to walk into a K-12 music classroom. Why is it still the case that the one-to-one studio exists as its own island devoid of regulation and scrutiny? As we continue to move into an era of accountability and the need for evidence-based models of best practice, leaders of higher music institutions will therefore be faced with critical questions. For example, for how long will it be acceptable to continue to employ high-level music performers without training in pedagogy? Given the isolated nature of the studio and potential for limited development of student independence and/or creativity in the master-apprentice model, what steps should be taken to place a stronger emphasis on scrutiny of practice or communities of shared learning? While there appears to be some progress across the sector in terms of moving this area of practice forward, this study would suggest that there is a great deal of further research and attention needed in order to create

better outcomes and opportunities for those involved in this important area of education.

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Appendix

Survey items:

Q5 Please rank the following experiences in terms of their influence on your current applied teaching approach (methods, style). Drag each statement to the rank, 1 = Top ranking; 8 = lowest ranking)

- _____ My years as a student – previous teachers who I wanted to emulate
- _____ My years as a student – one particular teacher that I have modeled my teaching after
- _____ My years as a student – bad teaching experiences that I now strive to avoid in my own style
- _____ Education – specific classes or training in pedagogy
- _____ Learning on the job by doing it
- _____ Professional development – specific conferences or classes/workshops
- _____ Observing colleagues teaching
- _____ Other (please describe)

Q12 Section 2: Background and demographic information. Please be assured your responses are anonymous. Please indicate the main instrument you currently teach (regardless of genre- e.g. jazz, baroque) in the applied studio in higher education.

- Keyboard (includes harpsichord etc.)
- Brass
- Woodwind
- Strings (includes harp, electric guitar/bass etc.)
- Percussion (includes jazz drum-set, kit etc.)
- Other (please list) _____

Q13 Please describe the type of higher education institution you work in

- Conservatorium
- Public university music department
- Private university music department
- Private music school
- Other (please list) _____

Q14 At how many higher education institutions are you currently employed?

- 1
- 2
- 3
- 4
- More than 4

Q15 During an average working week in your higher education (when students are attending classes), what percentage of your time is devoted to each of the following activities? (Note that these together must total 100% so please use 0 if there is nothing in one activity area)

- _____ Teaching in the applied studio in higher education
- _____ Other teaching (e.g. ensembles, master-classes, theory)
- _____ Administration
- _____ Performing
- _____ Personal practice or rehearsals

Q16 Please choose how many hours a week – on average - you teach in the applied studio setting in higher education

- 1-10
- 11-20
- 21-30
- 31-40
- More than forty

Q19 Which one of the following best describes your main current applied teaching position in higher education?

- Full time tenured professor
- Part-time lecturer
- Adjunct position
- Casual / sessional staff
- Visiting
- Other (please describe) _____

Q20 How many years have you been teaching in your current position?

- 1-3
- 4-6
- 7-10
- 10-15
- 16-20
- 21-30
- More than 30

Q21 How many years in total have you been teaching in higher education?

- 1-3
- 4-6
- 7-10
- 10-15
- 16-20
- 21-30
- More than 30

Q22 What is your highest formal qualification in music performance?

- PhD in Music Performance
- Doctor of Musical Arts
- Postgraduate degree in Music (e.g. Master of Music, Professional Diploma in Performance)
- Undergraduate degree in Music (e.g. Bachelor of Music)
- Other (please describe) _____
- No formal qualification in music performance

Q23 What is your highest formal qualification in education (pedagogy or teaching)?

- PhD in Education
- Education Doctorate Degree (e.g. Ed.D)
- Graduate diploma (e.g., Graduate Diploma of Education)
- Postgraduate education degree, (e.g., Master of Education)
- Undergraduate education degree, (e.g., Bachelor of Education)
- Teaching diploma or certificate (e.g., Trinity, Royal Schools, AMEB)
- Teaching method certification (e.g., Dalcroze, Kodaly, Orff, Suzuki)
- Other (please describe) _____
- No formal qualification in education (pedagogy or teaching)