AN EXPLORATION INTO THE IMPACTS OF MUSIC LEARNING EXPERIENCES ON THE MUSICAL PROFICIENCIES OF POPULAR MUSICIANS

Choong, H.

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HUEYUEN CHOONG

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Abstract

Musicians practising in the popular style in the 21st century differ from their predecessors in the 20th century, as the learning culture has evolved from an aural tradition to one that embraced the use of notation (and new technologies). Therefore, the music-making experiences of today's popular musicians are not just different from the past, but also less homogenous as well. However, not much is known about the disparities of musical skills, attitudes and values caused by the changing ways of becoming a popular musician. This study examines the varied modes of becoming popular musicians and the influence that the process wields on their developments through the construction of a mixed-method methodology that first obtained primary data through surveys from 133 participants. From there, eight purposefully selected participants took part in interviews and musical skills tests, to provide deeper insights into the quantitative data and in-depth understandings that explain their acquired proficiencies.

This research revealed that contrary to earlier accounts, a significant segment of today's popular musician community experienced reduced levels of autonomy and self-motivation in the learning process and many do not engage in peer-learning activities. Furthermore, learning tools made available by technology were becoming a staple, and for some, notation was core to their practices. Through further analysis of the findings, these characteristics were traced to musicians' engagements with formal training of popular music and the accessibility of knowledge through technological advancements. This evolution in the learning culture subsequently contributed to the emergence of diversities in practices, values and attitudes within today's landscape, which manifested itself in the disparities of musical proficiencies. A complete formal music learning experience was the least ideal in ensuring proficiencies in the various musical skills examined, while backgrounds with both formal and informal experiences were the most optimum. The original contribution to knowledge is the identification of tensions between formal and informal popular music learning, and this research will be useful to scholars of music pedagogy, scholars of popular music, music educators and the wider community of music practitioners.

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AUTHOR'S DECLARATION

I declare that this thesis is carried out as per the guidelines and regulations of the University of Westminster. All materials contained in this thesis are based my own work and appropriate credit has been given (directly or indirectly) where references have been made to the work of others.

Hueyuen Choong

DEFINITIONS

Ear-based practices	Musical practices that require the use of the ears to accomplish.
Formal context	Learning environments/situations within institutional walls that encompass structured and organised learning activities, usually with a teacher.
Informal context	Learning environments/situations beyond institutional walls that encompass self-learning activities.
Interviewees	Participants who took part in the interviews and musical skills test.
Learning routes	The variety of journeys taken to accomplish the aim of acquiring popular music playing skills: primarily referring to the four learning context categories.
Notation-based practices	Musical practices that require the use of any form of notation (standard or otherwise)
Participants	Popular musicians who participated in this study's survey.
Representatives	Interviewees who represented their particular learning context categories in the musical skills tests.

ABBREVIATIONS

FPML	Formal popular music learning
HE	Higher education
HEIs	Higher education institutions
HPME	Higher popular music education
IPML	Informal popular music learning
PbE	Play by Ear
PLAs	Peer-learning activities
PMIL	Popular music instrumental learning
PP	Prepared performance
PWCMT	Prior Western classical music training
SR	Sight-reading
WCMT	Western classical music training

INTRODUCTION TO THE STUDY

It is understood that the acquisition of musical skills is integral to the experience of learning to sing or play an instrument, and studies have been conducted to determine the relationship between certain pedagogies and musical skill proficiencies (discussed below). However, most of these studies took place outside the realms of popular music-making culture and only determined the immediate results of the pedagogies. This research thus aims to fill in those gaps by focusing on the relationship between the accumulated learning experiences of popular musicians and the musical skill proficiencies acquired. This chapter provides an overview of the study by explaining the background of the research questions, the objectives of the study, its significance and its limitations.

Background

Popular music had always been associated with the aural tradition, while notation played a secondary role and was generally avoided in performances (Jones and Rahn, 1977, p.83). This was because popular music and musicians in general prioritised emotion, expression, or feel, over the accuracy of playing the notes on the score or technique (Green, 2008, p.10), which incidentally were either difficult or impossible to encode in traditional notation (Tagg, 1982, p.41)**.** Some examples included blues, folk-rock and punk rock, where notation was never part of the culture or performance of the music[1]. Also, many popular musicians of the past turned away from formal music education for they found it difficult to relate to the music and musical practices involved (Bennett, 1980; Berkaak, 1999; Cohen, 1991; Horn 1984; Lilliestam 1996, cited in Green, 2002, p.5). However, that began to change when popular music and its practices were gradually absorbed into formal education since the 1960s.

As popular music education (PME) developed, it made one thing clear; the music learning backgrounds of popular musicians today have evolved, and this was observable in the

[1] That being said, the popular music scene does consist of musicians of various training backgrounds, as musicians cross over genres during their careers (Shuker, 2008, p.120).

examination of numerous studies that investigated popular musicians' music-making practices at various points in history from 1970-2014. As will be demonstrated in the next chapter, differences in popular musicians' music-making practices and attitudes were observed in each subsequent examination of the subject matter. Therefore, it is not inconceivable to speculate that the conclusions of past studies may not be reflective of the current situation; the most recent study conducted at the point this research commenced was published in 2014. Further, it is reasonable to assume that the learning experiences and music-making practices of popular musicians today are even more diverse. This diversity implied that many musicians in the popular music sphere today do not only play by ear but are also trained to be musically literate as a necessity for the development of musical competency. As most learning institutions place importance on notation as a starting point, today's musicians in the popular music scene differ significantly from their predecessors, as some of them are more comfortable learning and performing with notation. Subsequently, musicians that are more notation-reliant do not observe and analyse music the same way as their ear-playing counterparts (Rosings, 1981, cited in Tagg, 1982, p.42).

Based on pieces of evidence provided by Lucy Green (2002) on how popular musicians learnt, they can be divided into three categories (Figure 1): only formal music education background, only informal experiences, and a combination of both backgrounds. However, musicians within this 3rd group can be further sub-categorised into those that began with formal education, then came in contact with informal experiences, and vice versa.

<table>
<tr><th>First Category</th><th>Second Category</th></tr>
<tr><td>Only formal music education background</td><td>Only informal experiences</td></tr>
<tr><th colspan="2">Third Category</th></tr>
<tr><td colspan="2">A combination of both backgrounds</td></tr>
<tr><td>Started with formal education, then came in contact with informal experiences</td><td>Started with informal experiences, then came in contact with formal education</td></tr>
</table>

Figure 1: Categories of popular musicians based on Lucy Green's sample

There had been research that determined the facilitating and debilitating effects of ear-playing and notational skills on performance[2]. It was found that musicians who were fluent in both skills were generally able to perform more effectively in all given scenarios[3]. However, it is not certain if this finding can be translated to mean that popular musicians with both formal and informal learning experiences are more likely to acquire higher levels of proficiencies in various musical skills[4]. It is also not known if the engagement sequence of formal (notation-based) and informal learning (ear-based) had any significant effects. Even though earlier studies discovered that play-by-ear abilities benefit notation-related skills[5], it is undetermined if that benefit was dependent on the sequence in which notation training and ear development occurred. Would musicians who developed ear-skills after notation training experience similar effects on their notation-related abilities as those who learnt to read music notation after developing their ears?

There are studies that examined the sound-before-sight method of teaching music. As mentioned by Musco (2010), research had been conducted by Sperti (1970), Grande (1989), McDonald (1991), and Bernhard (2004; 2005) to examine and compare the effects between the rote-to-note approach to instrumental learning and the traditional notation-emphasised approach. This collection of research found that the experimental groups (rote-to-note) outdid the control groups (notation only) in all post-test assessments that tested their sight-reading skills, the accuracy of rhythm and melody, tone quality, technique, and interpretation/phrasing.

Smith (2006) also designed an experiment to examine the efficacy of 'non-traditional methods' (Abstract section)[6] of instrumental music instruction on the performance of middle school band students. In the experimental group, students learnt songs by ear first, before being introduced to the notation of the songs learnt, while students in the control

[2] Refer to Luce (1965), McPherson *et al.* (1997), McPherson and Gabrielsson (2002), Dickreiter (2003), Lehmann and McArthur (2002), Hayward and Gromyko (2009), McLucas (2011), Woody and Lehmann (2010b), Woody (2012), and Penttinen *et al*., (2013) for more information.
[3] Refer to McPherson (1995) and McPherson *et al.,* (1997) for more information.
[4] Gary McPherson's range of studies were conducted with teenage clarinettists and trumpeters trained in the art of classical music.
[5] Refer to studies listed in footnote 2 and 3.
[6] 'Non-traditional' in Smith's (2006) study strictly refers to methods that were unconventional to the classical music learning tradition.

group learnt the song directly from notation. The post-test results did not provide conclusive evidence that the experimental treatment affected the students' performances. However, Smith did note that the subjects had between 1-3 years of notation-based instruction in instrumental music prior to the study (p.25) and that there may have been "substantial proactive inhibition involved in the training to play songs without the use of notation" (p.44). This assertion correlated with Jones' (2014, p.3) study that examined how middle school band students with prior notation-based instruction fared with informal learning. It was discovered that it was difficult for them to break free from their formal learning habits.

Although most studies reviewed above concluded that the "sound-before-sight" approach yielded better musical results, three issues have been identified. The first, Sperti (1970), McDonald (1991), McPherson *et al.* (1997), and Bernhard (2004) sampled participants that had music learning experience prior to the experiments. However, it was not a factor in the analysis of the data. Based on Smith (2006) and Jones' (2014) findings, it was reasonable to assume that the subjects' prior learning experiences influenced the experiment results to some extent. The second issue was that post-tests were conducted immediately after a short period of treatment (10-32 weeks). That means that conclusions were made based on immediate short-term results. Bernhard (2006) in a follow-up test five months after his initial study, found that the significant differences between the experimental and controlled groups had "vanished". This subsequent study suggested that the results of the experiments conducted so far cannot be considered as conclusive long-term effects on the participant's skills. Smith (2006, p.51) also suggested that future studies should incorporate a more extended treatment period to ensure that the treatment would have more influence on the participants' performance skills. Lastly, these studies either sampled primary and middle school students who were learning music as part of their curriculum, or university students who were not music majors. Meaning, none of the studies so far have focused on musicians with (or aiming for) a performing career in the popular music scene, or those who had no formal training at all.

Problem Statement

As illustrated above, the development of formal PME changed the landscape of popular musicians' music-making practices from one that was primarily an aural tradition to one that encompassed the use of notation. This change, in turn, highlighted two separate issues. The first being the disparities in practices and attitudes between past and current popular musicians have yet to be examined. The second being the impact of this evolution on the proficiencies of musical skills commonly associated with today's popular music-making practices is not known. An inference based on the research discussed earlier could not be made as well, for these studies determined the results based on a short period of the prescribed pedagogy and did not factor in participants' prior learning histories. Meaning that the test results were not reflective of the participants' entire learning history (that may include informal learning experiences). Furthermore, the findings from the studies were not understood within the context of (aspiring) working popular musicians.

This research aims to address these issues by focusing the scope of the study to popular musicians and examine their musical proficiencies within the context of their entire learning histories, including the sequence in which formal and informal learning were engaged with. At the same time, the learning histories of current popular musicians will be examined against those of the past to determine the divergences in music-learning and -making culture that have taken place.

Research Questions

The core objectives of this study are to explore the relationship between popular musicians' music learning backgrounds and the musical proficiencies that they acquired, and questions were consequently drafted to facilitate this endeavour. The exploration of this matter requires investigation into a wide range of factors, and these are translated into sub-questions which, incidentally, are individually significant, but ultimately serves the purpose of enhancing the understanding of the core investigation.

The drafting of the research question and sub-questions were based on the theory of social and contextualised learning, in that 'environment and social contexts shape one's learning', and there is 'a reciprocal determinism between environment, personality, and behavior' that 'influence one another while also shaping learning situations' (Psychology.org, 2021). The personalities of learners determine how they behave in learning situations. At the same time, a learning situation can cause learners to modify their behaviours according to their dispositions and inclinations.

To what extent do popular musicians' music learning experiences influence proficiencies in various musical skills?

RQ1. How do current aspiring popular musicians learn their craft, and to what extent do their experiences differ from their predecessors'?

To examine the learning experiences of current popular musicians with those from the past to demonstrate the evolution of learning culture that have occurred.

RQ2. To what extent can diversity in musical practices be observed in the current popular musician landscape?

To determine the differences in musical practices engaged with by popular musicians with varying backgrounds.

RQ3. To what extent do lived experiences influence routes of learning, aspirations, values and attitudes?

To explore the ways in which routes of learning, aspirations, values and attitudes were influenced by lived experiences.

RQ4. To what extent do the learning backgrounds of popular musicians influence the acquisition of musical skill?

To discover the ways in which sight-reading, play by ear, improvisation and prepared performance proficiencies could be traced to learning histories, practices, aspirations, values and attitudes.

Significance of the Study

This study will contribute to the body of knowledge on popular music instrumentalists and singers who play or sing Anglo-American popular music forms, their music learning- and -making culture (and its evolution), and the musical skills acquired in the process. It goes part way to addressing a gap in the areas of popular music learning culture and the efficacies of music pedagogies, and open doors for future research into these fields.

Limitations

There is no existing methodology that this study could adopt en bloc, rendering the need to develop a methodology (that suit the study's aims) informed by models from research that examined the music learning culture of popular musicians, and those that investigated the efficacies of music pedagogies. The limitation here is that the developed methodology is arguably a novel one that has not been empirically tested to determine its suitability, which runs the risk of diminishing the findings' validity. However, measures (such as a pilot study and other peripheral experiments) are taken to ensure the methodology's viability and robustness. Another limitation of the research is that it is a single-researcher study with no funding, placing limits on resources such as time, money and energy. These limits further constrict the study's methodology design as it must suit the research aim and fit within the researcher's practical constraints. Subsequently, this contributes limitations to the generalisability of the findings, for the study had to rely on volunteer participants, resulting in a sample that is dominated by musicians whose learning histories primarily took place in one country.

Structure of Thesis

The objective of this study is to determine the relationship between current popular musicians' musical journey and the musical proficiencies acquired through those experiences. This aim is accomplished by assessing existing literature on pertinent subject areas and obtaining primary data through a customised methodology, and is presented in this thesis through five chapters:

Chapter 1: Introduction to the Study

This chapter details the background of the study, problem statement, research questions, significance of the study and the limitations.

Chapter 2: Literature review

In this chapter, the researcher examines existing literature in 'popular music', learning culture of popular musicians and higher popular music education (HPME) to provide a framework in which to understand and contextualise the findings.

Chapter 3: Methodology

This chapter explains the development of the methodology (the approach, design chosen, and its rationales), sampling process, methods of data collection, data treatment and analysis, and the implications of the researcher as an instrument of interpretation.

Chapter 4: Findings and Discussions

This chapter will present all findings as per research questions, along with an in-depth analysis and discussion.

Chapter 5: Conclusion

This final chapter concludes the thesis by summarising the findings in relation to the research objectives, discussing key contributions to knowledge, limitations of the findings, suggestion for future research, and the significance and implications of the study.

LITERATURE REVIEW

To pursue the purpose of this study, it is necessary to situate the research within the context of literature in 'popular music', popular music learning culture and Higher Popular Music Education. Developing this framework helped established the boundaries of the research and provided the context in which to understand the findings.

Popular Music, Genres, and Popular Musicians

This research aims to study the learning experiences and musical proficiencies of popular musicians, but what is a popular musician? The surface-level answer would refer to those who performed and identified with any popular music genre or culture. That leads to the question of what is popular music, or rather what kinds of music fall under the banner of 'popular music'? The following paragraphs address these questions by considering how the term 'popular music' had been used in the past, the attempts to define and categorise popular music, the issues with existing definitions, the roles that music labels played in the field of popular music and the subsequent impacts of such definitional approaches. From there, this study would explain the rationale for the boundaries set and examine the gap in the definitional discourse.

Popular Music

According to Middleton (1990, p.3), the usage and meaning of 'popular' in musical contexts evolved over the centuries, but it always had something to do with 'the people'. Very often, this referred to the 'common people' and therefore, describing something as popular may have implied that it was 'inferior or designed to suit low taste'. However, the connotations of 'popular' began to change. In post-revolutionary America, 'popular' became a legitimating term under the influence of democratic ideologies. In contrast, in 18th century Britain, the term was used in a quantitative manner where it predominantly meant music that was 'well favoured'. By the early 19th century, 'popular song' was used in multiple

senses. On the one hand, it was used to describe songs for the bourgeois market[7], and on the other, under the impact of Romanticism, it was also considered synonymous with 'peasant', national' and 'traditional' songs[8]. Moving further along into the latter half of the 19th century, 'popular' was used to describe products of the music hall and later on to refer to mass market songs of Tin Pan Alley and its British equivalent. Many of these definitions of 'popular' persevered into the 20th century and were intertwined in a variety of usages. Middleton, citing Frans Birrer (1985, p.104), asserted that by this time popular music definitions could be placed into four categories (Table 1), which 'exist in combination as well as in pure form' (Middleton, 1990, p.4).

Variety of Definitions

Table 1: Four categories of popular music definitions by Birrer, as cited by Middleton

1	Normative definitions	Popular music is an inferior form of music.
2	Negative definitions	Popular music is music that is not something else (usually 'folk' or 'art' music).
3	Sociological definitions	Popular music is associated with (produced for or by) a particular social group.
4	Technological-economic definitions	Popular music is disseminated by mass media and/or in a mass market

Building on Birrer's categories, Middleton argued that two definitional syntheses had gained currency in everyday discourse and among scholarly approaches; positivist (quantitative) and what could be described as sociological essentialism (qualitative)[9]. These assertions were not without merit and were evident in works by Jones and Rahn (1977), Bennett (1980), Tagg (1982), Finnegan (1989) and Shuker (2012), to name a few.

[7] Implying that the songs were considered good by those whose opinions that mattered.
[8] 'Folk' would eventually replace 'popular' to describe these songs later in the same century.
[9] For explanation and flaws of both approaches, refer to Middleton (1990, pp.5-6).

Table 2: Criteria of popular music summarised from Jones and Rahn

1	Music that is mass consumed
2	Heterogeneous audience
3	Unpredictable listeners
4	Substantial business which produces and transmit the product
5	Efficient means of dissemination
6	Aural form of transmission
7	Secular/entertainment function
8	Aesthetically accessible
9	Emphasis on performer rather than composer
10	Standardised forms
11	Retains germane characteristics despite variation
12	Ephemeral nature

In Jones and Rahn's (1977, pp.82-85) attempt to define the boundaries of popular music, they determined twelve features/criteria to distinguish the popularity of any music (Table 2). Their approach appeared to be the most comprehensive in this context as it not only drew from all four definitional categories but also derived from both positivist and essentialist approaches. However, Jones and Rahn noted that their criteria were not perfect as some of them could be grouped together, and depending on the music being investigated, some criteria appeared to be more important than others.

Table 3: Four characteristics of 'popular' things by Bennett

1	Shared by entire communities
2	Require no prior training to appreciate
3	Anyone can come in contact with
4	Distributed widely

Bennett's (1980, p.3) definition of 'popular' was largely essentialist in its approach and sat primarily in the sociological category but drew from categories one and four as well (Table 3).

Table 4: Four characteristics of popular music by Tagg

1	Conceived for mass distribution to large and often heterogeneous groups of listeners
2	Stored and distributed in non-written form
3	Only possible in an industrial monetary economy where it becomes a commodity
4	In capitalist societies, subject to the laws of 'free' enterprise, according to which it should ideally sell as much as possible of as little as possible to as many as possible

Tagg (1982, p.41), when distinguishing popular music from art music, asserted four characteristics that set popular music apart (Table 4)[10]. His approach was arguably positivist in nature, and fell mostly within the technological-economic category, but also corresponded to the second and third categories and implicitly to the first category.

In Finnegan's (1989, p.104) ethnographic study of musicians in Milton Keyes, she described 'pop' music to be 'frothy', easy-listening, and had 'more childish connotations', when compared to 'rock' music. It was also reported that some musicians used 'pop' to describe their music as a way of distinguishing themselves from 'the wilder extremes of, say, heavy metal or punk (which they called "rock")'. At the same time, for some, it meant 'Top Ten (or Top Forty)' records, which they regarded as distinct from other popular styles, such as soul, jazz and rock. Finnegan's work provided an insight into the 'everyday discourse' of musicians, and it portrayed an image of popular music to be an inferior type of music (category one), commercially successful (category four), and as a means of distinguishing one music from other forms of music (category two). This portrayal demonstrated not Finnegan's own approach, but rather the musicians' perception of popular music. Some defined popular music from a positivist point of view, while others from an essentialist perspective.

Looking solely at the music, 'pop' was defined by Shuker (2012, p.99) by 'its general accessibility, its commercial orientation, an emphasis on memorable hooks, or choruses and a lyrical preoccupation with romantic love as a theme'. He took on the essentialist position and drew from categories one, three and four.

[10] For the characteristic differences between folk, art and popular music, refer to Tagg (1982, p.42)

Issues with Definitions

Several observations could be made from the literature discussed above. First, there was no consensus on how to define popular music. Even though some were more firmly placed in either camp, it was clear that all the literature cited so far were not exclusively positivist or essentialist in their approaches, and all attempts at defining popular music were drawn from a variety of combination of factors (compartmentalised into four categories by Birrer). These approaches demonstrated the complexity of the issue at hand; scholars and musicians alike have different perceptions of what popular music was or what it meant to them, and in extension, also suggested that people could not agree on how to define popular music.

Second, all definitions were plagued by their own imperfections. Each author's approach discussed so far, could be identified to have drawn from different combinations of categories as organised by Birrer, and each categorical approach presented issues of its own (Middleton, 1990, pp.4-5). Normative definitions relied on 'arbitrary criteria'. Negative definitions were faced with boundary issues, as there was no neat division between 'folk', 'classical' and 'popular' music, which was adequately explained by Jones and Rahn:

> '*Most music is either folk, or popular, or elite within a given cultural and historical context…the same piece can change position from time to time, but its position at any given time and within a given cultural grouping is relatively clear' (1977, p.81).*

Sociological definitions whilst seem to have addressed the gap left by musicological approaches, were not free from challenges either, because 'musical types and practices, even those of the most minority sort, can never be wholly contained by particular social contexts' (Middleton, 1990, p.4). Technological-economic definitions were faced with two separate issues. First, mass dissemination affected all kinds of music, not just those that were considered 'popular music' and could just as easily be treated as a commodity (for example: mass-produced and -marketed classical music). Second, 'popular music' was not necessarily only disseminated through mass media and could be 'structured as collective participation, rather than sold as commodity' (ibid., p.4).

As demonstrated by Middleton, definitions that fit nicely within the boundary of either one category, while appeared straightforward and direct in distinguishing music that was 'popular' from the rest, were not complication-free either; such simple definitions risked miscategorising certain music solely because it did or did not fit the required criterion. Holt (2007), while referring to genre, arrived at a similar conclusion; 'exclusive definitions are problematic because it is hard to find something in one genre that does not appear in other genres' (p.22). On the other hand, synthesising a definition that drew from multiple categories, while arguably more comprehensive in approach, increased the challenges faced at the same time[11].

Using Bennett's (1980, p.3) characterisation of the term 'popular' as an example, one of the criteria was that the music was aesthetically accessible and technically undemanding. She wrote that 'while elite musicians [were] required to train and pass tests, the status passage to rock music [was] easy – anyone who can manage to play in a rock group can claim that identity'. This statement, while true for some popular music, was arguably inaccurate for others such as heavy metal and progressive rock. Bennett also asserted that 'popular things' were 'shared by entire communities', but digital technologies have increasingly broken-down sociological boundaries; the use of social media and digital dissemination of music content meant that 'music scenes [were] no longer restricted to a specific physical locality' (Silver *et al.*, 2016, p.4). In other words, a music's sociological association could no longer be contained within a specific geographic or economic group, for the music or band from one part of the world or segment of society could easily be known by other communities regardless of geological or sociological boundaries (further discussion of this phenomena will be returned to in later paragraphs). Lastly, Bennett's (1980, p.3) definition also used 'popular' to describe things that 'anyone can come in contact with' and were 'widely distributed', which was referring to 'popular' in its quantitative sense; music that fit this criterion was created with commercial value as its primary intent.

[11] A notion that Jones and Rahn acknowledged of their 12 criteria model (1977, p.89).

Bennett was not alone in this regard (which led to the third observation). It was worth noting that some authors and musicians' definitions and perceptions were largely, or even solely referring to and built on mainstream Pop music; this included Tagg (1982), Finnegan (1989), Frith (2001) and Shuker (2012). The focus was on the commercial features of the music, either in its quantitative or qualitative sense or in some cases, both. Defining popular music in this manner actively excluded popular music and musicians who forged their identity on rebellion against or distinction from the mainstream as they saw commercial success as 'selling out'. Furthermore, not all popular music achieved popularity, 'with the most widely disseminated items in the mass media' (Middleton, 1990, p.5), or were 'only possible in an industrial monetary economy where it [became] a commodity' (Tagg, 1982, p.41), or produced for profit, as a matter of enterprise not art' (Frith, 2001, p.94), or Top Ten hits (Finnegan, 1989, p.104), or always emphasised on 'memorable hooks, or choruses and a lyrical preoccupation with romantic love as a theme' (Shuker, 2012, p.99).

Defining popular music in these ways painted a very narrow and incomplete picture of the vast array of diversity within not just the music, but also the people, the culture and the context. Jones and Rahn (1977, p.80) claimed that one of the shortcomings of writers' attempts to define popular music was a 'narrowness of vision', that when discussing popular music, they were 'talking about a special type of popular music such as pop songs, broadsides, Tin Pan Alley tunes or urban blues', and they would end up 'calling a part by the name of the whole'. Although Jones and Rahn were referring to writings about popular music in the early 20th century, their observation still rang true with more recent writings such as those cited above.

Fourth, one of the difficulties that scholars faced in their attempts to define popular music had to do with the term itself as 'it [was] part of a living language, not a strictly technical term' (Jones and Rahn, 1977, p.81)[12]. No authorities were regulating the language of modern music, which meant that meanings could change, definitions revised, and new terms invented (Finnegan, 1989, pp.103-104). Middleton's overview of what the term 'popular' represented since the 18th century demonstrated the changes in meaning; the

[12] There was also no equivalent term in some languages, which further complexes the problem; refer to Jones and Rahn (1977, p.81) for more details.

evolving definitions by different scholars and musicians were proof that definitions go through on-going revisions; the various jazz and rock styles were prime examples of new terms coined to distinguish one popular music from another. That said, it should be noted that numerous jazz and rock musicians refrained from identifying or associating themselves with 'popular music'. Shuker (2012, p.97) claimed that while the terms 'rock' and 'pop' were often used to refer to 'popular music', there was an inclination to contrast and polarise the two which generally revolved around the concept of authenticity[13]. DeVeaux (1991, p.526) on the other hand, asserted that jazz needed to be disassociated from popular music so as to frame jazz as 'an autonomous art of some substance'. This sentiment was best captured in statements by prominent jazz musician Wynton Marsalis.

> *'Rock isn't jazz and new age isn't jazz, and neither are pop or third stream. There may be much that is good in all of them, but they aren't jazz' (Marsalis, 1999, p.335).*
>
> *'People think I'm trying to say jazz is greater than pop music. I don't have to say that, that's obvious…jazz is not pop music, that's all' (Marsalis and Hancock, 1999, p.335).*

Though not specifically examining the definitional boundaries of popular music, the works of Christopher Cayari reinforced the need for constant revision of what 'popular music' meant. In the examination of the effects of YouTube and music-making, Cayari (2011) asserted that technology had changed the way music is created, shared and consumed (Cayari, 2011). The emergence of new technologies had 'enabled the internet to become an interactive media technology' and 'the ideas of music, musician, and audience have changed' as 'the users of technology shape the technology's purpose as the technology shapes the users' culture' (Cayari, 2011, pp.4, 6). From using YouTube to create, develop and sustain a musical career (Cayari, 2011) to the development of virtual performers, ensembles, music-making practices and communities (Cayari, 2018, 2020, 2021), his works demonstrated that popular music and its music-making practices may have transcended existing understandings of what popular music is.

[13] For more on this, refer to Shuker (2012, pp.98-101).

Genre

As demonstrated above, generating criteria to define popular music as a whole was a complicated matter in and by itself, but drawing boundaries within the banner of 'popular music' was no simple matter either. The most common and widely used organising principle in popular music was genre categories which Holt (2007, p.2) asserted at a fundamental level, '[was] a type of category that refers to a particular kind of music within a distinctive cultural web of production, circulation and signification'. Lena and Peterson (2008, p.698) on the other hand, defined genres more elaborately as 'systems of orientations, expectations, and conventions that bind together an industry, performers, critics, and fans in making what they [identified] as a distinctive sort of music'. The most succinct description came from Frith (1998, p.76) who wrote that 'genre is a way of defining music in its market or, alternatively, the market in the music'. As could be seen, the definition of genres in popular music correlated with its function in the field, and the above-cited definitions demonstrated that, unlike 'popular music', there was a common understanding of what 'genres' meant.

Genre Boundary Development and Its Complexities

While the definition of a genre was relatively straightforward, the process of establishing a popular music genre and its boundaries was complicated. According to Frith (1998, p.88), the process first begins with 'a complex interplay of musicians, listeners, and mediating ideologues', and from there, the wider music industry would start to 'make sense of the new sounds and markets and to exploit both genre worlds and genre discourse in the orderly routines of mass marketing'. By doing so, they had the power and the means to alter the 'dominant course of genre and styles' (Holt, 2007, p.26).

Holt asserted that major record labels had, on many occasions, pushed vernacular music into the mainstream, to the point that the 'core insiders' felt marginalised (ibid., p.26). The development of rock music in the 1970s exemplified this assertion; many young rock fans could no longer relate to the 'rock stars' they grew up idolising and felt deserted (Charlton, 2011, p.236; Coon, 1976). That 'brotherly rock fraternity' between bands and their followers diminished as the music became increasingly mainstream, and fans also felt that

the music had lost its ideological direction. Rock music thrived on rebellion, but now rock stars were 'bending over backwards to become acceptable' (Coon, 1976). Adjusting genres to the mainstream and creating crossovers were common practices in the corporate industry as major record companies needed to ensure that their artists appealed to a broader market to protect their financial interest (Holt, 2007, p.25). In addition to financially motivated 'genre adjustments', companies regularly organised music under non-musical category labels such as 'race records', 'world music', 'women's music', and 'student music' to target a variety of music to specific markets[14], and had the power to threaten the longevity of genres by reducing production when sales decreased (Holt, 2007, p.26).

Ultimately suggesting that the more popular the music became, the less control the core community had with regard to regulating the music they developed. However, Holt wrote that many bands and artists were attracted to mainstream success as well as 'smaller music spheres and categories that embody a different kind of authenticity and prestige' (p.17). This convergence added another layer of complexity to boundary setting; as musicians 'move back and forth and create fusions', the boundaries between them (mainstream and non-mainstream) become fluid (p.17). The direction of the popular music market could also have massive influence in the individual genre cultures. Holt explained this by pointing to how rock became so popular that it seeped into the markets of other genres until rock 'finally lost some of its genre identity and became part of the mainstream, a process that resulted in the label "pop/rock"' (p.24). On the other end, genres that incorporated rock characteristics could be said to have deviated from their own genre identities and further blurred the boundary lines between genres. One notable example would be jazz fusion in the 1960s when Miles Davis, John McLaughlin, and others combined elements of jazz with aspects of rock and funk.

Mass media also played a prominent role in genre development discourse as it was 'necessary for establishing broad genre networks' (p.27). As mentioned in the works discussed above, mass dissemination was a consistently identified characteristic of popular music. Jones and Rahn (1977, p.83) even went so far as to assert that the popularity of any

[14] For discussion on 'women's music' and 'student music', refer to Frith (1998, pp.86-87)

given music could be partially determined by the efficiency of its transmission. They claimed that 'generally, the more popular forms have been not only the most widely, but also the most cheaply, transmitted'. Therefore, this relationship (music - mass media) had also elevated mass media's position in the construction and development of a genre and its boundaries. It was without a doubt that recordings were essential tools of circulation in popular music; all musical details were stored in and mass-transmitted with recordings. From phonographs at the turn of the 20th century to digital downloads and online streaming today, they all had essential features for genre construction as they were 'regulated, fixed, repeatable, and sold by category' (Holt, 2007, p.27). Therefore, sonic characteristics stored in a recording under a specific categorical label were subsequently associated with the said label, and in turn, played a part in the renegotiation of the genre's musical characteristics. In addition to that, as the creative process shifted into the studios in the 1960s, record producers and music marketeers increasingly played a more significant role (than the musicians playing the music) in shaping genre boundaries. This meant that 'the musical production of a genre occurred in close relation to the professional production of recordings' (ibid., p.27).

It may seem that, of the two stages of the process, the wider industry's involvement complexified the process of genre boundary setting, but Frith (1998, p.88) contended otherwise by asserting that the first stage was 'much more confused than the marketing process that [followed]', and this was expanded upon by Holt (2007, pp.14-15):

> *'Categories of popular music are particularly messy because they are rooted in vernacular discourse, in diverse social groups, because they depend greatly on oral transmission, and because they are destabilised by shifting fashions and the logic of modern capitalism…yet another factor is that some of the main sites of popular culture are still "the street" and other social spaces where many value their relative independence from or even resistance to social authorities, educational institutions, and the music business'.*

Precisely because it was rooted in vernacular discourse, and its independence from outside regulating powers, that at this stage, even when identifying with the same genre label, the music's characteristics varied from band to band. With all these variables at play, it became challenging to draw convincing unquestionable boundary lines that distinguished one popular music from another, even without corporate interest involved.

Roles of Music Labels

Despite the arguments surrounding genre categories, it was still useful in many ways (as its definition suggested). Genre, either implicitly or explicitly, inferred certain characteristics, expectations and rules, which included, among other things, stylistic traits of the music, musical conventions and practice, ways of communicating meaning, visual style, ideologies, behaviours, attitudes and values, primary audiences, and institutional practices (Fabbri, 1982, pp.3-6; Frith, 1998, pp.91-93; Holt, 2007, pp.23-24; Shuker, 2012, pp.96-97). As such, these genre characteristics, expectations and rules 'profoundly [organised] the music industry' (Silver *et al*., 2016, p.1).

However, Silver *et al.* suggested that genre categories may be losing their importance. One of the reasons was genre 'marriages'; a fusion combination of two or more very different music genres, such as metal-rap, rap-folk or Nintendo Core. They argued that such combinations would become more common[15], and 'as genre categories approach infinity, their capacity to constrain behaviour would approach zero and in effect genre classification itself would be meaningless'. The other culprit responsible for weakening the reliance on genre boundaries was the ever-advancing digital technologies. As already discussed above, digital technologies have demolished the restrain of music scenes to a specific geographic location or societal segment, as any music from any band could now be accessed by anyone. This made it possible for 'musicians working anywhere to know about, influence, and remix each other's work, regardless of genre or sub-genre'. Furthermore, online music stores were 'essentially unlimited in size' which allowed infinite ways to categorise the music that was offered, including those based on algorithms that predicted consumers' musical preferences based on 'past choices of similar consumers or analogies between a purchased song and other songs' (ibid., pp.3-4). With the vast amount of user data that social networking sites could provide, the music industry may now look to information from social networking sites instead of genre labels to inform their marketing strategy.

[15] Reasons for increased genre differentiation can be found at Silver *et al.* (2016, pp.3-4)

Setting the Boundaries of 'Popular Musician'

Based on the literature reviewed so far, it was not unreasonable to say that to this day, popular music had eluded unanimous definition, its external and internal boundaries increasingly blurry, and arguably losing its significance in popular music discourse, which may incidentally paint 'popular music' as a subject not worth the time and effort to define, as attempts to do so presented more challenges than resolving them. Be that as it may, a workable definition still had its uses, Jones and Rahn (1977, p.80) put forth a conceivable argument for defining popular music regardless of the challenges. They asserted that the ability to distinguish one music from another 'might facilitate discussions among students of different types of popular music', and 'reevaluations of definitions could well change the face of research into and talk about, popular music'. Also, though it may seem plausible that genre classification would eventually lose its significance in popular music, sociological literature provided reasons to believe that 'genre categories should persist in structuring musical production and consumption'. Regardless of the changing times, major record companies and radio stations were still likely to rely on genre categories to determine how to allocate scarce resources. Musicians may continue to rely on genre categories to find collaborators, self-advertise and connect with audiences, while music fans were likely to continue relying on genre categories for identity formation and inter-personal relationships (Silver *et al.*, 2016, pp.3-4).

Therefore, while there was no wide consensus about what popular music was, boundaries must still be set in place for this study to progress. Rather than adopt or refer to previous definitions of popular music, a different approach was employed; defining the music boundaries based on the identity practices of the musician, instead of defining the identity of the musician based on the music played. The rationale for this was that there was not one definitional approach that could satisfy the boundaries that this paper intended to set, for all existing definitions were limiting in some ways (as discussed above) and were plagued by their own imperfections. Musicians who identified as popular musicians today played a wide variety of music that differed greatly from one another. Therefore, setting a boundary based on musical, cultural or geographical characteristics may unintentionally discriminate against those who played some form of popular music that unfortunately did

not meet the criteria of the boundary. As demonstrated in Finnegan's (1989) study, musicians themselves have a wide variety of understandings of what the term 'popular music' represented as well, and based on the literature examined above, these were often overlooked. Thus, as the point of the paper was to study the musicians, not popular music itself, this study took the opportunity to have their voices heard and set the boundaries of the study according to their identity practices.

Meaning, that rather than taking the high-handed approach of telling musicians what they were or were not based on the music that they played, the definition of a popular musician and subsequently the boundaries of popular music in this study would be informed by the musicians themselves; the variety of music played by those who self-identified as popular musicians and the musical boundaries that they set. As discussed above, the term 'popular music' was part of a living language, in which its meaning changes, and definitions revised or had its boundaries adjusted to accommodate those changes. Even genre boundaries were adjusted according to the wide variety of factors that they encountered during their development. Therefore, instead of continuing the cycle of revising definitions or adjusting boundaries according to existing approaches which were not free from drawbacks, this paper decided to cause a disturbance in the discourse and introduce a different, and arguably novel angle to examine what popular music is.

In terms of defining popular music, this approach was not perfect, for its only criteria (self-identify as a popular musician) may result in arbitrary boundaries that would have rendered them useless (on the surface). However, as demonstrated by Jones and Rahn's (1997) features of popular music, comprehensive criteria in itself were problematic as well. Despite the imperfections of this study's approach, it brought about some advantages; such an approach shed light on a whole range of considerations that have escaped the attention of popular music scholars (elaborated below).

The Gaps in the Definitional Discourse

As described above, definition and boundary setting attempts were approached from a variety of angles, but rarely did writers approach the subject from the perspective of

musicians. What did the musicians consider to be popular music? How did they define the music that they identified and engaged with? How did newcomers join the genre community? What sort of practices must they adopt in order to be accepted as part of that community? There are works of literature that answered these questions to some extent, but these questions were not explored within the context of defining popular music. When literature did study how popular musicians began their journey, it was done as an isolated study of the culture or musicians (refer below) and did not contribute to the discourse of defining popular music or genre distinctions[16]. The consequence of this was that the learning culture became lost to the discourse of defining popular music, and subsequently influenced 'outsiders' to only view and understand popular music based on a combination of its social, musical, and economical delineations, without consideration as to how the music was made.

Excluding the practices of popular musicians in the discourse was equivalent to dismissing it as an important aspect of popular music, and the impact of this exclusion was arguably the most visible in the induction of popular music into formal music education. When offering the study of popular music in institutions, these programmes used the term 'popular music' without adopting the practices that came along with it, and instead taught the music with pedagogies that mirrored their classical counterparts. This resulted in a ripple effect; those who went through the formal route to learning popular music had different experiences of becoming a popular musician from their informal contemporaries, which resulted in popular musicians who entered the industry with very different skills, values and attitudes. This development, in turn, required re-negotiation of what it means to be, and how to become a popular musician.

Scholars and practitioners currently within the field of popular music studies have become increasingly aware of this issue and propagated efforts to align their students' learning experiences with their contemporaries who developed within the community of practice but outside the confines of the formal classroom; this included Björnberg (1993), Lebler (2008), Hewitt (2009) and Parkinson and Smith (2015). However, the fact that the practices

[16] Recently, scholars such as Holt (2007) and O'Flynn (2006) have attempted to bring the discourse and understanding of popular music genres 'closer to musical practice and experience' (Holt, 2007, p.7).

of popular musicians were excluded in early attempts to provide formal learning of popular music pointed towards the gap in popular music definition discourses. As it was not part of the discourse, it was not considered a defining trait of the music, and therefore replaceable. Maybe similar to jazz, the acceptance and validity of popular music as a subject worthy of serious study took precedence over how it should be taught (Gatien, 2009, p.104). However, if the practices of musicians were argued to be defining characteristics of popular music on the outset, the landscape of formal popular music studies would probably have developed very differently.

That being said, this could be considered a blessing in disguise. If popular music were not taught the way it was in a formal situation, then there would not be efforts to explore the practices of popular musicians, or to bring to light the deficiencies of traditional pedagogies in the context of popular music, or to realise the benefits of informal learning practices. The formal teaching of popular music triggered research interest into popular musicians and their practices, and how formal music education might benefit from it. However, this development happened outside the confines of popular music definition and genre boundary setting. As briefly implied above, and will be demonstrated below, a chronological analysis of literature on the journeys of becoming popular musicians indicated that the practices engaged with evolved with the formalisation of PME. However, this development did not have much effect on the discussions of the term 'popular music'.

Summary

It was not the intention of this paper to argue or compare the validity of popular music or genre definitions, but rather to demonstrate the unsuitability of existing approaches in fulfilling the intentions of this study. Therefore, a novel approach of boundary setting, based on the expectations of popular musicians instead, was advocated. It was acknowledged that such an approach was not flawless. However, it was argued that this approach was most suitable as the research aimed to study individuals who identified as popular musicians (regardless of the types of popular music they played), rather than studying individuals who played only certain types of music that were considered 'popular' (however it was defined). Also, the consequence of this approach would generate scholarly

interest into the identity and music-making practices of popular musicians within the discourse of defining popular music.

Popular music learning culture

Although as an isolated aspect, the learning experiences of popular musicians have captured the attention of scholars since the 1970s. Some notable studies include those by Bennett (1980), Finnegan (1989), Cohen (1991), Green (2002), Lebler and Carey (2008), Robinson (2010), and Mok (2014)[17]. Through a chronological review of each piece of literature, it will be revealed in the following paragraphs, that each subsequent study into the learning culture of popular musicians captured data that exposed the changes that occurred over the years. It should be pointed out here that of all the literature cited above, those by Green (2002) and Robinson (2010) examined the culture in the most detailed fashions, and further discussions in the next chapter will reveal how their works informed this study's methodology.

The literature listed above were chosen based on this study's aim to better understand popular music instrumentalists and singers who play or sing Anglo-American popular music forms and took on roles that in some ways or another, fell under the scope of either session, covers and/or originals musicians. The range of drummers in Bill Bruford's (2019) study titled *Learning experiences of Expert Western Drummers: A Cultural Sociological Perspective,* who acquired their expertise through formal and informal learning experiences, are prime examples of popular musicians this study was interested in. Therefore, studies that examined other forms of musical occupations and their histories were omitted.

[17] The omission of Smith's (2013a) *I drum, therefore I am* in this review was due to its proximity to Robinson's (2010) study in terms of time period and demography, and the practices (that this study was interested in) described in both works bore many similarities. Thus, the omission of Smith's findings should not be perceived as a comment of insignificance of his study on the subject matter, as his findings on the subject will be discussed in the 'Findings and Discussion' chapter.

From 1970-2014

On Becoming a Rock Musician

Bennett's (1980) work described the journey a person generally went through to become a rock musician in the US between 1970 and 1972. In a nutshell, the process consisted of activities such as forming a band, copying recordings by ear, group rehearsal of the music and finally, composing a song list for the gig. Unlike Western art musicians who learnt to play the music by learning to interpret a music score, Bennett reported that rock musicians would 'get songs' from a recording; essentially using their ears to identify sounds they heard from the recording and attempted to reproduce those sounds on their instruments. It was also noted that this was a private activity, without guidance from a more experienced musician (1980, p.134); basically, teaching themselves to play the music on their instruments. Bennett went on to assert the primacy of this practice by stating 'the career of a local rock musician [started] when the resource of the instrument [was] combined with the resource of The Music in a private copying episode' (ibid., p.135). From there, they would 'expand the song-getting experience to the group situation' (p.136); the band. Bennett wrote that the process of a band combining each part into a coherent musical performance was known as 'working-up' or 'getting down' a song and that it was 'the practice of the business of rock performance, and [included] the dual aspects of repetition and alteration' (pp.145, 148). The song would be rehearsed to a point where it was internalised and could be performed without hiccups, as it was common for them to 'work-up' a song one day but fail to repeat the same performance the following day (p.146)[18]. As a band, they would start to learn an entire song by dissecting it into parts, isolating each instrumental part, and dividing the song sequentially into 'copyable sections'. Once each instrumental line and song section was deemed acceptable by band members, the song would be put back together until the initial 'conceptual partitions which were constructed as an ordering or sequencing system so the song could be learnt in the first place' were 'forgotten' (p.148), or no longer needed.

[18] The difficulty to play a 'worked-up' song consistently in later performances may be argued to be the fact that songs were learnt entirely by ear and stored in the 'head' (similar situation to the head arrangements in Kansas City jazz in the 1930s), without any form of memory aid.

The Hidden Musician: Music-Making in an English Town

This study by Ruth Finnegan documented the varying musical activities, practices, cultures and learning systems that occurred in Milton Keyes during the 1980s. In terms of the conventions of popular, rock, jazz and folk music learning, it was reported that a majority of musicians identified themselves as completely self-taught, while some proclaimed to be mostly self-taught and either supplemented with or were initiated by some private lessons (Finnegan, 1989, p.137). It was common for them to develop the ambition to pick up an instrument to play after being inspired by 'a shared enthusiasm for some current popular number or player or by a friend or relation who played himself' (ibid., p.137). After acquiring the skills and knowledge to play a few basic chords or rhythms, they continued developing additional skills in a group music-making context. Generally, skill and knowledge were acquired and developed without the use of notation or written music but instead learnt by ear through attempts to emulate the sounds they heard in recorded music (p.138). However, occasionally there would be some 'initial use of chord charts as a basis for further development, often discarded later, or written or printed lyric sheets…reliance on notated music was uncommon among local rock, jazz, folk and country music bands' (p.139). Although it was common for them to learn through informal practices, some had experiences in both informal learning practices described above, and formal classical music learning, which Finnegan described as 'opposed forms of training' (p.141). Those that did begin with classical music would then move on to other forms of music such as popular, rock, jazz or folk. As a consequence, 'sometimes explicitly rejecting their classical experience', while other times 'making use of it while aware of the contrasts involved' (p.141); this was because the necessary skills in 'performance-oriented music' were not written musical theory or notation, but performance skills, which were learnt by ear (pp.138-139).

Rock Culture in Liverpool

Sara Cohen's (1991) ethnographic study of rock culture in Liverpool during the years of 1985-86 focused on two bands: 'the Jactors' and 'Crikey it's the Cromptons!'. Cohen did not discuss their learning experiences much, but the general sense from the discussions on how they created and rehearsed music, was that most of them did not have much or did not have any at all. None of the band members of the Jactors had any music training, and

none of them could read music; they were completely self-taught. One of the members Trav, taught himself to play the guitar and bass by referring to a chord book and 'Teach Yourself Bass' books, but the process of creating music and rehearsals were all done by ear as a collective (pp.138-139). The band noted that because of the lack of training, the composition and rehearsal process was long and exhausting for 'it involved so much repetition and experimentation and there was often lengthy discussions and disagreements over factors such as timing, counting and tuning' (p.141). At the same time, they found it difficult to 'put music into words and thus describe the music they made' (p.149). However, the benefit for being 'untrained' was that 'it produced a tremendous amount of inventiveness' and 'when ideas were translated, communicated and eventually played "in" they sounded impressive' (White, 1983, as cited by Cohen 1991, p.141). Though not explicitly indicated, the paragraphs on the musicianship of Crikey it's the Cromptons! implied that they did not have music training as none of them could read music, but the guitarist Dave had his own personalised notational system to transcribe what he had heard (p.160). The previous bassist Midi had piano lessons when he was younger, but he taught himself to play guitar and bass (p.158). There were mixed opinions about takings lessons and understanding notation though; the guitarist Tony had no interest in learning music notation, while the drummer Huw was keen to take lessons in drumming but could not afford them (p.158).

How Popular Musicians Learn

Lucy Green's study documented popular musicians' learning practices, values and attitudes, and the impact of formal music education changes that occurred in the UK over the span of 40 years (Green, 2002, p.9). It was reported that listening and copying was a central learning practice in popular music (ibid., p.73). Even though some musicians supplemented the learning process with notation and/or technical books, they were always secondary to learning the music by ear. Some musicians would have acquired music notation knowledge from previous formal classical music lessons, but there were instances (Steve) where notation reading was self-taught. Technical books or magazines when used, was always in the early stages of learning, but would be abandoned 'quite quickly after a certain stage was reached' (p.72). Although the general consensus was that musicians who learnt to play music by ear extensively would develop very 'good ears', Green's participants noted that

their creativity, technical understanding, musicality and individuality were also developed or improved through this method of learning (pp.73-76).

According to Green, the practice of copying recordings was an activity almost always done in solitude. However, this solitary practice was commonly accompanied by other social practices, such as peer-directed learning and group learning, which were also central practices in popular music. While these practices were generally found in band rehearsals, jam sessions and groups performances, it could occur outside these activities (pp.76-77). The most obvious occurrence of peer-directed and group learning was when they joined their first bands, which usually happened at very early stages of their learning journey (p.78). During band rehearsals, 'skill and knowledge [were] acquired, developed and exchanged via peer direction and group learning…not only through playing, talking, watching and listening, but also through working creatively together', as they jam, attempt to play and experiment with covers and compose original music collectively (pp.79-80).

For most of the musicians in Green's study, the concept of instrumental technique as an aspect of controlling the instrument, or that it can aid further development, only became relevant at later stages of learning. In the earlier stages, many of them were only concerned with replicating what they heard or observed in the song and did not think conventional technique was important or needed (p.84). Her findings also showed that popular musicians' practice duration, content and regularity were dependent on 'their mood, other commitments in life or motivation by external factors' and that 'practice was something they did so long as they enjoyed it – if they were not enjoying it, they would not do it' (pp.86-93). However, regardless of the individualist approach to practice, all participants reported being entirely self-motivated. In terms of theoretical knowledge of music, unlike classical musicians' structured learning with an increased level of difficulty as they progress, popular musicians learnt it haphazardly according to whatever music they encountered along their journeys. As a result, instead of explicit understandings of music theory, many of them had what Green described as 'tacit' knowledge (pp.93-94).

All but one of Green's participants had experienced learning music formally, either in classrooms or in instrumental lessons. Majority of those who had classical instrumental

lessons ended them after a very brief period (p.129), as they found the lessons to be very far removed from their informal learning practices. They expressed that the lessons were 'boring, the progress slow and the music difficult to relate to', and that they 'got little out of them' (p.148). Those that had experience with popular music instrumental lessons on the other hand, although described their lessons more positively, all ended after one year or less, with one exception, who returned to lessons much later in life (p.175).

The older participants in this study who had experienced the traditional classroom music education, which focused solely on and promoted the study of classical music, all felt alienated during class. The school not only did not 'recognised, rewarded or helped them to pursue the popular music skills and knowledge' that they were developing on their own outside the confines of the classroom, but also were not interested in their 'high levels of enthusiasm and commitment to music' (p.148). The younger participants in Green's study on the other hand, experienced classroom music education after popular music was included in the curriculum, and they were far more appreciative of their school music lessons. Their teachers had more positive attitudes towards popular music, and their teaching strategies had changed drastically over the years to become more inclusive of music other than just those from the classical repertoire (pp.175-176).

Prior Learning of Conservatoire Students: A Popular Music Perspective

Lebler and Carey (2008) conducted a survey to examine the impacts that pre-conservatoire activities had on students' subsequent learning in the UK and Australian conservatoires. While the focus of the survey, which was to compare the data between the classical and popular music cohort, proved insightful, this study was only interested in the pre-conservatoire findings of the popular music students (who were all from the Australian conservatoire), which were very interesting on its own. First of all, it showed that almost all popular music students had private instrumental lessons before their tertiary level music education, and they primarily learnt popular and jazz music in those lessons. It was also noted that the majority of those students did not have more than 50 lessons, while 20% claimed to have less than ten lessons, which was consistent with previous studies. An earlier survey conducted by Lebler (2007, p.208) on students enrolled in a Bachelor of Popular Music programme also reported that the majority of students did not have more

than 50 lessons, but it also clearly showed that 45% of the participants had had more than 50 lessons. The interpretation of the percentages meant that the 'majority' was only represented by 55% and that almost half of the popular music students surveyed had extensive private tuition on their instruments. Therefore, the earlier survey provided grounds to speculate that 'majority' in the 2008 survey may also be in the 50th percentile, which subsequently implied that learning to play popular music via private lessons was becoming more common in recent years.

It was also reported in the 2008 survey that more than half of the popular music cohort had music theory lessons before commencing their studies at a tertiary institution (Lebler and Carey, 2008, p.69). This finding differed from Green's musicians who revealed that they learnt musical theory haphazardly, but this should not be considered a contradiction to Green's results. Instead, it should be viewed as an indication of changes in learning values and opportunities that developed in the span of a few years. What was most surprising about Lebler and Carey's findings was the percentage of popular music students who reported learning from recordings was just slightly north of 55%. Adding to that, only approximately 65% reported learning from friends and bandmates. These data appeared to contradict all prior works of literature's assertion regarding the primacy of learning from recordings and being part of the band (especially Green), but as these issues were not the focus of the study, it was not addressed nor were additional information provided.

While Lebler and Carey's survey findings displayed the most radical of changes in popular musicians' backgrounds, it should be emphasised that the sample was made up entirely of music students in HPME. However, viewing this from a different angle, the sample represented a segment of recent popular musicians, reinforcing the fact that the landscape of musical backgrounds among popular musicians was increasingly diversified.

How Popular Musicians Teach

A doctoral thesis by Tim Robinson published in 2010 explored how musicians who learnt to play an instrument primarily outside of the classical tradition, taught others to play. His findings on how his participants learnt largely echoed previous research; they generally learnt through the use of recordings and a range of activities that took place as part of a

band (2010, pp.79, 86). However, while the musicians in his study considered these practices fundamental to becoming musicians, they stressed the significance of, and attributed the highest regard to performing live with, or in the presence of people (pp.85-87). While previous research did indicate the role that performance played in the development of popular musicians, none of them indicated its significance to this extent.

All the musicians in Robinson's study had received formal tuition to varying degrees and at different ages, and most of them had classical musical instruction on instruments that were eventually abandoned. All in all, lessons were eventually stopped because they were 'not associated with the passion for sound which drove their practice on their chosen instruments' (pp.92-94). These explanations correlated with previous research in that they could not relate to the music being taught, and that they did not learn what they wanted to learn. Similarly, their experiences of tuition on their instrument of choice were not described positively either. Some encountered teachers who made them learn things that they were either not ready or willing to learn. Some participants who had developed some levels of aural acuity were put off by their teacher's efforts to force them to 'abandon learning by listening and imitating, and instead learn in a traditional, "formal" way...by studying technique, scales and exercises, and pieces from the classical repertoire' (p.96). On the other hand, others proclaimed that the lessons they had were not formal enough, in that the lessons were not able to help them improve their instrumental techniques, or that it was too '"informal" to the point of comedy' (p.97). The participants' accounts of possessing minimal experience with formal tuition were consistent with conclusions from prior research, but their willingness to seek tuition as noted by Robinson was interesting.

> *'Some of them increasingly felt the need for expert advice as they developed (and wanted to develop further), but others looked for teachers for help right from the start' (p.98).*

Seeking help to develop even more after a certain level of proficiency had already been achieved was consistent with Green's (2002) findings. However, to start off learning from a teacher immediately, or when the opportunity presented itself was not reported before. This finding further supported the notion that aspiring popular musicians in recent years were opting to learn popular music via formal routes, and people's views and perspectives

on formal learning were changing. However, more importantly, this finding showed how popular musicians learnt today, was likely to be different from their predecessors.

Robinson's findings on how these musicians taught provided insights into how their students learnt and demonstrated further the differences between their students' learning experiences and those of earlier popular musicians. Although the participants did incorporate informal practices into their teaching strategies and managed to emphasise the priority of listening in their lessons, their methods and philosophies portrayed resemblance to traditional classical instrumental teaching. In cases where graded exams were available for the instrument, all but two teachers regularly registered their students for exams. In terms of theoretical knowledge, all but two teachers emphasised the understanding of chords and scales as part of a regular lesson. In contrast to the musicians in Green's (2002) study, two teachers in Robinson's insisted that technique should be the first thing a beginner learnt. Others, although to a lesser degree, also laid some emphasis on techniques; introducing specific technique as the need arose when learning to play a song. In terms of notation, some taught without written materials at all, some employed notation right from the start, and others used either standard notation or other forms of notation in various ways and degrees.

Therefore, Robinson's findings on how his participants taught (despite learning informally), were evidence that the popular music learning activities and practices their students encountered in class would have been altered to accommodate the regulations of a formal lesson. This finding further furnished evidence of the changes in popular musicians learning experiences since Bennett's study on musicians in the 1970s.

East Meets West: Learning-practices and Attitudes Towards Music-Making of Popular Musicians

The latest examination on the learning practices of popular musicians that this study reviewed was conducted by Annie Mok in 2014. Unlike the other studies so far, that had a focus on popular musicians in the Western cultures, Mok set out to document the learning practices of East Asian popular musicians, in Hong Kong to be exact. The study found that their learning experiences were mostly similar to their Western counterparts, except for

perceptions and experiences of formal training. Two-thirds of the participants not only had private instruction on their instruments but also held their teachers in high regard. Mok (2014) explained that this might be a reflection of the 'traditional mentor-apprentice relationship indigenous to Chinese tradition', but on the other hand, might also suggest that the formal route of learning was an accepted form of practice for popular musicians in Hong Kong, and that informal practices were insufficient if they wanted to achieve 'higher levels of performance' (p.190). While the explanations were entirely plausible as it took into account the cultural significance of the region, it would not be out of line to wonder if this acceptance of formal learning by popular musicians was partly due to the changes that resulted from the growth of PME. Another aspect worth noting was their use of notation. Just like the musicians in Green's study, many of them used notation alongside recordings to learn a song. There even was a particular participant who primarily taught himself to play the guitar with notation (ibid., p.185).

Evolution of Popular Music Learning Culture

From the literature reported above, it was evident that while certain aspects of popular music learning withstood the test of time, others had evolved or changed. The centrality of copying from recordings by ear and being a part of a band generally did not change over the years. Musicians from all studies indicated that they primarily learnt music this way, except those from Lebler and Carey's (2008) survey. While popular musicians in recent years still did teach themselves, it was rare to find one that was completely self-taught, especially among those aiming to be a career musician, as demonstrated in Lebler, and Lebler and Carey's surveys in 2007 and 2008 respectively. Back in the 1970-80s, the majority of popular musicians were completely self-taught, with a handful having had previous classical instrumental lessons (Bennett, 1980; Finnegan, 1989). Moving on to the first decade of the 21st century, all the participants in Green's, Robinson's, Lebler and Carey's, and Mok's studies were only partially self-taught, while a majority of them supplemented their learning with private instruction, and the use of notation. In terms of instrumental instruction, all earlier studies (Bennett, 1980; Finnegan, 1989; Green, 2002) indicated that young learners would not persist with lessons for long, and all dropped out after a short period. More recent studies (Lebler and Carey, 2008; Robinson, 2010; Mok, 2014) however, suggested that they were not only very willing to seek tuition, but there

was an increasing number of aspiring popular musicians who had extensive periods of instrumental instructions, and some even held their teachers in very high esteem.

In Green's (2002, pp.155-156) study, she discussed the development of formal music education in the UK, from solely focusing and emphasising on Western classical music, to gradually including popular music into the curriculum. The induction of popular music and its practices started with the demand for the broader study of music in the 1980s, which to some extent, should be credited to Graham Vulliamy. His works arguably laid the groundwork for the radical changes that took place in the UK's formal music education curriculum, including Green's *Musical Futures* project. Vulliamy's advocacy for the use of varieties of popular music in teaching was rooted in the 'new sociology of education' and viewed deficiencies in students' performance in school as a result of a problematic school curriculum, rather than linked to 'the economic and social stratification of modern industrial society' (Vulliamy and Shepherd, 1984, pp.247-248). He argued that school curricula were overwhelmingly drawn from middle-class culture in the form of 'classical' and 'serious' music, and thus working-class students faced a 'culture' clash' in the classroom, and stood a smaller chance of aspiring to established educational goals than middle-class students' (Vulliamy and Shepherd, 1984, p.248).

The introduction of the General Certificate of Secondary Education (GCSE) in 1986 also had a significant effect in music education in England and Wales, for the new syllabus included the study of non-classical music. Five years later, the new GCSE syllabus informed the Music National Curriculum (MNC), and it resulted in the altercation between music educators and well-known music figures, who defended the syllabus, and traditionalists 'who believed that pupils ought to use their time in being introduced to the [British] cultural heritage, rather than studying popular music and world music, or making up their own music in any style whatsoever' (Green, 2002, p.156). In the end, a compromise was reached to decrease, but not eliminate, the emphasis given to popular music and world music, and on performing and composing (ibid, p.157). It was also during the early 1990s that popular music examination boards, such as Rockschool, were established. Therefore, the younger participants in Green's study who experienced the 'new classroom music education', not

only learnt popular music formally to some extent but also did not find it significantly contradictory to their experiences of learning popular music as the older participants did.

Regarding instrumental technique, Green (2002) reported that the musicians in her study had a very lax attitude in the early and developing stages, while some musicians in a later study (Robinson, 2010) emphasised the importance of technique, sought all opportunities to improve, and even made a point to begin their students' musical journey by honing their techniques when they started teaching. Also, in 2002, Green claimed that popular musicians learnt music theory "haphazardly', picking up 'bits and pieces' informally through their process of learning songs. However, Lebler and Carey's (2008, p.69) survey showed that more than half of the popular music cohort had music theory lessons even before commencing their studies at a tertiary institution, and a majority of Robinson's participants reported that they emphasised some level of theoretical knowledge in their lessons. Sitting for graded exams were not common among popular musicians when it launched in the 1990s, and only 1 out of 14 participants in Green's study had sat for the exams[19]. However, in 2010, Robinson reported that the musicians in his study regularly entered their students for instrumental exams, while one even expected all his students to sit for exams.

As demonstrated, there was a pattern of change, but none seemed as extreme as Lebler and Carey's 2008 survey findings. It could be argued that such drastic differences in learning activities, values and attitudes was because Lebler and Carey surveyed popular musicians who were enrolled in popular music degree courses, contrasting previous studies' participants. However, viewed from a different angle, this strengthened the argument that popular musicians in recent years have different, more varied ways of learning in comparison to their predecessors. This argument incidentally also accentuated the drawbacks of Green's research, which are to be discussed in detail in the next chapter. Another point of argument would be the validity of Lebler and Carey's survey findings in the context of popular musicians in the Western hemisphere; all the popular music participants in their study were based in Australia, while other studies mainly recruited popular musicians from the UK and the US. Yet, their findings greatly differed from the

[19] Rob sat for and passed Grade 8 in Bass Guitar at age 41, in order to improve his chance to enrol into university.

other literature. It could be argued that there were cultural factors involved, but the fact that the findings from Hong Kong stoke a chord with those from the UK and the US greatly undermined the strength of this argument. To further determine the validity of this claim, a cursory comparison of what Bill Bruford (2019) termed 'expert' (p.84) musicians was carried out between the learning experiences of Bruford's sample (North America and Europe) and a selection of drummers currently active in Malaysia that fit Bruford's description of 'expert'[20]. The comparison revealed that the experiences of drummers from various territories bore many similarities[21]. Drummers from both groups all had informal experiences, some were immersed into the culture from a young age, some took up formal instruction, and some engaged with Higher Popular Music Education (HPME). So, if geographical and cultural factors did not play a significant role, the next logical consideration would be the date of the study; Lebler and Carey (2008), Robinson (2010) and Mok (2014) presented findings that indicated patterns of change in the learning activities, values and attitudes of recent popular music learners.

Summary

The examination of literature that studied popular musicians' music-learning and -making practices demonstrated the changes that occurred since the 1970s. The depiction of the culture had evolved from one that primarily sat within the aural tradition, was communal based, segregated from the realms of formal institutions, and where progress was self-governed. The culture had now diversified into one that included experiences where notation was used widely, and the acquisition of skills and knowledge were commonly experienced within the context of a student-teacher dynamic in a formal lesson. The demand for widespread access to popular music-making skills and knowledge in the latter half of the 20th century made way for the formalisation of popular music learning, which in turn changed the landscape of popular music learning culture and introduced a multitude of tensions between popular musicians who experienced formal learning, versus those that did not.

[20] They include John Thomas, Arthur Kam, Steve Nanda, Afendi Mokhtar@Sotong, Jimmy T. Jamz, and Derrick Siow.

[21] Some details of their music learning histories can be found online, others were based on the researcher's knowledge and insights.

Higher Popular Music Education

The evolution of popular musicians' learning experience demonstrated that formal popular music education has an ever-increasing presence in today's learning culture landscape, and they were mainly experienced through formal instrumental lessons, school classroom music lessons and in Higher Education Institutions (HEIs). But what is Popular Music Education (PME)? Smith *et al.* (2017) attempted to answer this question in a paper titled *Popular Music Education: A White Paper by the Association for Popular Music Education*. They proclaimed that PME may be 'understood as necessarily different from Western Art Music (WAM) education' and 'is highly complex, problematic and challenging, as well as being inspiring and deeply meaningful to many people, individually and collectively'. While their answer to the question is undisputable, it only answered what PME is not, and how it is perceived. It did not really reveal much of what PME actually is or does. In other words, what is the purpose of PME? What does it aim to achieve? What takes place in PME? How and why did PME emerge? Lastly, what are the impacts of PME?

The following pages would focus on Higher Popular Music Education (HPME) and question how the emergence of formal training in the form of HPME caused disparities in learning experiences between past and present musicians. Why did it affect change in the learning culture landscape, and how did HPME get this way? This study would attempt to address these enquiries by examining the current landscape of HPME, its origins, development and growth, the challenges it faced along the way, and the discourse surrounding the field.

While the studies cited henceforth examined HPME from the perspectives of the providers and practitioners rather than the students, the findings provided valuable and viable insights into the environments that students were situated in and the learning process that they experienced.

Current Landscape of HPME

Cloonan and Hulstedt's (2013, p.67) mapping of HPME provision in the UK revealed that one-third of HEIs across the UK (47 institutions) offered Popular Music degrees, where the provision was dominated by institutions that gained University status after 1992, and

majority of the programmes were introduced in the 21st century[22]. A total of 560 'core' modules could be categorised into three groups: practical, vocational[23] and critical[24]. In addition, applicant numbers did not seem to be impacted by rising tuition fees, which in 2012-2013 was approximately £9000 per annum (ibid., p.69). The fact that these programmes mushroomed without a reduction in applicant numbers, despite increasing tuition fees, meant that there was a resilient demand for such services to be made available. Though this expansion in student enrolment should be understood 'within a longer narrative of sector growth' which '[moved] away from elite provision towards mass provision' (Parkinson, 2017, p.133).

Entry Requirements

Regarding entry requirements, that same study found that over a quarter of the survey respondents indicated that entry into programmes required advanced performance abilities, while three mentioned advanced theoretical knowledge as a condition for admission (Cloonan and Hulstedt, 2013, p.69).

Fleet (2017, p.169), in his study exploring the inherent value of notation to a popular musician, investigated the provision of notation in UK-based HPME and found that 10 out of 57 UK programmes asked for some level of music notation knowledge as a prerequisite for admission (Fleet's findings will be discussed in more detail as the chapter progresses).

Cloonan and Hulstedt (2013) did not elaborate on what advanced performing abilities and theoretical knowledge entailed, but a quick examination of four randomly selected institutions on UCAS showed that this might include Grade 8 level proficiencies and the ability to sight-read[25]. While plausible to argue that these requirements would generally be

[22] The timeline of this increased provision of HPME programmes coincided with the introduction of popular music into the GCSE in the 1980s, the establishment of the Music National Curriculum and Rockschool music examinations in 1991.
[23] Referring strictly to training that would lead to non-performance related employment in the music industry (Cloonan and Hulstedt, 2013, p.69).
[24] However, it should be noted that the nature of the programmes examined did vary (at least as suggested by the names of the programmes), including but not limited to Popular Music, Performance, Management, Music Industry/Business, and Production.
[25] The institutions sampled were The Institute of Contemporary Music Performance, University of Chester, University Centre Grimsby and Southampton Solent University.

associated with 'old' institutions with roots in Western classical music programmes, the four selected institutions examined belonged to the 'new' category. Fleet's (2017, p.174) assertion that 'the foci of popular music degrees…and the pre- and post- '92 universities and the colleges that deliver undergraduate programmes, are evenly represented in each of the categories within the matrix…and that nobody can suggest that "only the pre- '92s consider notation"' supported this notion.

Composition of the Programmes

The prerequisites for admission, usually set to ensure that applicants possessed the required attributes and skills to progress through and graduate, revealed the philosophy of the programmes to some extent. That then led to the question of the composition of the programmes (the balance among practical, vocational and critical components).

Cloonan and Hulstedt's (2013, p.69) study reported that a fair number of degree programmes claimed that 40% of their programmes were practical, while 21 out of 25 respondents indicated between 10-33% of programme elements were vocational. In terms of analytical components, 1 out of 31 respondents claimed 100%, 15 claimed 20-30% and 11 claimed 40-50%. Therefore, there appeared to be a considerate emphasis given to theory, analysis, cultural and historical studies, as 27 out of 31 programmes have a minimum of 20% analytical elements. While the categorisations were not flawless, it presented a useful finding; responses that indicated a high percentage of analytical components primarily derived from 'old' universities (ibid., p.70). In addition to the proportion of analytical elements, it was also found that 24 out of 32 programmes included dissertations (p.71).

Pedagogy

Literature on the characteristics of popular music pedagogy in institutions revealed that popular music practices were presented as skills and knowledge to be taught and learnt, and a canonised repertoire which was 'taught in a formal, transmission-style manner' were to be accurately replicated (Parkinson and Smith, 2015, pp.95, 108). Additionally, pitch-based music skills were disproportionately emphasised (Bennett, 2017, p.287), learning

often relied on the master-student model (Lebler and Hodges, 2017, p.273), and there was a relatively strong presence of notational elements.

As mentioned above, Fleet's (2017, p.169) study found that 10 out of 57 institutions required notational knowledge prior to admission. This was joined by 16 other institutions that did not indicate it as a requirement but did go on to teach it in the programmes, making it 26 out of 57 (46%) PME programmes that required their students to be familiar or even fluent in music notation reading upon graduation. A study by Björnberg (1993, p.74) depicted a more extreme case, in which 'notated musical structures [played] a vital part both in the analytical and practical teaching of popular music' at the Aalborg University Centre (AUC) in Denmark; performances were based on written arrangements and the ability to notate arrangements was an examination requirement.

These reports of pedagogical approaches inferred learning situations that were not only more aligned with the general academic model but also bore similarities to its classical counterpart, rather than emulating practices and environments deriving from the music culture itself.

Discussion

This snapshot of PME raised questions and provided some interesting points of discussion which generally were within the realms of how PME arrived at where it was today, and the impact it had on the wider industry. However, this study will only focus on those relevant to this research.

The first point was that the demand for institutionalised learning of popular music contradicted prior accounts of popular musicians who distanced themselves from institutionalised learning. Although literature indicated a shift in direction began decades ago, it did not satisfactorily explain the sudden burgeoning of PME.

Secondly, while it was mentioned above that prerequisites were put in place to ensure that potential applicants could complete the programmes they planned to enter, which were governed to some degree by the very nature of the programme aims, it still caused one to

wonder which parties were involved in the determination of the requirements and the rationale for doing so.

Thirdly, regardless of the practical- or vocational-ness of the programmes, they all included some levels of analytical components, with the lowest being 20%. Popular musicians of the past did not require much (or even any at all) theoretical, analytical, cultural or historical knowledge to become popular musicians. Ergo, it warranted the question of its inclusion into popular music programmes.

Fourth, popular music pedagogical approaches appeared to be highly influenced by existing pedagogical models, but did these ways of learning aligned with the traditional route of becoming a popular musician? If there were discrepancies, issues worth addressing would include the cause of these disparities, and the extent that these ways of learning adequately prepared enthusiast to meet the expectations of the industry.

Last but not least, with a considerable number of graduates continuously entering the industry, it begs the question of the impact this might have on the field. Every year, a new batch of formally trained musicians, who accumulated different and what might at times be argued as dichotomic capital, skills, attributes, attitudes, values and characteristics, join the larger community. When asked about post-graduation employment status, 20 out of 32 responses in Cloonan and Hulstedt's (2013, p.71) survey reported that a range of 25-80% of graduates went on to work in the music industry. 25% employability rate was shockingly low and raised questions about the programme's alignment with the reality of the industry. Therefore, it would be interesting to learn not only the ways in which these graduates navigated through the industry and coexist with the broader community, but also the response of the industry towards these musicians.

These questions inevitably led to the question of how the PME landscape arrived at where it was today and attempts to understand this phenomenon benefited from an examination of how it all began, and the factors that governed its growth and development.

Origins, Development and Growth

The United Kingdom

According to Cloonan (2005), Parkinson (2017), Parkinson and Smith (2015) and Warner (2017), the origins of popular music studies in the UK could be traced back to the 1960s, specifically with the attention that the Beatles attracted from intellectuals, and it also drew from the intellectual momentum since the inception of the Birmingham Centre for Contemporary Cultural Studies in 1964. It could also be seen to date back to the 1970s and the early 1980s when literature put forth notions that popular music was not just mere commercial, mass entertainment, but also an entity that needed to be examined through sociological and cultural lenses to expose its meanings. Therefore, it placed the field's origins within the disciplines of cultural studies, sociology, ethnomusicology, traditional musicology among many other pre-existing disciplines.

Following the intellectual interest and the enactment of the International Association for the Study of Popular Music (IASPM) in 1981, several British universities were motivated to introduce popular music into their programmes and syllabi in the following decade. Worth noting were Liverpool University who launched the world's first Master of Arts degree in Popular Music Studies in 1990 and University of Salford's BA in Popular Music and Recording. Other 'important pioneers' included the BA in Popular Music by Leeds University, BA in Commercial Music by University of Westminster and also the introduction of Rock Music Performance modules by the SQA (Warner, 2017, p.128; McLaughlin, 2017, pp.120-121). McLaughlin (2017, p.121) however, did note the absence of independent HE providers that were unequivocally vocational, such as British and Irish Modern Music Institute (BIMM), the Institute of Contemporary Music Performance (ICMP) and the Academy of Contemporary Music (ACM) in the discourse of 'important pioneers' of PME. This observation was also noted by Parkinson and Smith (2015, p.99) who asserted that rarely was equal attention afforded to the development of the vocational strand of PME.

Despite tracing its origins to the 1960s, PME was still a relatively new phenomenon in the UK, and Cloonan and Hulstedt's (2013, p.68) mapping provision exemplified this notion. It revealed that the majority of programmes were introduced from the 21st century onwards,

18 of which were post-2006. Additionally, Parkinson (2017) claimed that all but one HPME undergraduate programmes that are offered today in the UK emerged after 1992; the year that many former polytechnics and Colleges of Higher Education were conferred university status under the Further and Higher Education Act. This notion of newness was also concurred by McLaughlin (2017, p.120).

The United States of America

The topic of PME's beginnings would not be complete without diving into the realms of the land between the Atlantic and Pacific Oceans as 'the history of modern popular music, and its subsequent study, derived from the United States (Cloonan, 2005, p.78). While the literature on the origins of PME in the UK mostly focused on its academic debut, those on the US covered a broader spectrum depicting a comparatively more wholesome narrative that examined how the social, cultural and political climate and the various entertainment industries intertwined and created an industrial demand that was capitalised by individuals and institutions alike.

The American story was traced back to the 1800s and began with the growing interest in instrumental and vocal music learning, and that gave rise to the role of professional music educators who aided the dissemination of both classical and popular music repertoire and performance practices. Even though oral practices were still central to the learning process of popular musicians, they also procured the services of professional music educators and printed materials supplied by the music publishing industry targeted at musicians learning popular music (Krikun, 2017, p.34). During this time, peripatetic music teachers proliferated in numbers until the introduction of formal music education into the Boston public schools in 1838 (Powell *et al*., 2015, p.5).

However, the second half of the 19th century saw the beginning of cultural hierarchy delineations, where boundaries formed between art and popular music traditions and patronage of the former music tradition were 'used to distinguish the taste of the emerging White Anglo-Saxon Protestant elite from the musical styles preferred by members of ethnic minorities' (Powell *et al*., 2015, p.6). This delineation between art and popular music

created a climate that propagated the advancement of Western art music tradition in formal education, disassociating itself from popular musical practices (Krikun, 2017, p.35).

By the early 20th century, music educators were tenacious in their resolve to elevate the musical level of the general public by attempting to indoctrinate students with the capacity to recognise the aesthetic properties of the European art music repertoire. However, technology, mass migration and urbanisation amplified the public's access to popular music through sheet music sales, player pianos and phonographs, allowing popular music styles such as ragtime to flourish. At the same time, while most public schools eschewed popular music, opportunities to study the music came in the form of instructional books, magazines, correspondence courses and private music schools (Powell *et al*., 2015, p.6).

The next few decades saw an increasing presence of popular music styles in formal education as a means of providing music students with adequate vocational training to 'prepare students for specific careers, rather than to provide them with the foundation to pursue further education' (Krikun, 2017, p.36). In the 1920s, several high schools included popular music in their curriculum and Samuel Browne incorporated the current jazz styles of the time in the band programme at Jefferson High School in the 1930s which produced a generation of acclaimed jazz musicians. Furthermore, with dance bands and vocal groups dominating the popular music landscape and Hollywood becoming an important centre for the various entertainment industries, junior colleges within the region began offering courses in popular music to cater to the needs of the growing market by equipping individuals with relevant skills for a career in those industries. The empirical evidence of this came in 1938 when Fred Beidelman announced at the MENC[26] national conference that survey results showed seven junior colleges in California were offering popular music courses. This included Pasadena Junior College's Practical Music Arranging in 1933, Long Beach Junior College's Modern Music course in 1937 which was the first institution to offer a degree in popular music, and Los Angeles City College's Curricula for Dance Musicians in 1939 (Powell *et al*., 2015, pp.6-7).

[26] Formally known as Music Educators National Conference (MENC), currently known as The National Association for Music Education (NAfME).

By the end of the Second World War, there was a pressing need for the education of musicians who wanted to pursue careers as professional musicians. This demand for music education was not a random coincidence but the result of a variety of factors, such as the growth in college enrolment, tuition-free education under the G.I. Bill and the musical training that soldiers received during their service. The end of the war meant military service conclusion for veterans, who were subsequently in need of a job, and this demand was quickly responded in the form of Schillinger House (known today as the Berklee College of Music) and Westlake College of Music in 1945. The former, based in Boston offered a diploma in the Schillinger System of Arranging and Composition, focusing on dance band arrangements, instrumental and vocal performance studies, and musicianship courses. In contrast, the latter focused on preparing students for careers in the Hollywood studios in Los Angeles. In the following year, Los Angeles City College introduced its 'Commercial Music' programme, and North Texas State College established a dance band curriculum (ibid., pp.6-7).

While the history of American jazz education often cited the courses mentioned above, they would be more appropriately described as popular music programmes 'due to their practical training and the central role of the dance band' (p.8). In addition to that, jazz styles up till the Bebop era were the popular music of the early 20th century; New Orleans Jazz and Big Band Swing were immensely popular and often characterised as dance music meant for mass entertainment (meeting the criteria of some definitions discussed above). While the discourse surrounding the ontology of 'jazz' and 'popular' lies at the edges of this study's concerns, the issue within this context was best characterised in a notion by John Parker (1962) cited by Krikun (2017, p.39) who promoted ragtime, jazz, swing and be-bop as 'popular music' that deserves greater academic attention, as opposed to other popular music styles. Following the artistic direction change that jazz undertook (divorcing itself from entertainment for the masses), programmes began to emulate that distinction and divided into those that specialised in jazz studies and commercial music during the 1950s and 1960s (Powell *et al*., 2015, p.8).

Development in PME gained even more momentum when the pivotal Tanglewood Declaration in 1968, arguing for the acknowledgement of popular music as worthy of study,

ensued the advocacy for including popular music in the K-12 curriculum, and several community colleges in the Southwest inaugurated country and bluegrass music programmes in the 1970s. By the 1980s, popular music became the predominant music in commercial music programmes in community colleges. However, it was only inducted into the curricula of elite American research universities through the musicology and ethnomusicology disciplines, and Popular Music Studies then only began to take root in American college and university music programmes (ibid, p.8). According to Mark Huggins (2021), at the point in which his research was carried out, several universities in the US had developed music degrees built entirely on popular music, such as Berklee College of Music and the University of Southern California. Worship leader vocational training programmes at Cedarville University, Grand Canyon University and Liberty University were also created in response to the vocational needs related to specific genres of popular music. Additionally, certificates in popular music were also provided at various post-secondary institutions, including Hillsong College, Visible Music College, Berklee College of Music, California College of Music, Indiana University of Pennsylvania and Brooklyn Music School (pp.1-2).

Similar to the UK, PME in America experienced unprecedented growth in the 21st century, 'expanding in every teaching context from internet delivery to community music schools and private music studios, to all levels of public and private education' (Krikun, 2017, pp.41-42). However, Powell *et al.* (2015, p.13), citing Mantie (2013) argued that there were differences between the US and international perspectives regarding popular music pedagogy discourse, which was in part due to the diverse contexts that PME existed in America. The differences included programmes at a range of institutions catering to those wanting to study music, but not classical or jazz music, and procure relevant skills and knowledge to navigate the industry they intended to enter. Course content, while varied depending on programme aims, generally consisted of a combination of modules that fell within the music history, theory and composition, music industry, record production or music performance categories (Powell *et al*., 2015, pp.13-17).

Observations

From the review of origins, few things concerning the state of current PME were observed, including the burgeoning of PME, the compositions of programmes, pedagogies and prerequisites.

Burgeoning of PME

The burgeoning of PME in the 21st century was not a one-off occurrence; it happened in America various times from the early to mid-20th century as a response to a demand for such services. When public schools shunned popular music, private schools were established. When that demand grew post-1945, even more institutions were either enacted or began to cater to those who desired popular music training. There was reason to believe that the sudden mushrooming of PME provision in recent years was due to increasing demand attributed to the inclusion of popular music into the UK's GCSE syllabus in 1986, and the acknowledgement of popular music as a subject worthy of study in the 1968 Tanglewood Declaration in the US.

The Field's Origins and The Composition of Programmes

The composition of the UK programmes, as discussed earlier, indicated an emphasis on theoretical, analytical, cultural or historical knowledge. These emphases could be linked to the fact that the field originated from pre-existing disciplines such as cultural studies, sociology, ethnomusicology and traditional musicology. Departing from this point of origin, it was no surprise that till today, the majority of providers in the UK reserve a portion of their programmes for analytical studies. That being said, Cloonan and Hulstedt's (2013, pp.70, 74) study asserted that there appeared to be more emphasis of this nature in the programmes of 'old' universities. However, it also revealed that the composition make-up of current programmes was as diverse as the music being studied. This diversity was in no small part due to independent providers of PME that designed programmes to nurture student musicians into professional musicians since the 1980s (Parkinson and Smith, 2015, p.100), similar to what transpired in America decades earlier.

If the early liberal study of popular music (generally associated with 'old' universities) and vocationally driven courses of independent providers were positioned at extreme ends of a spectrum, programmes today would be situated anywhere between those two ends as it was almost impossible to find programmes that were acutely liberal or vocational. This confluence of liberal and vocational, as pointed out by Parkinson and Smith:

> *'Can be considered in the context of two processes: what Elzinga (1985) terms epistemic drift in societal demand away from pure knowledge towards utilitarian knowledge, and in the other direction, what Blume (1985, cited in Becher and Trowler, 2001) identifies as an intellectualising shift in applied disciplines away from their practical foundations and towards more theoretical curricula' (ibid., p.101).*

The authors also asserted that these processes were dependent on the disciplines' inception motive, or what Becher and Trowler (2001), as cited by Parkinson and Smith (2015, p.101), described as 'mode of genesis', of which there were three types. The first was when the emergence of new disciplines originated from specialist interests in existing disciplines, termed internal genesis. The second, external genesis, where disciplines were created to meet social demand. The last being external stimulation, when existing disciplines were reconstructed to align themselves with societal demand. Based on this conceptual lens, it could be construed that the field's liberal beginnings developed from an internal genesis, while vocationally-inclined institutions were the product of an external genesis; brought into existence as a response to 'societal demand for vocational popular music education' (Parkinson and Smith, 2015, p.102).

Since then, programmes at both sides of the binary had to confront external stimulations and succumb to their pressures. Vocationally-inclined institutions began introducing non-applied content into their programmes to satisfy 'external expectations of academic practice', and in some cases, they were only included to meet the requirements of a degree-bearing programme (p.101). Liberal courses on the other hand, were confronted with the increasing emphasis of graduate employability in HE (McLaughlin, 2017; Parkinson, 2017)[27]. This confrontation did not directly translate into the inclusion or increment of applied content in liberal programmes. Instead, it has to be understood in conjunction with

[27] Possibly as a consequence of commitments to meet government objectives and initiatives such as the Key Information Set.

two implicit assumptions, namely, that 'success [was] at least partially measured by technical proficiency', and 'a financially sustainable career in music [was] the main driving force for most students' (McLaughlin, 2017, p.121).

In the discussion of tensions between practical activity and critical studies, Warner (2017) noted that there was dissidence among academics when it came to the relationship between practical activity and 'the intellectual or critical dimension that was originally at the core of popular music studies as established in some institutions'. For some, this remained an area of contention as they believed that the initial academic aspirations of those that pioneered the field risk obscurity as a consequence of the increment of practical elements. Comments by Warner's interviewees also revealed a general resistance among academics towards the academic shift from the liberal to the vocational:

> *'Specialist undergraduate courses…in terms of producing erudite graduates who can defend the continuing importance of the field, not least globally and virtually, are decreasing' (ibid., p.130).*
>
> *'I don't think that that's the direction to go in. We need to produce good practitioners, yes, but also produce those who can think about their practice, able to argue their particular approaches. Practice needs to be contextualised in an academic context' (p.131).*

Although referring to the preservation of the cultural establishment's understanding of popular music, Kassabian's (1999) argument, as noted by Warner (2017) incidentally revealed the overarching sentiment of the cultural establishment:

> *'The forces of the cultural establishment have rallied to protect their territory, not just to underpin and propagate the intellectual pre-eminence of their research and study, but also to protect the physical representation of that older school of thought within the academic corridors, fighting not just over ideas but also a campaign for space to present perspectives on a version of music that is mass-produced, mass-consumed and mass-orientated' (pp.131-132).*

For the most part, it was believed that their existence and what they represented were being threatened by the growth of vocationally driven programmes and the expectations of graduate employability. Therefore, the revisions to their programmes may not have always been an internal initiative, with the expressed purposed of improving their

programmes, but rather done out of necessity, as external stimulation rendered it mandatory for survival.

Despite resistance from both sides, the confluence of liberal and practical content still went underway, resulting in the current provision that consisted of a variety of content combinations, and also compositions that were moving towards the middle ground. Given that the formal training of popular music in the US derived from a more vocational agenda, it was not clear if there were similar cultural, social and musicological emphasis across the Atlantic Ocean. However, there was evidence of attention to theoretical and analytical knowledge.

Pedagogies and Prerequisites

The pedagogical approaches and consequently, the prerequisites found in PME today could likewise be explained by analysing its point of genesis and societal perception of high/low culture. Modern formal music education was initiated with, and focused on, the Western Art music tradition at its core, governing its boundaries and structuring the field from the inside out, generating expectations of what formal music education should entail (Parkinson, 2017). Bennett (2017, p.285) in his discussion of semantics, succinctly illustrated the steadfast position of Western Art music tradition in formal education.

> *'The only reason we might use the term "popular music degree" is to differentiate its content from that of a "music degree" – not "classical music degree", but "music degree". That is to say, the default semantic in higher music education is to assume that "music" means "classical music"…specialised music education in the developed world is dominated by the Western classical music tradition.'*

Similarly, Rupert Till, a senior lecturer at the University of Huddersfield, commented that despite popular music content in their courses, and even offering a degree in popular music, '"music" at his institution [was] still regarded as classical music' (Warner, 2017, p.132). The fact that there existed an immediate presumption that a 'music degree' was equivalent to a Western Art music programme exemplified this notion of its fortification within academic realms. Therefore, when popular music began to seep into institutionalised environments, it was done with adherence to established principles of music education. Moreover, as evidenced in the US, cultural hierarchy delineations further cemented the stature of

Western Art music tradition in institutionalised learning environments, making it harder for popular music and its practices to penetrate the field, or even establish itself without reference from the existing discipline[28].

This domination by the Western Art music tradition not only shaped the way popular music was taught in formalised environments but was also the driving force behind the discrimination and resistance to popular music's entrance into academia (demonstrated below to be one of the primary factors that governed the development of popular music pedagogy). Ian Pace (2016), a pianist and head of the music department at City University London, in response to Simon Zagorski-Thomas's talk on 'Dead White Composers' on BBC Radio 4's *Four Thought* programme, had this to say about popular music and an important figure in popular music studies, Simon Frith:

> *'I think Simon is being deeply disingenuous if he denies that popular music courses do not appeal in large measure to students with fewer developed musical skills than for other courses. In many broader departments, classical and 'world' music students are capable of also studying popular music, but the reverse is much less true. And it is well-known that while many scholars of other musics can also teach popular musics, again it is rare for the reverse to be true'.*
>
> *'Since you mention Simon Frith, I will say that I think we have reached a low point when someone so abjectly unconcerned with matters sonic/musical, indeed contemptuous of them, is a Professor at a Music Department. In terms of "serious academics", each can decide for themselves who is 'serious', but I am going on the basis of reading a lot of popular music studies. Certainly some do study the music, but on balance, the extent to which it receives detailed and intense attention is small compared to that in various other musical fields. This is not the only musicological sub-discipline for which this is often the case, but one of the worst in this respect'.*

Warner (2017, p.131) argued that one of the primary hurdles faced by popular music studies in its endeavour to establish a place in university music departments '[was] the powerful dominating presence of the Western Art music tradition, which has enjoyed a central and privileged place in the UK higher education for centuries'. This notion of resistance was expanded upon by Dyndahl *et al.* (2016, p.13), who conducted an extensive study on the academisation of popular music within the Nordic higher music education context and found that 'the structural forces that [governed] processes of music gentrification appear[ed] to be connected to…institutional status and the academic elite

[28] This was arguably not the case for the early independent providers in the UK.

power ascribed to individual professors'. Applying this to the academisation process of popular music, this quite explicitly declared that music professors and other academic employees 'may act as regulating forces with regards…to which music genres and styles [were] considered appropriate to elevate and institutionalise' (Dyndahl *et al.*, 2016, p.4). As gatekeepers, they effectively determined the boundaries of legitimate research objects and educational content. Therefore, the earliest induction of popular music content was done so at the discretion of music professors who were predominantly from the Western Art music tradition. Incidentally, Kassabian's comment about the establishment protecting their territory could be appropriately extended to characterise academia's resistance towards, and bias against, popular music.

Formal Jazz Education as Precedent

While the manner in which popular music made its debut in formal education informed of its developmental trajectory, there was a lack of literature that examined the linear or chronological development of pedagogies and practices employed in formal PME. However, there was a field that could provide insights and allowed for parallels to be drawn, as this was not an unfamiliar narrative; formal jazz education faced similar obstacles decades earlier. Jazz and popular music were arguably from branches of the same family tree, and their modes of transmission (before formalisation) were similar (Gatien, 2009). Therefore, both formal jazz education and PME shared many common struggles on their journeys towards instituting themselves within academic realms.

Academic Discrimination

The academic discrimination against popular music was predominantly based on the perception that it 'lacks complexity and intellectual content' (Alper, 2007, p.160). While the resistance towards jazz was similar to that of popular music, it also had strong connotations of cultural and ethnical biases. Gatien (2009), in his paper discussing the linkage of jazz and popular music through pedagogy, asserted that just like popular music, jazz faced condescension from academia. *The teaching and Administration of High School Music*, a widely used textbook in university music education classes published in 1941, characterised jazz as the antithesis of art music, claiming that they were at 'opposite poles of the musical

earth', educationally at odds with each other. That jazz destructed the objectives of music educators because students '[hear] so much more of jazz than real music that his artistic taste tends to deteriorate' (Dykema and Gehrekens, 1941, as cited by Gatien, 2009, p.102). Prominent jazz figures also gave accounts of the reception jazz received within institutional walls, noting the struggles they faced, ranging from the prohibition of playing the saxophone, signing out school instruments to play jazz, to getting thrown out of practise rooms. The most severe of them all was the claim that the consequence of playing jazz in college was expulsion from the programme (Gatien, 2009, p.102).

Emphases and Practices

In that same paper, Gatien argued that our understanding of the emphases observed today in formal jazz education must be informed by the ways its advocators responded to the obstacles in their quest for the inclusion of jazz in formal education and ultimately, to make the case that jazz was 'worthy of study as high art, refuting deep-seated notions that it [was] some lower form of music' (ibid., p.103). Embarking from this viewpoint, it made sense that practices commonly observed within formal jazz education could be traced back to this need to legitimise the music as a way to gain recognition, and to win more respect for jazz. The instinctive course of action to achieve that end was to juxtapose it with what was, and still is perceived as the most prestigious music, Western Art music.

> *'Western Classical Music tools of analysis were an obvious and highly effective way of demonstrating the intricacies of jazz in ways that were irrefutable to formal institutions…The fact that jazz instruction was being [modelled] upon a Western Classical Music framework must have also been just as obvious' (p.104).*

Therefore, how jazz should be taught became secondary to the establishment of its legitimacy and value, and the adoption of Western Art music pedagogical practices in the codification of practices in formal jazz education, from teaching methods, canon construction to analytical models went largely unchallenged (p.98).

This process was further complicated by the difficulty of defining jazz, of setting boundaries on what was and was not jazz, what should be taught and what could be omitted, resulting

in pedagogies that could be seen to have emerged from a narrow understanding of the jazz tradition that focused on the 'teachable' aspect of jazz.

> *'Among other things, this resulted in a premium being placed on an analytical understanding of canonical jazz improvisers that can be translated into print materials and play-alongs; a jazz ensemble repertoire that focuses on great works and is largely transmitted through notation; a history that focuses on a linear progression and stops when that progression becomes problematic, generally somewhere in the 1960s' (Gatien, 2009, p.97).*

While on the whole, this provided students with skills and knowledge of jazz, the process of those that went through this formal route to become jazz musicians was not a striking image of those who went through the traditional trajectory, and this disparity generated a noticeable difference between them. Jazz pianist and educator Michael Cain (2007), as cited by Gatien (2009, p.99) wrote that jazz pedagogy in the academy did not bear resemblances to the pedagogy among practitioners, and while they were of a shared musical tradition, they were somehow distinct from one another. Remarks of this sort were not scarce, with observations ranging from the loss of individuality to a narrow understanding of what jazz was (ibid., p.99). Similar sentiments were echoed by Alper (2007, pp.157-158), who asserted that jazz performance instruction in jazz programmes generally did not reflect the traditional methods of learning. That fluency in big band performances took precedence over the art of improvisation, combo intra-action and other early and late styles of jazz.

One of the fundamental factors that contributed to these after-effects was the canonical construction of the music. Referencing the works of historian Gary Tomlinson (1996), Gatien elaborated that through its inevitable exclusionary function, the consequence of canonical construction was the perimeters it set on what could be studied and how it could be taught. He went on to elaborate this notion by pointing towards David Ake's (2002) examination of the formalised canonical study of John Coltrane's music. Widely regarded as a quintessential figure in jazz history, Coltrane had a profound presence in the contents of formal jazz education, from performance practices to history and cultural studies. However, the formal study of Coltrane's music primarily focused on his earlier works, while his later 'avant-garde' endeavours were largely ignored. In comparison to his later works,

Coltrane's earlier accomplishments fit more comfortably into the matrix of 'European' music systems and thus, easier to place it under the scrutiny of its analytical tools. What resulted from this selective omission of Coltrane's later work based on classical biases was that 'a type of musical "half truth"' about jazz transmitted from institutions to students, which then confined their understanding of what constitutes as jazz music (Gatien, 2009, pp.99-100).

The effects of this jazz canon extended beyond what was to be taught, and into the realms of how it would be taught; primarily comprised of the 'teachable' aspects from the perspective of Western Art music tradition. The formulation of a 'canonical, codified way of understanding and learning jazz' led to students learning the same music and patterns, from the same recordings, with the same pedagogic approaches, ultimately producing a generation of generic soloists that sound similar to one another (ibid., p.99).

One other issue with the canonical study of jazz was its tendency to focus on 'past accomplishments deemed canonically significant' and presenting the jazz tradition as 'a set of past accomplishments for study and preservation' (pp.100-101). While the study of past accomplishments was essential, the emphasis gave the impression that jazz music was an entity that had 'a defined set of rules and regulations and boundaries and qualities that MUST be present and observed and respected at all times' (Pat Matheny, 2001, as cited by Gatien, 2009, p.100). Numerous jazz musicians and writers, such as Keith Jarrett, Pat Metheny and Robert Walser have raised concerns about the way jazz was being analysed and transmitted in academies, mainly arguing that methods developed from Western Art music practices and analyses were inadequate to understand jazz in its entirety (p.101).

What happened with the formalisation of jazz music learning was that its transmission was adjusted to 'exist more-or-less comfortably alongside Western Classical methods of transmission', but 'that shifting the modes of transmission have resulted in the jazz tradition changing in ways that fundamentally [altered] the music and our ways of understanding it' (p.98). Gracyk (1992, p.537) likewise asserted that formal jazz education 'effectively killed jazz', and that 'most of the jazz played today sounds like jazz but really isn't it'.

Shared similarities between Formal Jazz and PME

Just like jazz, to gain entrance into formal institutions, popular music had to navigate around the resistance, biases and external expectations on its way to establish itself as an academic field, and its responses to those hurdles set the stage for its developmental trajectory. As Alper (2007, p.159) succinctly put it, 'the teaching of music that challenges the conventions of the day will always struggle for acceptance in higher education'. Out of necessity, popular music had to measure itself against the conventions of Western Art music traditions in order to promote its legitimacy as music worthy of serious study, and this subsequently informed and influenced the practices and pedagogy employed in formal popular music learning environments. Similarly, issues such as those listed above in the discussion of pedagogies in current provision developed from the focus on the 'teachable' aspects of popular music, to essentially fit popular music into a pedagogic model that made sense to the entities intending to promote the learning of it.

A canonised construction of popular music repertoire and practices could likewise cause disturbances in the field. Given the similar trajectory that PME was on, discourses in jazz education surrounding the loss of individuality and a narrow understanding of the music could aptly be applied here as well.

Contradictions and Incompatibility Discourses

It is without a doubt that formal training possessed the capacity to facilitate the acquisition of popular music knowledge and skills, but 'the acceptance and formalization of popular music education may in many instances be ignoring vital elements of traditional ways of learning this type of music' (Smith, 2013a, p.31), and these notions did not escape the attention of popular music scholars and educators. In regard to canon-orientated pedagogy, Parkinson and Smith's (2015, p.109) assertion correlated with Gatien's, proclaiming that it '[could] be seen to display a foundational understanding of authenticity that [corresponded] to aesthetic proximity to an established, exemplary ideal', and that 'in rewarding "accurate replication" and thus implicitly discouraging transgression, there [was] a risk that such an approach in HPME inhibits the development and expression of a performer's individual musical voice'. Alper (2007, pp.160-161) also raised similar concerns, by pointing out that

one of the characteristics of popular music was the creation of a unique individual sound, and that many popular music artists did unconventional things, but yet most university popular music programmes seemed to operate in opposition to this trait as they strived to train students to emulate established performance styles. That, in turn, also contributed towards an incomprehensive understanding/awareness of the extent of popular music, as students were only exposed and geared towards popular styles that comprised the canonised repertoire.

What these notions articulated were contradictions and incompatibility issues between what went on inside and outside academic parameters, that the preparation and training that students received within those institutional walls might not be sufficient or aligned with the professional lives they will face after graduation (Westerlund, 2006, as cited by Lebler and Hodges, 2017, p.273). Other contradictions and incompatibility issues have also been highlighted by Cope (2002), Parkinson and Smith (2015), Alper (2007), Covach (1997) and Dyndahl and Nielsen (2014).

SELF-MOTIVATION

In his paper discussing the importance of social context in musical instrument learning, Cope (2002, p.102) wrote that,

> *'One of the crucial key factors in informal learning in music is an appropriate social context which not only supports skill acquisition for informal learners but may also make it more likely that formally taught musicians will continue to play after formal tuition ends...what also emerges is that tuition without context is potentially unsatisfactory and there is an indication from some of the musical life histories that a classical training may leave musicians without context in which to play after tuition ends'.*

Cope's findings were not directed at popular music learning specifically, and maybe because it was not limited to the parameters of popular music that made his findings intriguing. When framed within the context of popular music learning, it implied that popular musicians who learnt solely from formal instruction would be more likely to be at a loss in terms of what to do with their skills after tuition ended. While it was a bold claim, it was not an unsupported one, and it correlated with Lebler and Hodges' (2017, p.273)

assertion that an apprentice's reliance on his/her/their master's teaching was 'cultivated, possibly at the expense of the development of autonomy'.

Green's (2002) and Robinson's (2010) findings also found that those who participated in informal learning were more motivated to learn and practise, as opposed to their contemporaries who only partook in formal tuition; they were more proactive, self-motivated and 'in charged' of the mastery of their craft, and this was logically understandable. Those who learnt informally took charge of most aspects of their learning; what to learn, how to learn it, how long were they going to learn it for, and how to achieve what they wanted to achieve. They taught themselves essentially. On the other hand, those that had formal training were more often than not, given instructions, rather than having to take charge of their learning actively. Therefore, it was only logical that after years of passive accumulation of skills and training, they appeared to be less proactive than their informal counterparts. Consequently, aspiring students who went through the formal route of becoming a popular musician would enter the field with arguable polarised dispositions to their informal counterparts and predecessors, as they experienced contrasting learning cultures.

CREATIVITY AND EXPERIMENTATION

The discourse surrounding the impacts of 'self-taught vs receiving tuition' also extended beyond learning culture to the question of creativity. As argued by Alper earlier, popular music was commonly associated with the unique and the unconventional (possible because no one told them that was not how it was typically done), in creating an individual sound through experimentation; experimentation that usually occurred without external instruction. One quote from an interview with a faculty member in Alper's (2007, pp.160-161) study succinctly encapsulated this incompatibility,

> *'I'm not sure if popular music can be taught in a lesson. There's something anti-lesson, anti-higher education about most popular music and they almost don't belong together. It seems like an inherent contradiction. Part of the way popular music works is the self-taught aspect of it, and the communal aspect of the way a band operates. The hierarchical relationship of the private lesson seems to be at odds with the spirit of it'.*

Parkinson and Smith (2015, pp.95-97) also highlighted other contradictions of authenticity within HPME, such as how the presentation of popular music practices as 'skills and knowledge that [were] to be taught and learned' was absolutely 'antithetical to ideologies of authenticity rooted in natural expression'. Also, programmes with pedagogies that were designed with employability agendas, and to 'accommodate popular music as a holistic genre', contradicted with 'a range of ideological and aesthetic values' that were not only 'encoded in the taste, practices, and genre affiliations of musically diverse student cohorts', but also 'exist in counterpoint to institutionalised culture'.

NOTATION

While it was undeniable that popular music and notation were not common bedfellows, there was a dominant presence of notation in the academic study of popular music. However, this contradiction went beyond musical practice. Alper (2007, p.160) argued that 'much of the complexity in popular music cannot be properly explained using the conventions with which they [were] (faculty) familiar. For example, the rhythms and melodies heard in many popular music vocal styles cannot be sufficiently communicated through standard notation'. In short, the tool that institutions employed as a means of transmission failed to communicate the essential intricacies and nuances of popular music competently, contributing further to the notion of a narrow understanding of the music.

MUSIC ANALYSIS

In terms of analysis, observations by popular music scholars such as Shepherd (1982), Middleton (1990), and Wicke (1990) stroke a chord with those of jazz writers. They asserted that the Western Art music model of music analysis was an inadequate approach to scrutinise and study the entirety of popular music, that it risked producing distorted interpretations (Covach, 1997, pp.82, 85). However, Covach argued that it would be a mistake to discount it altogether and advocated for closer engagements between music theory and popular music for there was potential for 'intradisciplinary benefits of this possible reciprocal relationship' (ibid., p.85). Not least, 'enriching our perspective on current analytical paradigms', but also in 'developing an analytical apparatus that [tracked] these and other kinds of timbral relationships in rock music' which in turn, could be applied to other repertoires (p.84). He also asserted that developing an entirely new approach for

analysing popular music '[seemed] extreme' and 'it [presumed] that popular and art music [were] entirely different from one another' (Covach, 1997, p.85). Covach's arguments were convincing and appeared to be the appropriate way forward to approach this incompatibility between popular music and existing modes of music analysis. Nonetheless, it did not solve the current predicament in popular music pedagogy.

Addressing the Contradictions

Covach was not alone in his efforts, other popular music educators and scholars were also increasingly aware of the contradictions. They had been attempting to address and consolidate the pedagogic contradictions that have become apparent by 'reappraising traditional education frameworks, seeking new pedagogies and in some cases, adopting or adapting what has been referred to as "popular music pedagogy"' (Lebler and Hodges, 2017, p.273).

In response to his criticism of current popular music curriculum's similarity to its classical counterpart, Bennett (2017, p.294) endorsed a 'reverse-engineered' approach to designing curriculum that at the same time was reflective of Western classical music curriculum design. Arguing that classical music education came into existence to 'provide people who could fulfil society's musical needs', such as 'players to fill its orchestras, teachers to sustain itself and, occasionally, composers to provide content', he insinuated that the field was driven by an employability agenda (ibid., pp.285-286). Hence, popular music curriculum should similarly be designed with that vision in mind and 'teach skills that can supply the needs of the listeners their students intend to serve' (p.287). These skills were dissimilar to that of what a classical musician would need, and therefore, popular music curriculums that were designed with reference to classical curriculums, did not meet this aim, and 'at best would generate session musicians who could succeed in particular roles in music performance' when 'in popular music, songwriting, arrangement and production [were] as important as the ability to play an instrument' (pp.289-290). Similarly, Westerlund (2006) as cited by Lebler and Hodges (2017, p.273), asserted that 'the traditional focus on performance and composition' might not sufficiently prepare graduates for 'professional lives that [were] likely to include a wide range of musical and paramusical activities'. To that end, Bennett (2017, p.294) proposed that PME should be designed backwards 'from

the musical product to identify its creators and therefore the requisite learning'. Arguing that 'the broader their skill sets and the wider their personal listening canons, the better placed they [would] be to respond to whatever creative gigs might come their way' (Bennett, 2017, p.295); PME should include songwriting, marketing and distribution, popular music studies, acoustics, and a range of transferable skills that enhances employability (pp.290-294). Even though Bennett's focus was on curriculum design rather than pedagogic contradictions, his arguments highlighted the contradictions in terms of skill emphases, which implicitly informed pedagogy.

In Lebler and Hodges' (2017, p.272) study on 'the functions of participatory assessment and holistic pedagogical practices' and 'the role of accessible recording technology as a source of instant feedback and as a creative tool', they found that pedagogical structures that allowed for do-it-yourself (DIY) practices could enhance students' skills in manners that were 'appropriate and useful in the current popular music context' (ibid., p.281). A structure where 'many of the activities included in the formal assessment process [could] be found in the learning of popular music outside structured formal learning environments' (p.276). The pedagogical structures that Lebler and Hodges proposed involved teachers taking on the role of a facilitator that '[responds] to his/her students' needs, regulates control levels and differentiates instruction by giving and removing assistance', and 'emphasizes individuality, differentiation and freedom' (Cremata, 2017, p.76). Such facilitation in PME 'promotes democratic, autonomous, diverse, differentiated, collaborative and inclusive learning environments' (ibid, p.76).

In essence, they were propagating the incorporation or emulation of popular music learning practices that occurred beyond institutional walls and to encapsulate them within formal structures, to create what Wenger (1998) termed a 'community of practice' where students were situated within a 'scaffolded, self-directed learning environment' which ultimately allowed for the development of the 'autonomous practice of popular music' (p.276). What Lebler and Hodges endorsed were efforts to 'formalise the informal', to create, albeit to some degree, a simulated environment that reflected more closely to the traditional ways in which popular musicians had been learning all this time.

They were not alone in their positions, Dunbar-Hall (2009, pp.61, 76) postulated that music education 'needs to consider the alignment between music and its contextualised transmission' and 'engage in ethnopedagogy', to devise pedagogic strategies that reflected the music culture that was being taught. While not predominantly about popular music, the author's arguments coincided with those from popular music scholars cited above.

As demonstrated, popular music educators and scholars were very much aware of the field's contradictory state, and there had been growing efforts advocating for change. These efforts largely involved incorporating informal practices into formal settings or creating simulated environments that encouraged learning experiences that allowed agents to develop skills, dispositions and values that aligned with the music culture they intended to be a part of. However, these 'solutions' were not without controversies. Dyndahl and Nielsen (2014) argued that a strong emphasis on informal learning in popular music pedagogy, 'where the teacher should do as little as possible', could also result in a narrow understanding of popular music. Students would be given more autonomy to devote themselves to music of their liking and thus, 'may lose opportunities to meet new, and for them, unfamiliar music'. It could also lead to other unintended forms of power to work in covert ways, which would limit or hinder the learning opportunities of some students (and genders). Female students, more often than not, being vocalists, would be at a disadvantage in this kind of learning community for 'singers [would] be more dependent on the band as a learning arena than the band and instrumentalists need singers' participation to create functional learning situations' (pp.112-113). Despite its criticisms, these efforts were still in their infant and developing stages, and it would be interesting for future scholars to examine the extent of their success in achieving their respective aims.

Summary

The burgeoning of HPME was accompanied by the development of programmes that had diverse compositions of components (liberal and vocational) that could be traced back to the origins of the discipline. While external stimulations forced institutions to restructure their programmes to include similar levels of vocational and liberal elements, the pedagogies employed in HPME created environments in which aspiring individuals accumulated experiences, attitudes and values that did not always align with those from

outside institutional walls. These disparities arose because HPME pedagogies, in many ways mirrored those from the Western Art music tradition, rather than developed from practices of popular music-making. The reason for emulating the Western Art tradition was that popular music faced academic discrimination, and thus advocators for PME needed to legitimise the study of popular music. They argued its legitimacy by measuring it against the conventions of the institution's dominating music tradition and constructed the formal study of popular music into a pedagogic model that made sense to the gatekeepers of institutionalised music learning. However, the contradictions between popular musicians with accumulated formal learning experiences and those without, had captured the attention of popular music scholars and educators. Since then, there had been attempts to address and consolidate the pedagogic contradictions and devised strategies that more closely reflected the music culture being taught. These approaches, while appeared to address the contradictions, unfortunately, were not free from complications, and would require further adjustments in order to develop a sustainable and culturally appropriate popular music pedagogy.

While the points of discussion in this chapter mainly derived from the UK, US and Scandinavian contexts, it should be clarified that this was not because they were universally representative, but rather due to the lack of literature available on other regions. However, it could be argued that an examination of this scale was sufficient as PME in other regions mainly referenced the models from the US (Cloonan, 2005, p.78), and arguably the UK as well. Also, as pointed out earlier, geographical and cultural distinctions did not appear to be significant factors in the acquisition of popular music music-making skills (the findings of this study further strengthened this notion). Ergo, there was credence to accept that while there will be nuanced diversity in terms of PME provision on a global scale, they shared common ground on many aspects.

Conclusion

The examination of the definitional discourse of the term 'popular music' and issues informed the appropriate approach to set the boundaries of 'popular musician' in this study. At the same time, it highlighted the absence of music-making practices in the definitional

discourse and the consequences that impacted the development of formal popular music learning. As the demand for access to popular music-making skills and knowledge grew, it subsequently caused popular music learning culture to evolve beyond an aural tradition to a wide array of music-learning and -making practices where the use of notation had become common. This diversity meant that musicians who took different routes to become popular musicians arguably developed different musical proficiencies, and enculturated attitudes and values that were varied. Furthermore, the examination of HPME, that demonstrated the contradictions between musicians with formal popular music learning experiences, and those without, further supported this assertion. Understanding these issues provided the necessary context in which to understand the objective and subsequently, the findings of the study.

METHODOLOGY

Introduction

The research questions presented in Chapter 1 required methods that enabled the collection of substantial but at the same time, detailed information about past experiences, and an assessment of current musical proficiencies. Unfortunately, no study of this kind (or to this extent) had been conducted before. Thus, this study was required to design that methodology.

The process began with a study of research philosophies, paradigms and approaches with the aim to better understand where this study was situated and thus, adopt appropriate principles that would govern the study. At the same time, this research also referenced data collection measures from studies that either focused solely on learning experiences or musical proficiencies. After the initial design and development of the research instruments were completed, the robustness of the methodology and its effectiveness to acquire sought after data was determined with a pilot study. The findings from which, were informative, and necessary adjustments to the methodology were made.

Project Design

After many considerations of various factors, it was concluded that the aims of this research suited an intepretivist paradigm and an inductive approach, for the study aimed to make sense of the participants' objective test results by understanding them through the lens of their learning histories/experiences. Also, as there was insufficient research on current popular music practices, let alone the relationship between learning experiences and musical proficiencies, it would be unwise to employ a deductive approach. An inductive approach where the study developed theory from data instead was more appropriate.

The conception of the research methods derived from a pragmatist stance. As Cambridge Dictionary (2019) defined pragmatism as 'the quality of dealing with a problem in a sensible way that suits the conditions that really exist, rather than following fixed theories, ideas,

or rules', the conceptualisation of the methodology was governed by the research questions that this paper intended to answer.

The design of this study and the methods employed were also mainly influenced and informed by the methodologies of Lucy Green's *How popular musicians learn* (2002), Tim Robinsons' *How popular musicians teach* (2010), and Gareth Dylan Smith's (2013a) *I drum, therefore I am*. While the data collection methods resembled those cited above, this study addressed some of the identified drawbacks of Green's and Robinson's study (detailed in the next section) and had some fundamental design differences with Smith's (which will be detailed at appropriate points in this chapter). Also, this study referenced and adapted the musical tests of McPherson's (1995) *Five Aspects of Musical Performance and Their Correlates,* McPherson *et al*.'s (1997) *Path analysis of a theoretical model to describe the relationships among five types of musical performance*, and the test examples/exercises found in Rockschool and Trinity Rock and Pop syllabi.

How Popular Musicians Learn (Lucy Green, 2002)

As one of the most important texts that focused on informal learning practices, Green's study set out to discover the skills and knowledge associated with popular music, the journey of acquiring those skills and knowledge, the values and attitudes in learning to play popular music, the differences in musicians' experiences with formal music education and the potential for inducting these practices, attitudes and values into the formal sphere.

Green's sole method of data collection was semi-structured interviews consisting of only open-ended questions without suggestions or examples of expected answers. Her description suggested she employed the grounded theory approach, and 5-6 interviews established the main themes and sub-themes. By the 14th interview, Green was confident that the areas relevant to her research were saturated (Green, 2002, p.8). The analysis of the data not only took note of direct responses to questions but also of unintended and unexpected outcomes and topics. As there was no prompting of answers, any similarities among the accounts of several participants were viewed with great significance. Differences of opinions were also included in the analysis as points of discussions (ibid., p.13).

The 14 popular musicians (12 males and 2 females) were from Green's network, but she noted that none of the participants was closely acquainted with her[29]. Green acknowledged that her social class, gender, ethnicity and geographical location affected the sampling and that while these issues were pertinent to learning experiences, the detailed differences were the least of the book's concerns (p.12), and they were consequently left out of the analysis. Given that the core aim of the study was to discover popular music practices, values and attitudes that were potentially applicable in formal music teaching, it was understandable to regard certain background details to not be of great importance. However, one of the core aims of this study was to provide a comprehensive understanding of how popular musicians learnt, thus, in this study's case, such details should be factored into the methodology to provide a more holistic analysis and interpretation of how popular musicians learnt. The below paragraphs hence forth will describe how Lucy Green's work on the subject informed this study of the factors to examine. In addition, issues with the representativeness of the sample and appropriateness of the analytical approach would be discussed as well.

'MUSICALLY INTERESTED FAMILIES'

There were instances in Green's (2002, p.24) study where the impact of excluding certain details from the analysis became obvious. The first was the proposition that parents had important roles in the formation of a popular musician, and it was likely that popular musicians will come from 'musically interested families', as there would have been an 'increased emphasis on enculturation in popular music learning practice'. If only considering the beginning stages of the musical journey, Green had a valid point. They would also need their parents' support in more tangible ways as well, such as the acquisition of an instrument (as shown in this study's findings[30]).

However, there should be considerations to the limits of parental support. Even with full support in the beginning stages, some parents might attempt to restrict their child's

[29] There were two participants who were a former and current student, but Green professes that she does not know them well. Refer to Green (2002, p.20) footnote number 10 for more information.
[30] Zayne and Keith both noted needing financial assistance from their parents to obtain an instrument.

commitment to popular music in the later stages[31]. In addition to that, 'musically interested families' who lacked the needed financial capital may be less willing to allocate precious funds to support their child's musical learning at the expense of necessary expenditure (as shown in this study's findings[32]).

On top of that, popular musicians did not always come from 'musically interested families' or grew up in an environment where there was an 'increased emphasis on enculturation in popular music learning practice' (Green, 2002, p.24), but yet managed to make a career out of popular music performances. These popular musicians would most likely have begun to have more active interactions with popular music in a formal institutionalized context, as this would have been seen as the only legitimate way of learning music (for they were not familiar with popular music practices), and they would therefore have a different form of enculturation process to those in Green's study (as shown in this study's findings[33]).

Hence as demonstrated, coming from 'musically interested families' alone should not be considered a sufficient determinant, and social, cultural and financial factors should be discussed alongside parents/family's influences in the topic of music learning histories.

USE OF NOTATION

Another instance where the impact caused by the lack of consideration towards the factors mentioned above became obvious was the topic of popular musicians using notation to aid their learning. The way participants' use of notation was quoted and discussed suggested that it was done solely to affirm the notion that popular musicians did use notation during the learning process[34]. There were no further discussions as to why they used notation in those ways, despite being in possession of relevant information already discussed under another topic. The discrepancies in their usage of notation could be explained by the musicians' social or cultural experiences, and thus, could have developed into relevant

[31] Some parents may not view 'popular musician' as a viable career choice, but rather as a hobby. That being said, parents' disapproval may ironically act as an incentive for their child to further immerse themselves into popular music culture, especially during the rebellious teenage years.
[32] As was the case with one of this study's interviewee, Ellie; despite introducing the piano to Ellie, her mum was reluctant to support Ellie's wishes to learn the piano for financial reasons.
[33] This was exactly the case for one of this study's interviewee, Haley.
[34] There was no discussion as to why some used notation and some did not.

discussions that allowed for a more comprehensive interpretation of their learning histories. A few examples include Rob (p.69), Steve (p.70) and Emily (pp.70-71).

In Emily's example, Green stated that she used notation, mixed with listening and copying to learn music that she liked, but did not explain further why Emily did so. A brief look at the appendix provided in the book showed that Emily had six years of classical cello training in her early teens (p.220). Given Emily's extensive classical training background, it would have been second nature for her to turn to the familiarity of formal-based strategies to learn music by then, no matter popular or classical.

The findings in Woody and Lehmann's (2010) study that compared the efficiency of learning a melody by ear between music students with formal classical training only, and those with additional vernacular experiences, supported this speculation. Their findings highlighted the approach of the 'formal only' students, which was reflective of their past training that focused on translating the notes on the score into finger movements[35]. In other words, it became a habit for them to approach the learning of any music in the way they were trained. This point was further echoed by Jones' (2014) study that found it was difficult for students with prior notation-based instruction to break free of their formal learning habits. Given the information Green provided of Emily, it strongly suggested that her prior classical music learning experiences influenced her preferred learning methods in popular music.

Green also briefly mentioned that five of the musicians in the study had minimal notation reading skills, and all felt that this was a disadvantage and had to catch up later on. However, there was no attempts to address the reasons behind their minimal reading skills and their change of minds [36]. Answering these questions could help fill in the gaps in the interpretation of their values and learning preferences, and subsequently generate more holistic understandings of not just how popular musicians learnt, but of how popular

[35] Their findings highlighted the amount of conscious attention that was devoted to physically produce the melody on their instruments; unlike those with vernacular experience, 'most of the formal musicians consciously focused on fingerings, slide positions (trombone), and mallet strokes (percussion)' (Woody and Lehmann, 2010, p.109).

[36] Was it because they lacked the opportunity to learn? Did they disregard it? If they had disregarded it, why? Moreover, what changed their minds later on?

musicians' dispositions shaped their learning preferences (as shown in this study's findings[37]).

Therefore, as illustrated, consideration towards social and cultural details that were relevant to musicians' use and reliance on certain practices could potentially result in a more comprehensive understanding of the subject.

REPRESENTATIVENESS OF THE SAMPLE

In the discussion of the self-conceptions of different categories of popular musicians, Green (2002, p.46) proclaimed that they generally assumed the role of a session/freelance musician, a cover/function band musician, or an originals band musician. She went on to state that 'most popular musicians will experience two or more of the activities involved in these musician categories at various points in their lives'. It was not entirely clear at this point what this statement meant, but further readings of Nanette and Terry's examples suggested Green meant that they would experience two or more activities from one category at each time and may cross over to other categories at another time (ibid., pp.51-53). What was surprising here was that there was no consideration of the fact that some musicians may undertake two roles at the same time. Many popular musicians today have portfolio careers where they were expected to work in multiple roles (Burland and Pitts, 2007, p.305), and their habitus were 'systems of durable, transposable dispositions' (Bourdieu, 1990, p.53) that could adapt according to the work or environment that they engaged with, and 'this is the modus operandi of many a successful musician' (Smith, 2013b, p.33).

It does make one wonder why this matter was not discussed, but based on Green's discussion of her methodology, the only conclusion would be that this issue did not emerge in the data. Research interest into popular musicians was relatively new, and while the body of literature had been growing, there was none that directly discussed the roles of performing popular musicians. Hence, her discussion was solely based and focused on her participants' responses. If that were the case, it would suggest that the exploration of how popular musicians learnt would further benefit from an examination with a larger sample.

[37] The most notable instance was Zayne's experience with, and attitudes towards notation.

ANALYTICAL APPROACH

The discussion of Green's presentation of findings concerning notational use and reliance demonstrated a pattern throughout the book. Findings were treated and discussed as separate individual topics, without considering how participants' responses to one aspect might provide useful insights to produce meaningful interpretations of another aspect. Even though Green offered participants the opportunity to review the penultimate draft, the fact that these details were neither included in the writing nor factored in the analysis process, meant that the interpretations of the findings presented to the participants were as accurate as it was. However, the issue here was not the accuracy of the findings' interpretation, but the inadequate exploration into how popular musicians learnt.

The analytical approach emerged as an issue for this study only because of the emphasis placed on the overarching aim of the book, which was to identify aspects of informal learning that had the potential to be integrated into formal settings, rather than a comprehensive investigation into how popular musicians learnt. The main reason any fault could be found with Green's study was because the aim was only to answer *how* popular musicians learn, and not *why* they learnt the way they did. Therefore, this study intends to stand on Green's shoulders and fill in some of the gaps brought to light by her work by also examining *why* popular musicians learnt the way they did.

Although the paragraphs above may suggest that Green's work was flawed, it was unreasonable to expect one study to cover all aspects pertaining to the learning experiences of popular musicians and answer all questions that arose from it. Also, Lucy Green did not fail in her endeavour; her findings were valid, and she did succeed in discovering *how* popular musicians learnt. Her findings were widely recognised and referenced[38], and it inspired many subsequent pieces of research into popular music learning practices and its application in formal settings that ventured more in-depth into the learning histories of popular musicians (including this study). Two examples were Tim

[38] A quick search on Google Scholar also showed that Green's book was cited 1487 times by 24 November 2017.

Robinson's *How Popular Musicians Teach* (2010) and Mark Irwin's *Teaching the Way We Learnt: A Study in Popular Music Education* (2016)[39].

How Popular Musicians Teach (Robinson, 2010)

The title of Robinson's study was adapted from Green's study which should in itself explain the book's influence and significance on his study, which among others, also include methodology. In doing so, Robinson's project resolved some of the issues this study mentioned about Green's book, but it presented other issues of its own.

Robinson's study sketched out the learning histories and teaching methods of eight popular music instrumental teachers from Bristol, Bath and South Wales and detailed the factors that influenced their teaching strategies, beliefs, attitudes and sense of identity as teachers. The study utilised semi-structured interviews consisting of only open-ended questions to gather part of the data needed; in comparison to Green, Robinson included suggestions or examples of expected answers. Besides interviews, data was also gathered from class observations to provide a form of 'triangulation' that could enhance the reliability of the interviews. Robinson also employed the grounded theory approach, and by the time four interviews and three class observations were conducted, the conceptual outline had already been established, which not only confirmed existing literature on how popular musicians learnt but also suggested novel areas not yet explored. Subsequent data gathered only served to confirm analytical approaches that had already been developed.

Just like Green, Robinson also noted the effect of his gender, social class, ethnicity and geographical location on his sample. However, in contrast to Green, Robinson not only acknowledged the significance of these factors but attempted to recruit more women and non-white musicians. Unfortunately, all were unsuccessful for a variety of reasons (pp.26-27, 30-31). Furthermore, Robinson exhausted all possibilities to recruit from outside his network, but it was of little avail. Consequently, Robinson's sample were primarily from his network; some knew the researcher personally, some engaged with musical collaborations with him before, while others were referred to by friends.

[39] Irwin's (2016) methodology was not referenced for his study employed action research methodology.

REPRESENTATIVENESS OF THE SAMPLE

Though the sample in Robinson's study was such partly due to the availability of musicians willing to participate, it would have benefitted from the inclusion of more 'conventional' popular music instrumentalists, such as a lead guitarist or a drummer[40]. Also, the youngest participants in the study were age 30. Although Robinson attempted to justify his sample's age range by arguing that it was 'plausible that…most musicians will want to accumulate at least a reasonable amount of musical experience before starting to teach' (Robinson, 2010, p.30), this assertion was contradicted by his findings that showed participants' willingness to take on teaching opportunities regardless of experience (pp.204-205). As evidenced by the studies reviewed earlier, the learning experiences of popular musicians changed with each generation, and it was within reason to assume that musicians below the age of 30 had different learning experiences, values and attitudes that would inevitably influence their teaching strategies. Given that the sample only consisted of a limited range of instrumentalists who were of a particular age group, Robinson acknowledged that the paper only portrayed how *some* popular musicians taught and was not sufficient enough to make generalised narratives about this community. On the other hand, depending on how one defined popular music, it could be argued that the sample was not focused enough (instrument-wise).

PROCEDURAL AND ANALYTICAL APPROACH

Although most interviews and class observations conducted took place no more than seven weeks apart from each other, due to availability reasons, two class observations were conducted more than two years after the interviews. Robinson confessed that this might have caused discrepancies between the interviews and class observations, as their teaching strategies may have changed since, and no longer corresponded with their initial interview responses. It was odd that Robinson was aware of this but did not alleviate this precarity by re-conducting the same interview once more or request the participants in question to review their responses from two years ago and decide if it warranted any amendments.

Another issue worth discussing was the emphasis given to a particular participant named Bill, who only provided interview data. Bill's interview provided fascinating points of

[40] Refer to Robinson (2010, pp.28-29) for details of participants.

discussion, and thus understandable that the author would not only retain his interview account but spend much of the study discussing it. However, Robinson mentioned that the rationale for class observations was to provide a kind of 'triangulation' to strengthen the validity of the interview data, so it seemed inconsistent that the author would base many discussions on data he could not validate.

Summary

Following in the footsteps of Green and Robinson, this study employed similar methods of data collection, but with measures put in place to address the limitations in their research. Green's attempt to study popular musicians ultimately excluded certain details that would have contributed meaningful insights to the understanding of popular music learning. Also, her study did not address the influential relationships from one aspect to another, but instead opted to discuss each emerging theme independently from each other. Furthermore, the interviewees in Green's study were arguably unrepresentative of popular musicians, even within the context of the UK. Robinson's efforts addressed some of these drawbacks but were faced with other issues as well, which primarily was in relation to the representativeness of the sample and data collection and analysis processes. Last but not least, the sample sizes in both studies were arguably small, and even Robinson acknowledged the limitations of his sample size.

In the light of these concerns, this study attempted to build on the works of Green and Robinson, to fill in the methodological gaps left by earlier research. These concerns informed the drafting of the research questions and data collection measures in which to capture data relating to participants' lived experience in their social, cultural and musical world, and how these variables intertwined with their development as a popular musician. Efforts were also taken to recruit a more substantial sample and to ensure that all data-gathering processes conducted were close to each other to prevent any alleged digressions between interview responses and test performances. The following subchapters will further detail the measures taken.

Development of Methodology

As explained above, the absence of an existing methodology rendered the need to design one that meets the objective of this study, which is to examine the relationship between music learning experiences and acquired musical skills. Given the relatively young age of the discipline, there was a lack of research for a methodological reference. Therefore, this research combined methodologies from studies that had overlaps in objectives and adapted them to meet this study's core aims.

The resulting methodology resembled a cross between the methodologies from Robinson's (2010) thesis and the range of research cited in Chapter 1 that studied the development of musical skill proficiencies of specific pedagogic models. The drawbacks of many pieces of research that studied the effects of specific pedagogic models were that post-tests were conducted immediately after a short period of treatment, and often without consideration of prior musical backgrounds of participants. On the other hand, Robinson's study examined popular musicians learning histories and the extent it informed their teaching practices, by conducting interviews and class observations. Therefore, by replacing the class observations with musical skills tests similar to those in musical proficiencies studies, but retaining the interviews, allowed this study to achieve its objective of focusing on the long-term effects of the participants' learning experiences and the effects of experiencing one mode of learning before the other (formal/informal).

However, to ensure the validity of the study, the final methodology was only arrived at after accomplishing a rigorous development process. The following sections detail the initial methodology and the process of refining it through a pilot study to ensure the robustness of the data collected, which informed the final methodology (including the sample size). The rationale for this section was not only to disclose justifications for decisions made, but also because this study created and tested a methodology, and the development of a novel methodology is a contribution to knowledge. Incidentally, the process of developing the final methodology also generated unintended new knowledge.

Initial Methodology

Initial Sample Size

In the light of drawbacks of Green and Robinson's sample sizes, this study initially proposed to recruit 20 participants. This figure was arrived at with considerations of the data collection methods (interviews + musical skills tests), the objectives of the study and the restrictions of a PhD project.

Initial Research Instruments

As the core of this study was to examine the relationship between learning experiences and the acquisition of musical skills, it was determined at this point that interviews and musical skills tests were sufficient for the reasons below.

In addition to referencing the data collection methods of Green and Robinson, interviews were one of the chosen modes of data collection as it allowed the researcher to 'gain insight into things like people's opinions, feelings, emotions and experiences' (Denscombe, 2007, p.174). The insights were of paramount importance because a holistic account of the participant's learning history was required to answer the research questions. While preferable, the observation of the participant's learning history was neither physically nor logically possible, which provided even more reason to argue that interviews were the most appropriate mode of data collection in this context, as it not only allowed the researcher to elicit historical information from participants but also control the line of questioning (Creswell and Creswell, 2018, p.188). The only aim of the interview was to obtain information that could provide relatively holistic learning experience narratives that would not just answer the research questions but also give credence to the findings.

Musical tests were employed to measure each participant's proficiencies in a variety of musical skills that were conventional to popular music performance practices. The tests included items that examined the participant's level of proficiency in sight-reading, playing by ear, improvisation and prepared performances.

These decisions stemmed from the pragmatist stance, with the sole purpose of answering the research questions. A holistic account of the participants' learning history (from the interviews) would not only generate intimate insights that would accomplish RQ 1, 2 and 3 but also allow for a comprehensive understanding of their proficiencies in each skill tested. This, in turn, would answer RQ4.

DEVELOPMENT OF INTERVIEW QUESTIONS

As reiterated above, the methodology of this study was rooted in the philosophy of pragmatism. Thus, the conceptualisation of the interview questions began with the brainstorming of questions that could be categorised and aligned with one or more research questions. However, this process faced a challenge very early on when attempting to delineate questions regarding participants' formal/informal experiences and notation-based/ear-based practices. This challenge derived from the fact that formal and informal learning contexts and their perceived respective practices were not, or rather were no longer dichotomously exclusive.

This phenomenon was captured and explored in studies such as Green (2002), Green (2008), Smith (2013a), Irwin (2016), Robinson (2010), Rodriguez (2009), Mok (2014) and Virkkula (2016). From a guitarist who taught himself to read and understand Western music notation, to pedagogies that incorporated informal characteristics, and even to identifying formal qualities in informal learning practices and vice versa, the blurring of lines between formal and informal learning and the practices involved had become increasingly prominent, as evidenced by the literature cited in the previous chapter. One example was institutions that provided popular music education. While the emphasis and teaching might still revolve around notation, that emphasis did not replace ear-based practices entirely. Thus, there was still a significant presence of informal practices in formal popular music learning environments.

Another example was the self-learning of Western standard notation and music theory which used to be quintessential features of and perceived to be synonymous with formal music learning and those privileged enough to learn them. However, technological

advancements opened the doors to all forms of information, and not only presented enthusiasts of popular music with an even more diverse array of learning opportunities, but also made those opportunities more accessible as well. It became possible to self-learn music notation and theory as learning materials were abundant online, including textual and visual tutorials. Folkestad (2006), as cited by Smith (2013a, p.27), succinctly portrayed this phenomenon in his assertion:

> *'"Formal-informal should not be regarded as a dichotomy, but rather as the two poles of a continuum" because "in most learning situations, both these aspects of learning are in various degrees present and interacting"'.*

Smith (2013a) termed this amalgamation of context and practices as 'hybridized' learning practices, where key features of formal, informal and non-formal learning may be present regardless of where or how the learning took place.

The blurring of formal/informal and notation/ear brought into question whether closed-ended questions were appropriate for this cause, which led to the consideration of open-ended questions. Eventually, this study decided on a structured interview with both open- and closed-ended questions. The reason for closed-ended questions was that it would condition the participants to the same language or response options, which benefits the process of data analysis and comparisons between the various learning experiences. Open-ended questions on the other hand, allowed for elaborations and explanations.

There were also considerations of employing a basic questionnaire to weed out participants who did not fit into the categories of descriptions that this research was studying. However, participants with learning experiences that did not fit nicely into the defined categories were of value to this research as it would provide evidence that propagated the argument for the evolution of popular music learning culture.

This thought process led to the realisation of a broader problem, the categorisation of the participants. The nature of the research questions required participants to be categorised based on their experience of formal and informal learning. However, the diversity in the learning experiences of popular musicians today rendered categorisations based on earlier

assumptions of learning context and practices impossible. Therefore, rather than relying on existing assumptions of music learning experiences, this study attempted to create a typology independent of those assumptions, with formal/informal learning context and ear/notation practices as separate variables. Establishing a typology not only allowed for the categorisation of participants, but also the division and categorisation of interview questions.

It should be clarified that this study used the terms 'formal' and 'informal' in ways that were different from Smith's (2013a). He used 'formal', 'informal' (and 'non-formal') learning to describe characteristics of learning practices (commonly associated with the terms above) that occurred during the learning process (pp.26-28). This study on the underhand, used these terms to strictly refer to the contexts in which the learning took place; within a lesson (formal) or outside of it (informal). The practices engaged with during those contexts were instead broadly categorised under 'ear-based' or 'notation-based' practices. This method of categorisation (notation/ear) is simplistic in that it fails to capture the intricacies of the complex nature of learning, such as those addressed by Smith (2013a). However, the reason for this method of categorisation was because the aims of this study required elements of music learning to be delineated into quantifiable variables; to determine the types of practices that were present in the different types of learning context, and their independent influence on the acquisition of musical proficiencies.

Musician Typology

The four factors in question were 'formal context', 'informal context', 'notation-based practices' and 'ear-based practices', categorised into learning contexts (formal/informal) and learning practices (ear/notation). In consideration of the fact that the issue that came to light during the process of designing the interview questions was that the learning practices no longer fit nicely into pre-defined contexts, the first step taken was to delineate learning contexts and learning practices independently from each other.

Based on the earlier discussion in Chapter 1 of the learning histories of participants in Green's (2002) study, popular musicians fit into four categories; those that only had formal training, those that only had informal experiences, and those that that began with formal training experiences, then came in contact with informal experiences, and vice versa.

Building on that discussion, learning contexts in this study were delineated into four distinct categories (Table 5).

Table 5: Categories of music learning contexts

Formal only *(F)*	Formal training experiences only
Informal only *(I)*	Informal experiences only
Formal to Informal *(F-I)*	Formal training experiences followed by informal experiences
Informal to Formal *(I-F)*	Informal experiences followed by formal training experiences

The common discourse surrounding practices in music learning had always revolved around the ear vs notation debate. Although current practices have become more diverse and evolved beyond just ear- and notation-centric practices, many of these 'modern' practices still relied on ear-abilities or notational knowledge, albeit to varying degrees. For this reason, all practices involved were classified into either notation-centric practices or ear-centric practices. However, as discussed in the literature review, popular musicians today while still ear-players, often incorporated notation-centric practices in their learning process as well, which led to the question of the extent in which both practices were relied on. This knowledge generated two additional categories of practices, the first being notation-centric practices supplemented with ear-centric practices, and vice versa. The practices, therefore, could be divided into four categories (Table 6).

Table 6: Categories of practices

1	Notation-centric practices only (N)
2	Ear-centric practices only (E)
3	Notation-centric practice supplemented with ear-centric practices (N+E)
4	Ear-centric practices supplemented with notation-centric practices (E+N)

Subsequently, this resulted in four contexts and four practices categories, which assumed the form of the building blocks of the typology (Table 7). These categories then rendered the process of generating a typology of musicians based on their learning experiences more straightforward than before. Given that the constants in this situation were the learning contexts, they acted as overarching 'boxes' to encompass the variety of practice combinations that might occur within those contexts.

Table 7: Categories of contexts and practices

Contexts			
Formal only (F)	Informal only (I)	Formal to Informal (F-I)	Informal to Formal (I-F)

Practices			
Notation-centric practices only (N)	Ear-centric practices only (E)	Notation-centric practices supplemented with ear-centric practices (N+E)	Ear-centric practices supplemented with notation-centric practices (E+N)

The formula was straightforward. Every 'contexts' category was paired with one 'practices' category; the same was applied to the individual learning context in the combination categories (F-I and I-F). This exercise resulted in a typology that comprised of 40 potential types of musicians based on their learning experiences (Table 8 – next page).

Table 8: Permutated musician typology

Context	Formal Only		Informal Only		Formal to Informal		Informal to Formal	
Practices	1	N	5	E	9	N to E	25	E to N
	2	N+E	6	E+N	10	N to E+N	26	E to N+E
	3	E	7	N	11	N to N	27	E to E
	4	E+N	8	N+E	12	N to N+E	28	E to E+N
					13	N+E to E	29	E+N to N
					14	N+E to E+N	30	E+N to N+E
					15	N+E to N	31	E+N to E
					16	N+E to N+E	32	E+N to E+N
					17	E to E	33	N to N
					18	E to E+N	34	N to N+E
					19	E to N	35	N to E
					20	E to N+E	36	N to E+N
					21	E+N to E	37	N+E to N
					22	E+N to E+N	38	N+E to N+E
					23	E+N to N	39	N+E to E
					24	E+N to N+E	40	N+E to E+N

Typologies generally exhaust all categorisation possibilities, but this study took into account the 'realistic-ness' of the types. Though argued that the delineations between context and practice were blurred, the traditional practices of each context were still significantly prominent. Thus, a relatively realistic (though speculative) typology was drafted (Table 9).

Table 9: *Realistic typology*

Context	Formal Only		Informal Only		Formal to Informal		Informal to Formal	
Practices	1	N	3	E	5	N to E	9	E to N
	2	N+E	4	E+N	6	N to E+N	10	E to N+E
					7	N+E to E	11	E+N to N
					8	N+E to E+N	12	E+N to N+E

In determining the viability of the typology, this study conducted a quick survey consisting of questions enquiring learning contexts and practices independently from each other. Participants first indicated the learning context category that best matched their own experience; this allowed for the categorisation based on context [41]. Participants that selected 'Formal only' or 'Informal only' were directed immediately to the questions about the practices involved [42], whereas those that indicated a combination of formal and informal learning experienced were first asked about the sequence in which they experienced both learning contexts before being directed to the questions about practices in the respective learning contexts. Towards the end, the survey asked participants if they faced any difficulty selecting a description that encompassed their own experiences; the answers to this question were of paramount importance to the viability of the typology[43].

A total of 15 responses were collected from a range of musicians (not just popular musicians), and the results showed that none faced any difficulty understanding the questions nor selecting from the multiple choices provided. This finding indicated that this particular method of categorising musicians based on their learning experience was viable. However, this was not the only conclusion of the experiment. Of the 15 responses, only 11

[41] Formal, informal or a combination of contexts.
[42] N, E, E+N, N+E, or a combination of practices.
[43] A copy of the typology survey questions is provided in Appendix 1.

matched the categories in the realistic typology (Table 10), while the remaining four responses corresponded to categories that were only available in the permutated typology (Table 11).

Table 10: Responses that were compatible with the realistic typology

Context	Type #	Practices	No. of responses
Formal Only	1	N	2
	2	N+E	3
Informal Only	3	E	1
	4	E+N	0
Formal to Informal	5	N to E	1
	6	N to E+N	0
	7	N+E to E	0
	8	N+E to E+N	3
Informal to Formal	9	E to N	1
	10	E to N+E	0
	11	E+N to N	0
	12	E+N to N+E	0
Total			**11**

Table 11: Responses that matched categories in the permutated typology

Context	Type #	Practices	No. responses
Informal only	7	N	1
Formal to Informal	12	N to N+E	1
	16	N+E to N+E	1
	24	E+N to N+E	1
Total			**4**

From a statistical angle, the realistic typology would be considered unsuitable as it was only able to categorise 73% of the sample. However, given the small sample size (n=15), the findings were not significant enough to render the realistic typology insufficient but instead needed to be determined with a significantly larger sample in order for a conclusive decision to be made. Therefore, it was admissible to exclude the four abnormal responses from the analysis. While that may be so, the abnormal responses were of value to this research because it acted as evidence that regardless of contexts, modern-day learning practices of musicians did differ from their predecessors as illustrated in works of literature.

It had evolved beyond the written and un-written confines of formal and informal learning cultures; music learning culture had become less homogeneous than before. This further advanced the notion to discard prior assumptions about practices that took place within formal and informal learning environments. Based on the findings discussed, the realistic typology was viable, but the research questions of this study required a comprehensive typology that allowed for the categorisation of all varieties of learning experiences. Thus, the initial permutated typology independent of existing assumptions was reinstated[44].

The establishment of a musician typology based on learning experiences provided the solution to the challenge of delineating questions in regard to musicians' formal/informal experiences and their respective notation-based/ear-based practices. With that, interview questions designed followed the eight categories in Table 7, for this classified the questions into separate sets that corresponded with each of the eight context/practice categories. Just like the context/practice categories, the question sets could potentially permutate into 40 different versions that corresponded to the 40 different categories in the typology.

The interviews consisted of questions related to their engagements with formal/informal learning and musical practices, parental involvement, identity practices, aspirations, and perception of musical proficiency expectations of the industry. These areas of enquiries chosen were primarily informed by the themes that emerged in Green's (2002) study. Factors influencing the acquisition of musical skills are broad, as was informed through the analysis of Green's (2002) book, and similarly the range of factors this study investigated, while arguably more extensive than Green's, do not cover the entire spectrum of variables. This included frequency and duration of practise, the duration of formal and informal learning, music learning in compulsory education, genre preferences, reflecting on their practice, overcoming obstacles in the learning process, etc. There were additional issues of age, gender, social/cultural/ethnical factors as well. The absence of investigations into these variables was due to the limitations of the research as stipulated in the first chapter. This study was intended to be a preliminary investigation into the subject, and further

[44] The findings in the pilot test (discussed below) also propagate the suitability of the permutated typology over the realistic version.

intricate elements relating to learning experiences and the acquisition of musical skills, such as those listed above, should be examined in future research.

It should be clarified here that this musician typology was an unintended discovery in the process of designing the research instruments, to be used solely as a means to structure the interview questions. This study did not set out to categorise participants according to this typology, but rather based on the four learning contexts only. While the usefulness of this typology in this study did not extend beyond the interview design, it is potentially useful for future studies that examine musicians based on learning context and practices.

Likert Scale

The sets of interview questions already designed at this point included questions that inquired about the participants' evaluation of self, and their values and attitudes. Initially, these questions were to be of an open-ended format to allow participants to describe their thoughts freely, but this format appeared to be incompatible with the study's analytical considerations.

While open-ended questions allowed for organic, unadulterated responses, the impending risk was that participants would use varying descriptive words in their responses, which would not just make the coding process unnecessarily inconvenient, but also create a scenario where statistical analysis would be problematic unless the qualitative data was converted into quantifiable units. Every response, therefore, needed to be analysed and categorised under a blanket term that encompassed similar responses with common meanings or connotations. This method, while viable, was cumbersome and time-consuming. Thus, this study elected to adopt a data collection method that conditioned the participants to the same language in their responses: the Likert scale. Also, a study by Wrightsman and Deaux's (1981, p.318) demonstrated that open-ended responses provide low reliability as participants gave different answers to the same questions on different occasions, and they endorsed the use of closed-ended questions when measuring attitudes.

After a review of relevant literature and an experiment, it was determined that the 6-point scale was suitable for enquiries relating to values and attitudes, while the 7-point scales

were appropriate for self-evaluation enquiries. The literature review, experiment results and discussions are included in Appendix 2.

Programming the interview questions

Once drafted and categorised, the questions were then programmed into Google Forms, to be used as a medium for the researcher to indicate the participant's selection to close-ended questions (for quantitative analysis) and also to take notes for the open-ended questions during the interview. It was a challenge to streamline the structure of the questioning because the questions asked of each participant depended on their musician 'type'. The initial attempt was to create one set of questions for each typology, but it quickly became apparent that this was not feasible because Google Forms could not process 40 separate comprehensive lists of questions in one project. Also, Google Forms treated the same question in each of the 40 sections independently from each other, which defeated the purpose of using a form building tool to obtain quantitative data.

For the accomplishment of quantitative analysis, the collection of each participant's answer to the same question must be through the same point of input, which effectively meant that there could only be one section for each 'context' and 'practice' category in the entire interview design. The challenge was programming the form to proceed to the next specific set of questions after the completion of one set. Therefore, each set of questions would include a section at the end of the segment that allowed the administrator to manually select the following set of questions.

DEVELOPMENT OF MUSICAL SKILLS TESTS

It should be noted that this study only focused on a narrow aspect of skills (musical proficiencies), and that predictors of success in popular music extends far beyond the skills examined (visual branding, stage persona, networking, song writing skills, etc.). Furthermore, the musical skills chosen in this study were determined by the researcher, based on experiences working as a popular musician[45], to be skills that were relevant to numerous performing scenarios that a musician, who play musical instruments commonly

[45] Refer to 'The Researcher's Role' in this thesis.

associated with Anglo-American popular music forms, might encounter. Such instruments include the piano/keyboards, acoustic/electric guitar, bass guitar, drums, and vocals[46]. Therefore, the skills examined, and arguably the findings of this study might not be entirely relevant to other forms of musical occupations, such as artist-producers, DJs, rappers, synthesists, etc. These other forms of musical occupations require different sets of skills that this study did not examine, and they deserve a separate investigation.

All tests were of equivalent difficulty across all instruments, including drums. For example, if a test for a melodic/harmonic instrument were of a Rockschool grade 8 difficulty level, the equivalent excerpt for drums would be of a grade 8 level as well. If an excerpt prepared for the piano is in the key of C, it would be transposed to Eb for an alto saxophone; the concept of 'equivalent difficulty' here was based on the technical difficulty of the instrument.

The level of difficulty of the test items set was in consideration of industry expectations of professional musicians. While participants may have different aspirations, the fact that they aspired towards (or have) a musical career, allowed this study to assume that they were in some ways working (or had worked) towards that direction, regardless of learning background. The challenge of defining what the industry expected of musicians was that there were no clearly outlined expectations besides that which was colloquial knowledge among musicians themselves. A survey or questionnaire answered by practising popular musicians would provide this information, but that would be a whole separate examination in itself, and the constraints of this study did not provide the researcher allowance to obtain primary data on the subject. However, studies should examine this in more detail in the future.

Despite the lack of literature on industry expectations of musicians, it could be inferred by referring to the syllabi of music programmes whose objective was to train their learners to be professional musicians. While university music programmes did not make the details of their syllabus accessible to those outside the programme, popular music examination

[46] This is not an exhaustive list.

boards did. Rockschool claimed that their qualifications were industry relevant (Rockschool, 2020), and Trinity Rock and Pop asserted that their syllabus enabled one to 'develop the improvisation and playback session skills that professional musicians need' (Trinity College London, 2017). Both examination boards claimed to provide learners with the necessary skills and knowledge that met the expectations of the industry. Therefore, the level of technical and musical difficulty was aligned to the detailed syllabus of the highest-grade level that was accessible; Grade 8.

It was not possible to gauge or set a 'musicianship' level threshold that was fair to all, as the skill sets desirable or necessary for a session musician, was arguably less crucial for those who did not aspire to be one, and vice versa. Be that as it may, the parameters of the musical skills tests were set as such, for the purpose of defining a difficulty threshold was to establish a standard to be used as a point of reference for the description of the test results, similar to how rock music critics used genres as a point of reference to describe music through comparisons (Frith, 1998, p.88).

Test Items

All test items (except prepared performances) included one practise item and two test items. The purpose of the practise round was to allow the participants to warm up, as well as to get a taster of the actual test. On the other hand, testing the same skill twice was for triangulation purposes. There would be differences in terms of pitch, rhythm, harmony, articulation and dynamic markings, but all items would be designed within similar parameters as stipulated in the syllabi of the examination boards mentioned above.

Each test item (except prepared performances) was composed/created by a professional musician, commissioned by the researcher, on the music production software Logic X. The score was prepared on the music notation software Finale[47].

[47] A copy of the test items is provided in Appendix 3.

Sight-reading

Certain popular music cultures such as those mentioned in the introduction of this thesis thrived without the use of notation, but the test included the examination of sight-reading or notation-reading abilities, as they were arguably indispensable for (some) professional musicians to sustain a career in the industry. There were instances where notation reading and understanding of Western notation systems were essential to secure performing employment (musical pit musicians, session musicians, etc.). Proficient notation reading abilities were also beneficial in collaborations where there were minimal rehearsals. Also, it could aid communication between musicians, not only when communicating with those who were familiar with notational knowledge, but also because there would be an understanding of the same language among musicians.

While this study aimed to mimic real-life situations and acknowledged that there was wide use of lead sheets/charts/tabs among popular musicians, full scores were not uncommon as well. Therefore, fully notated excerpts were chosen for this test as they contained the most information to be processed.

The participants would need to reproduce eight bars of music with the backing track, exactly as it appeared on the score after 90 seconds of preparation time. No audio reference was to be provided. Before receiving the score, the participant would listen to the backing track once.

Play by Ear

The ability to reproduce on an instrument, a musical excerpt that was just heard is arguably a quintessential skill that a popular musician needed to possess. As discussed earlier, playing/learning by ear was a central practice in popular music performance cultures. On top of that, there were practical benefits to playing by ear; examples of scenarios included unplanned changes in a performance that required immediate responses, which in some cases required the musicians to be able to identify melody, harmony and rhythm on the spot and immediately reproduce them. Another scenario would be working on a project or with musicians who were ‘ear-players’.

The participants would be required to reproduce eight bars of music, precisely as heard. The excerpts would be played back four times on an audio device and reproduced by the participants on their respective instruments.

While it was common practice today to use both notation and audio tracks simultaneously in the learning process, this study would test these skills separately rather than in combination to determine direct correlations between learning experiences and the individual skills.

Improvisation

While the ability to 'create on the spot' is more widely associated with the jazz tradition, it is not too foreign in popular music practices. Many popular musicians improvise when jamming with peers, or when instructed during a performance (with or without due notice). Just like the ability to play by ear, the ability to create music or respond appropriately on the spot is highly valued in popular music performances.

This test consisted of two test sections of different natures.

1. Section 1 required the participant to improvise a 4-bar call and response exercise.
2. Section 2 required the participant to improvise over an accompaniment without knowledge of the key.

The participants would listen to the backing track only once and be required to provide a response on the second playback. However, they may immediately respond to the first playback if they choose to do so.

Prepared Performance

In contrast to the 'Rehearsed music' test in the 1997 study by McPherson *et al.*, participants would be asked in advance to prepare a performance of his/her/their choice, self-evaluated to be the best performance he/she/they could display: an epitome of their musical capabilities. There would be no restriction on the style/genre of popular music[48].

[48] Similar parameters to performance requirements in programme entry auditions.

The free-choice decision was based on three factors; the understanding that popular music is diverse and varied, and that each individual would be more familiar with particular styles/genres. Also, as discussed earlier, how one defined popular music could be just as diverse and varied as the music. Therefore, standardising the test to one song of a particular style or sound would not provide this research with the desired data, and it might not allow the participants to showcase the extent of their musicality; to perform in, for lack of a better description, their individual 'natural habitat'.

Initial contact with the participants, to explain the research and set a date and time for the interview and tests, included informing them to prepare a performance, either with a backing track or with a band. They would also perform on their preferred instrument and in their chosen environment. However, taking into account the participants' willingness to volunteer time and effort, the study also allowed them the option to submit a video recording of their performances.

Assessment Criteria

The researcher constructed the assessment criteria with reference to Rockschool and Trinity Rock & Pop's Grade 8 level assessment criteria, and each test (and instrument) consisted of a different combination of criteria in Table 12[49] .

Table 12: Music test assessment criterions

Criterion	Description
Notation/pitch	Accuracy of pitch or drum sound
Rhythm	Accuracy of rhythm regardless of pulse/timekeeping
Sync (with track)	Adherence to the pulse/timekeeping regardless of rhythm accuracy
Musicality	Displays of musical sensitivity
Creativity	Displays of musical creativity
Improvisation	Conviction and suitability of improvisation to the music
Style	Displays of stylistic understanding and realisation of musical detail
Communication	Communication of music and engagement

[49] The complete criteria for each test is provided in Appendix 3.

Pilot Study

Objective

After the development of the research instruments, this research conducted a pilot study with the sole purpose of determining the robustness, feasibility and effectiveness of the interview questions, the musical test items and assessment criteria.

Participants

The three participants that participated in this pilot study were either current popular music degree students or recent graduates and were all recruited from the researcher's social circle.

Procedure

At first contact, each participant was informed of, the purpose of the study, the reason for contact, data to be collected and treatment procedures, how their data will be used and ultimately destroyed once it had served its purpose, before obtaining consent. They were also informed to prepare a performance and agree on a time, date and location for the interview and music test to be carried out. On the day, participants had the option to either undergo the interview or music tests first.

The procedure of the interview involved the administrator going through the interview questions programmed on Google Forms, and inputting the participant's responses into the form, which simultaneously acted as a note-taking medium for open-ended questions. The entire interview was also audio recorded on two separate audio recording devices to capture any discussions or exploration of issues that were not included in Google Forms.

Before the commencement of the music tests, participants decided on the order in which the tests would take place. Apart from the prepared performances, each test involved one practise round before the actual test, and the entire process was video recorded on one device and audio recorded on another. This whole process took approximately 1.5 hours to complete (1-hour interview and 30-minutes musical skills tests).

Assessments only took place after completing the collection of test responses from all participants, and all responses from each test item were graded (awarded points between the range of 0 and 5) in one session before moving on to the next item to ensure the consistency of assessment standards. Then, the average scores from both items in the same test were calculated to represent each interviewee's proficiency levels in that particular test. The researcher assessed the test item responses. Given the background of the researcher as a trained music professional, and with experience as a lecturer in popular music performance who conducted and assessed music exams at a tertiary level, the researcher was in an authoritative position to conduct assessments of this nature[50].

Treatment of Data

As the primary purpose of the pilot study was to determine the viability of the instruments at collecting the required data, there was no intention to conduct statistical analysis. Thus, the quantitative data obtained from Google Forms was not treated at this point.

The recordings of the interview were first transcribed before a summary based on that transcription was drafted, which was then analysed with the qualitative data analysis software NVivo, and finally constructing a narrative based on the obtained data. The responses from the musical tests, graded with the assessment criteria constructed purposefully for this study, were then analysed in conjunction with the participant's learning experience narrative.

Findings and Problems

The core purpose of this pilot study was not to answer the research questions, but rather to determine the effectiveness of the instruments designed to collect relevant data that facilitated the answering of the research questions, and the findings indicated that the instruments designed were successful in this objective. However, they were not free of issues, which needed to be addressed to enhance the competency of the data collection method and procedures.

[50] Further information of the researcher's credentials are detailed in 'The Researcher's Role'.

TECHNICAL ISSUES

The earliest problem detected was a technical one, Google Forms. There were still too many sections in the Google Forms project, and the consequence of this was that the page would take quite some time to load, sometimes even not at all. Additionally, there was a design flaw in the Google Forms that only became known during the first interview.

This design flaw affected participants who indicated a combination of learning contexts, but the same practice category in both contexts. When the interview arrived at the stage where it enquired about the practices in the latter learning context, the form would proceed to the same section (questions about practices) that was already answered in the prior learning context[51]. While this did not halt the interview, as the questions could still be asked and the responses captured with the audio recording, there was no way for the administrator to input the response into the form without overwriting the earlier response. The implication here was that this would affect the quantitative analysis, as either the earlier or later data was not captured.

Another design flaw was discovered during the data treatment and analysis process; there was no practical course of action to organise the practices-related responses based on learning contexts, and vice versa. The only way to achieve this was to go through each response manually. The ability or allowance to categorise these responses based on the variables were essential for quantitative analysis and comparisons.

Therefore, two things became evident. First, Google Forms was an inappropriate platform to meet the demands of this research. Second, the form design of eight question sets (one for each 'context' and 'practice' categories) was not suited to achieve the objectives of this study.

PROCEDURAL ISSUES

It also became apparent that the order of the questions influenced the responses. Participants were asked to describe their use of notation during their informal learning

[51] Because the participant indicated the same practices for both learning context.

periods, and this question was followed by one that sought to discover the reason for learning the way they did. The latter question was concerning the entirety of their informal learning experience, but as the question was preceded by the one described above, participants focused their answers on why they used notation in their informal learning process. Alternatively, it could also be a flaw in the question itself; the second question did not indicate explicitly it was referring to the entirety of their learning experience.

Participants also tended to perceive only their university learning experience as 'formal context', even if they have had instrumental instructions before the commencement of their tertiary music education. While the responses did provide valuable insights into the perceptions of current young popular musicians on the definition of 'formal', it was arguably more beneficial for this study to define the terminology from the onset to ensure all participants arrived at the same understanding.

There were also instances of carelessness on the administrator's part, such as skipping a component in the musical test or recording the audio only instead of video. However, to be fair, this all happened in the first session only.

DATA ISSUES

Certain issues had a direct influence on the data collected. The first issue was related to one of the points discussed above; their perceptions of formal and informal. It appeared that participants had their own understandings of what was considered formal and informal learning; some categorised formal learning as any learning that took place in school or with an instrumental teacher, while some categorised formal learning based on the practices used. One participant did not perceive his/her/their instrumental lessons as formal learning because there was no use of notation. While this discovery was valuable to understand popular musicians' delineation of formal and informal, it was peripheral to the main objective of this study. The core issue here was that their different perceptions led to mis-categorisations, and subsequently, this affected the set of questions presented to them.

The interview data obtained was insufficient to provide a comprehensive qualitative analysis of their learning experience. A possible reason was the rigidity of the interview structure, which hindered the researcher's intuition to probe certain notions mentioned during the interview, only to realise during the transcription or summarising stage that there were issues that warranted further exploration. For a quantitative study, the data obtained was sufficient, but for a qualitative study, the questions needed to be re-evaluated to allow the freedom to explore particular topics not specified in the questions.

DATA TREATMENT ISSUES

The pilot study exposed the unsuitability of this methodology; it was not feasible for the size of the study's proposed sample size as the data treatment process was overly tedious. The average duration of an interview was approximately one hour, so to transcribe, summarise and analyse a 1-hour interview and subsequently build a narrative for each participant required an excessive amount of time.

Summary

While the pilot study demonstrated the interview and musical skills tests to be appropriate measures of data collection, it brought to light issues of procedure, data and data treatment that needed reconciliation, and subsequently served as fundamental building blocks of the alterations made, and the construction of the final methodology.

Informed Changes and Final Methodology

The findings and issues identified from the pilot study informed the alterations to the research methodology to ensure its robustness, thus assuring the validity of the findings. Adjusted areas included research design and research instruments. Subsequently, the updated design and instruments also informed the recruitment strategy and further developments of the methodology.

Project Design

The most significant adjustment occurred in the design of the study itself. The initial plan to emulate the methodologies employed in Green's (2002) and Robinson's (2010) studies, which was to obtain rich details about their participants' musical history to discover and examine themes and patterns about how they learnt (and in Robinson's case, informed their teaching strategies), was inappropriate for the scale of this study. There were 14 and 8 participants in those studies respectively, but this study proposed to recruit a relatively more substantial sample of 20 participants. The reason for a slightly larger sample was because unlike the two studies cited, this study required a sample size that allowed comparisons between the different learning experiences. Therefore, the chances of acquiring comparable categorisations of the participants according to the context categories with a sample size similar to Green or Robinson's studies were not optimistic. The apparent solution was to increase the sample size. However, to administer the data treatment process (as was done in the pilot study) for the proposed sample size was not realistically feasible as well.

From a pragmatic angle, rich, detailed accounts of learning experiences and a large sample were both vital, not just for the validity of the findings, but also in providing answers to all the research questions that this study sought to answer. As detailed above, both conditions could not coexist in the initial design of the study. Therefore, the study was amended to suit a mixed-method design. The factors that contributed to this decision included the expected outcomes, the integration of the data and the limitations of a single researcher study. This study sought to discover not just how current popular musicians learnt, but also the variety of experiences and how those learning experiences impacted their proficiencies

in various musical skills. Therefore, this study required significant quantitative data (than initially envisioned) to comprehend the common/variety of learning experiences of today's popular musicians, but at the same time, the study needed qualitative data to provide in-depth insights that explained why they performed the way they do. The quantitative data allowed categorical comparisons between the learning experiences and simultaneously informed the qualitative phase, where participants were purposefully selected to obtain qualitative data to provide more depth and insights into the quantitative results. Based on these considerations, this design was what John Creswell (2014, p.224) described as an explanatory sequential mixed methods design (with equal emphasis on both quantitative and qualitative data; QUAN -> QUAL).

> *'The quantitative results typically inform the types of participants to be purposefully selected for the qualitative phase and the types of questions that will be asked of the participants. The overall intent of this design is to have the qualitative data help explain in more detail the initial quantitative results. A typical procedure might involve collecting survey data in the first phase, analysing the data, and then following up with qualitative interviews to help explain the survey responses'.*

The final reason that contributed to this decision was a practical one; this was a single researcher PhD study with no funding, which essentially meant that constraints needed to be taken into consideration as well. The findings from the pilot study indicated that the initial design exceeded those constraints. This design, on the other hand, not only possessed the ability to produce both desired quantitative and qualitative data, but was also more manageable as it significantly reduced the number of interviews. Creswell (ibid., pp.232-233) concurred with this notion by suggesting that 'If the investigator is a single researcher, the sequential strategies of an explanatory sequential or exploratory sequential approach are best because the investigation can be divided into two manageable tasks rather than multiple data collection and analysis procedures'. For the reasons discussed above, this approach was the most appropriate to achieve this study's objective.

These changes rendered this study's methodology to somewhat resemble that of Smith's (2013a), which sought to 'investigate drummers' identities, what drummers do and how drummer learn to do what they do' (p.2). However, while the details in Smith's book suggested that his study utilised a mixed method design as well to accomplished those

aims, it was specified that the purpose of quantitative data was to 'support the qualitative data gathered in interviews' (p.8)[52]. This study, on the other hand, as explained above, used qualitative data to further and explore and give meaning to the quantitative data. Furthermore, Smith's interview participants were separate from those that completed questionnaires, while this study selected interviewees from the pool of participants who took part in the survey.

Research Instruments

The major changes to the research instruments were the inclusion of a survey and amendments of interview questions.

Online Survey

Instead of conducting the interview and musical test with every single participant, the study first administered a survey to allow the categorisation of participants. Data collected by the survey were similar to the pilot study interview; this included information regarding participants' experience with formal and informal learning, the practices involved, their lived experience in their social and cultural world, identity practices, aspirations, and perception of their own performing abilities in conjunction to their aspirations and perceived standard of the industry. However, the survey only contained closed-ended questions, that were to be completed by the participants themselves. The purpose of the survey was twofold, namely to obtain quantitative data for quantitative analysis and to inform the interviewee selection criteria.

As the pilot study revealed the inadequacy of Google Forms to meet the needs of this study, the web-based form builder 'EmailMeForm' was employed instead as it possessed the ability to provide the researcher with the freedom to control a range of parameters. This allowed the survey to progress to specific question sets depending on the participant's responses.

[52] Though it was not clear if it was a convergent parallel (QUAL + quan) or exploratory sequential (QUAL -> quan) model.

Furthermore, as the earlier form design (eight sets of questions) was deemed unsuitable for this study's objectives, the structure of the survey was amended to better furnish the collection of quantitative data. Rather than separate 'context' and 'practice' question sets that were to be independently selected by the participant, a 'practice' question set was now attached to a 'context' category. Therefore, the participants would only be required to select a context category that best described their experiences[53].

Interviews

While the interviews consisted of standard questions, revised or additional questions were also drafted based on each interviewee's survey responses. The interviews were semi-structured, and questions were open-ended to allow room for further explorations of notions that came up during the interview and to elicit information not considered previously. As mentioned above, there were flaws in the pilot study's interview questions and the order of the questions which influenced the responses given. The researcher's carelessness to further probe intriguing notions that were revealed by the participants, and the lack of control over the direction of the interview also squandered opportunities to obtain useful data. Therefore, the interview questions, order of questions, and the administration of the interview were reviewed and adjusted accordingly.

The main issue with question order identified in the pilot study was that a specific question preceding a broader question caused responses to the latter question to be anchored to the responses to the former. Grau (2020) reported that 'according to Pew, open-ended questions that follow closed-ended questions tend to bias toward concepts or considerations already offered in the closed-ended questions' as they tend to 'contrast their answers based on what they were "primed" with from a previous question'. Therefore, the Pew research Center would most often place open-ended questions before closed-ended ones in their survey work. Though the two questions in the pilot study were not closed-ended per se, one was more specific than the other, and it was placed before the broader one. Therefore, to mitigate this question order bias, this interview questions were

[53] A copy of the survey questions and flow chart is provided in Appendix 4.

now arranged in the order of broad to specific enquiries. This included asking the participants to freely described their learning histories at the beginning of the interview.

Musical Skills Tests

There were no substantial alterations to the test items or the assessment criteria. Thus, the test designed and described in the earlier subchapter was employed.

Procedure

The procedure was further enhanced by the findings and issues that arose from the pilot study in that it informed the recruitment strategy, and consequently facilitated the refining of the sample scope and data processing approach.

Recruitment Strategy

The adjustments to the methodology subsequently meant increasing the sample size significantly in order to obtain sufficient data for quantitative analysis, and approximately 100 participants were deemed sufficient for this investigation[54].

Also, the only criterion any potential participant had to fulfil was to identify as a popular musician regardless of learning histories. This paper did not set the scope of the study only to musicians who played styles of music that fit within the definitional boundaries of popular music. Instead, it would also be informed by the identity practices of musicians. As demonstrated in the literature review, despite past efforts, popular music still eluded unanimous definition for various reasons. Therefore, setting a boundary solely based on the styles of music played was discriminatory, as some styles of music were certainly excluded depending on the definition. Also, the core aim of this research was to study the musicians, not the music itself. Thus, it was appropriate to set a scope that derived from the perspective of the musician, not the musical entity. After setting a sample target and criterion, this study then proceeded with an inclusive recruitment approach after deliberation of the variety of factors described below.

[54] Smith (2013a) collected 100 questionnaires for his study as well.

The first was the concern of this study's ability to recruit 100 volunteer popular musicians from outside the researcher's network. Robinson exhausted all possibilities to recruit participants from outside his social circle with disappointing returns. In the end, out of the eight participants, only one was not from his network (2010, p.28). Thus, it was challenging to retain optimism in recruiting a large sample that was not acquainted with the researcher. Secondly, the significant increase in sample size also raised some concerns about limiting the sample scope to a specific geological/social/cultural background. Though it was not clear the extent of Robinson's recruitment efforts geographically, his sample only comprised of popular music teachers from England and Wales (Robinson, 2010, p.28). Therefore, it did not seem realistic to assume this study would have fared any better with similar geographical/sociological/cultural specificities limits. The third concern was the likelihood of recruiting equal or similar numbers in each category. Even if recruitment attempts were to yield the desired numbers, the number of participants in each context category might not be similar, let alone equal. Then there was the question of whether to recruit equal numbers for each category purposefully, or to allow an organic response in which there was no researcher intervention in the accumulation of responses in each category. Equal numbers in each category allowed for fair comparisons. However, at the same time, one of the aims of this study was to take a snapshot of the diversity and variety of music learning experiences, so to artificially increase the number of participants in any category would distort this study's understanding of the situation's reality.

The ideal situation would be for this study to not only recruit a sample of 100 participants but also for them to be somewhat equally spread out across all four categories without any sampling intervention on the researcher's part. In addition to that, it would be preferable for the participants to have derived from beyond the researcher's network and were of common geological/social/cultural backgrounds. However, the decision-making process concerning sampling could not be completed at this stage, as it was not possible to project the responses from the recruitment efforts since participation in this study was entirely voluntary.

After much deliberation, it became evident that the appropriate measure was to include as many potential participants as possible, and let the data inform the scope and make-up

of the sample to be studied. Recruitment efforts would focus on musicians not personally acquainted with the researcher, but it would not discriminate against popular musicians from the researcher's network, for they too belong in the population that this study intended to examine. In some ways, this was similar to Robinson's approach, for he too 'was slightly concerned that [he] would not be able to find enough teachers to take part [in his study]' (2010, p.66). It also meant that there would be no intervention on the researcher's part to ensure that each category accumulated similar numbers of participants, but rather allow the sample to organically present the landscape of current popular music learning backgrounds.

Additionally, this also meant no restrictions on geographical/social/cultural specificities, and recruitment efforts were extended to all countries/avenues accessible, to collect as much data as possible within a stipulated time frame through remote/online and physical means. The reason for this was that even when recruiting participants from a particular geographic location (e.g., UK), their learning experiences might have mainly taken place elsewhere (e.g., Iran). Therefore, to limit the recruitment efforts to one specific locality for the sake of narrowing the scope of the study would be pointless, as this study was not interested in a participant's geographical location at the point of recruitment, but rather in where his/her/their learning experience primarily took place.

While online or remote recruitment efforts transcended physical limitations to reach potential participants universally, physical recruitment efforts mainly focused on the UK and Malaysia. The reason for this was that this research was in a unique position to gain access to musicians in both the UK and Malaysia. Additionally, this focus on the UK and Malaysia could allow the study to determine the role that cultural differences played in the skill acquisition process, and the establishment of values and attitudes.

The cultural differences within a country were arguably less significant compared to cultures between vastly different countries that both have popular musicians, popular music culture and established PME institutions. Therefore, a comparison between the cultures of two countries would lend more validity to the findings. If there were minimal

disparities between the UK and Malaysian participants[55], then it would conclude that cultural differences were not a significant factor, and the recruited sample could be treated without cultural distinctions. On the other hand, if the results were very different, then it must be attributed to cultural differences.

However, introducing the element of cultural differences into the equation would increase the risk of complicating this project as findings required further analysis through cultural lenses. Also, this would complicate the initial issue of sample size and make-up even further, as there would be concerns of recruiting similar numbers in each category for both countries and/or recruiting adequate numbers to allow a valid comparison between countries.

Regardless of the benefits or drawbacks, it was not feasible to determine if a comparison between cultures could or should take place as a prediction of the responses from the recruitment efforts was not possible. Whether to limit the boundaries to just the UK or Malaysia and omit other responses, or to analyse all collected data and conduct additional comparisons between popular musicians in the UK and Malaysia, or to treat the entire sample as a whole, this decision could only be made in response to the data already collected. While that may be so, the earlier analysis of existing literature, that learning culture did not differ significantly across Hong Kong, The UK and US, provided some confidence that a geographically diverse sample in this study would return similar results as well.

Recruitment Efforts

To that end, five universities that offered popular music performance-related programmes across the UK and Malaysia were contacted. While two did not respond, arrangements were made with the other three universities for the researcher to enter lecture halls to formally invite students to participate in this study by completing the online survey on the spot. In addition to formal invitations to university students, there were also efforts to recruit participants on Facebook, primarily through the researcher's network of musicians

[55] The country categorisation was based on where their learning mainly took place, not the country in which they were recruited from.

and the London Musicians Network (LMN) group. Lastly, email invitations were also sent out to the International Association for the Study of Popular Music (IASPM) Mailing List reaching a more global audience.

There were precautions taken to ensure that there was no overlap in the timing of the invitations and to leave a 1-2-week gap between the last recorded response and the next recruitment effort. Such measures were possible because the survey recorded all responses, whether completed or incomplete[56]. Also, an email notification was sent to the survey owner (the researcher) every time a survey response was completed. Responses from physical recruitment efforts only poured in within the first hour, while online efforts (Facebook and IASPM Mailing List) only yielded results within the first few days. Therefore, as these measures were in place, responses were traceable to each individual effort (physical or online). The survey ended once this study was satisfied with the sample size and conducted the necessary analyses to inform the scope of the study and methodology.

PARTICIPATION INFORMATION SHEET (PIS) AND CONSENT FORM

At the beginning of the survey, it was explained to the participants in the form of the PIS, pertinent information such as the purpose of the study, the reason for contact, measures of data collection and treatment, the obligation of participation, benefits, risk and disadvantages of participation, and contact information if any problem arose.

Once arriving at the end of the page, they were required to click 'Next' to access the Consent Form on the next page. In the Consent Form, participants had to select 'Yes' to all statements, except those with regard to receiving a copy of the Consent Form, results of the study, and to participate in a follow-up interview. At the end of the page, consent had to be given by providing their names and contact email. For those that agreed to participate in the interview (if selected), a text box would appear on the page, requiring them to provide a contact number[57].

[56] A response is recorded the moment a potential participant clicks on the link.
[57] A copy of the PIS and Consent Form is provided in Appendix 5.

ONLINE RECRUITMENT

Online invitation messages sent out to potential participants included a link to access the survey. As stipulated above, the PIS and Consent Form were included at the very beginning of the survey, requiring consent before proceeding with the online survey. It was stated clearly in the PIS that they received the invitation because the study intended 'to study the learning experiences of musicians who [had] a performing career in the popular music scene or [was] working towards one'. Thus, it was understood that if consented and continued, they identified as such. Also, the invitation message ended with a notice of the approximate time required to complete the survey (15-20 minutes), and a request to forward the message to anyone they perceived eligible to participate as well.

PHYSICAL RECRUITMENT

Upon entering the lecture halls, the researcher would first introduce the study very briefly, then verbally explain all the information in the PIS, including the criterion for participation, ensuring they understood that participation was completely voluntary, that the survey would take approximately 15-20 minutes to complete, and finally, invite them to participate. Students were then given a chance to ask questions or request further explanation. Upon accomplishing that procedure, the researcher proceeded to hand out business cards that contained contact information and a QR code. The scanning of the QR code with any mobile device would produce a link that directed to the online survey. Similarly, they would be required to provide consent at the beginning of the survey in order to proceed. At the end of the session, the researcher would appeal to the students to pass the business cards to whoever they perceived eligible to participate.

Recruitment Responses

The majority of participants recruited were the result of physical efforts; of the three universities, one was based in Kuala Lumpur (Malaysia) while the other two were London-based (UK). There were good responses from students at the Malaysian university and one UK university, which generated a sizable number of participants, but the survey did not

record any responses that were near completion from the second UK university[58]. The reason for the lack of responses from students at this university was not known, nor possible for this study to determine, for the procedures carried at all three universities were consistent.

Online invitations were sent out individually on Facebook Messenger to all known popular musicians on the researcher's account, including those not personally acquainted. An open invitation was also posted in the LMN Facebook group, which at the time of writing, had 27,000 members. As it turned out, only individuals who were personally acquainted with the researcher responded to the invitations and subsequently participated in the study; only one response was traced back to the link posted in the LMN group. A brief scan of the responses collected showed that participants recruited through the Facebook platform were primarily those acquainted with the researcher, and (to the researcher's knowledge) all had some form of formal music learning background. Consequently, a quick investigation of all the individual invitations sent on Facebook messenger[59] revealed that majority of individuals that ignored the invitations were those not personally acquainted with the researcher[60], and presumed not to have had any form of formal music training. This observation drew attention to comments made by Holt (2007, pp.14-15) that popular musicians generally distanced themselves from institutions and took pride in that resistance. However, responses from the IASPM Mailing List were equally subpar (11 responses in total), which suggested that an informal musical background was not the deciding factor as members of the IASPM were generally either scholars of popular music, or practitioners familiar with formal popular music education. Therefore, in the words of Sir Arthur Conan Doyle, 'when you have eliminated the impossible, whatever remains, however improbable, must be the truth' (The Hounds of Baskerville, 2012). By the process of elimination, it appeared that Robinson's (2010, p.27) observation about recruitment through one's network was the most effective strategy, had legitimacy.

[58] This is known to be true as the second UK university was the last recruitment effort to be made, and there have not been any recorded responses on the online survey since then.
[59] An investigation of this type for the London Musicians Network group was not possible as invitations were not individually sent, thus the lack of responses were not traceable.
[60] These were musicians on the researcher's Facebook friends list, but they but not personally acquainted.

MISSING DATA

These efforts resulted in 207 recorded survey responses, but 74 were omitted from the study as their responses were largely incomplete. The omission was in line with Dettori *et al.*'s (2018, p.894) assertion that complete cases analysis (listwise deletion) should be conducted in scenarios where the proportions of missing data were substantial (≥40%)[61], but a discussion of the analysis and effect of the missing data must be made. In this case, the most significant effect was that this study lost 35.7% of its sample. However, the remaining 133 participants had exceeded the expected sample size (100), and the 74 cases were not missing data at random, but instead were abandoned midway. Thus, there was no reason to postulate the omission of 74 survey responses resulted in any bias in analyses based on complete cases[62].

[61] Dawd *et al.* (2019) argued that under the right conditions, the multiple imputation method was suitable at any proportion of missing data.
[62] Further treatment of missing data explained in 'Analysis'.

INFORMED SAMPLE SCOPE AND DATA PROCESSING

The data from the 133 cases, analysed with SPSS, provided the necessary evidence which informed further developments of the methodology[63].

Table 13: Breakdown of participants according to country and context category

Country	Formal Only	Informal Only	Formal to Informal	Informal to Formal	Total (Country)
Australia	0	1	3	0	4
Austria	0	0	1	0	1
Bosnia Hercegovina	0	1	0	0	1
Canada	0	1	1	0	2
China	2	1	1	0	4
Estonia	0	0	1	0	1
France	0	0	1	0	1
Germany	0	0	1	0	1
Greece	0	0	0	1	1
Hungary	0	0	1	0	1
India	0	1	0	0	1
Indonesia	0	0	1	0	1
Italy	0	0	1	0	1
Korea (South)	0	1	1	0	2
Malaysia	9	11	39	24	83
Netherlands	0	0	1	0	1
Poland	0	1	1	0	2
Singapore	0	0	0	1	1
Sweden	0	0	0	1	1
United Kingdom	0	6	5	8	19
United States of America	0	0	1	0	1
Total (Category)	11	24	60	35	130

**A total of 3 participants did not provide a response for the 'Country' question, which took place late in the survey.*
**Total (Category) = Total number of participants who indicated that this category described their learning experience.*
**Total (Country) = Total number of participants who indicated that this country was where their learning mainly took place.*

The resulting sample reported that their main music learning experiences took place in a wide variety of countries. As can be seen in Table 13 above, the only countries that had

[63] Preparation of data was completed first in Microsoft Excel.

more than two responses in any one context category were Australia, China, Malaysia and the UK. The country with the most responses in all categories was Malaysia, from which a profile was created for each context category, based on the most selected answers to questions relating solely to learning contexts and practices, to function as a reference for comparison. Profiles for each country were also created and examined against the Malaysian profile to determine its similarity index, and it indicated that the similarity indices among Australia, China, Malaysia and the UK were between 73-87%[64]. Additionally, these percentages (73-87%) were consistent with the percentages resulted from the comparison of each response from Malaysia to the Malaysian profile; all fell within the 70th and 80th percentile [65]. Therefore, it demonstrated that regardless of geographical disparities (social and/or cultural factors) among the sample, the learning contexts and practices they encountered had many overlapping characteristics (correlating with findings from the earlier analysis of studies from Australia, Hong Kong, The UK and US). The findings did suggest, however, that these factors had some influence on the routes taken, as participants within the 'formal only' category could only be found in Eastern countries (Malaysia and China), but yet it was not a significant variable as similar ratios of participants from Malaysia (75.9%) and the UK (68.4%) indicated that they had a combination of formal and informal learning experiences. Therefore, this study proceeded to examine the responses concerning participants' experiences in the various learning contexts and practices used without regard to geographical, social, and/or cultural disparities.

Translating this conclusion into the terms of the scope, the make-up of the sample and data processing, it meant that at least strictly in regard to the practices engaged with, and their experiences of the various learning contexts, there was no need for comparisons or omissions of data due to geographical differences. This conclusion was in line with Green's observation of musicians in Britain and the US, that based on existing research, there were no grounds to presuppose that geographical differences would have much influence on the general learning practices of popular musicians (2002, p.13). While this study treated the sample indiscriminately, observation of certain social and cultural factors in matters

[64] The similarity index from the remaining countries were excluded in this analysis as there was only one response and thus a comparison does not yield meaningful results for this purpose.
[65] Refer to Appendix 6 for calculations.

relating to routes of learning, values and attitudes remained as the above data suggested it to be variables of note.

Interviews and Musical Skills Tests

The conclusion above subsequently informed the selection criteria of interviewees, which omitted the consideration of participants' geographical disparities. From there, the study proceeded to complete the interviews and musical skills tests.

INTERVIEWEE SELECTION

The criterion for selection was the similarity index of each participant in their respective categories, by measuring each survey response against the 'global' profile[66] created for each category[67]. The rationale for selection based on the similarity index was that this was a quantifiable measure of representativeness of the interviewees in each category. Furthermore, only participants who indicated a willingness to participate in the interviews in the Consent Form were considered for selection.

Selected participants with the highest similarity index in each category were then contacted for the interview invitation. In the invitation, they were informed of the reasons for their selection and reiterated what further participation in the interview would entail (inclusive of the musical skills tests comprising a prepared performance) and the approximate time required (1.5 hours). As participation was voluntary, some of them declined further participation, and some did not respond. In such cases, contacts were subsequently made to the participant with the next highest similarity index until two participants from each category accepted the invitations. Once selected participants agreed to participate, a time and location convenient for the participant was arranged. On that day, participants would be given a choice to either begin with the interview or the musical skills tests.

The interviews were audio-recorded on two separate devices, while the musical skills tests were video-recorded on one device and audio-recorded on another device.

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[66] A profile created based on responses of all participants in the category, regardless of the geographical variable.

[67] Refer to Appendix 6.

INTERVIEWS

The interviews began by asking interviewees to 'tell their story' in their own words, without any prompting or suggestions to allow an unadulterated version of their learning histories. From there, the researcher enquired further if any interesting subjects emerged in their stories. If their organic accounts answered any pre-written questions, the interview proceeded to the next question in line. The interviews resembled a conversation more than an interview and did at times went in unexpected directions (misunderstanding of question or had a different understanding of the subject), but the researcher did not halt the conversation for such details were valuable. In fact, this was the rationale for employing semi-structured interviews, as the study wanted to allow room for unexpected topics or themes to emerge. After the interview recordings were transcribed, an initial summary of each interviewee was written, then both transcription and summary of each interviewee were imported into the qualitative data analysis software Nvivo.

The study invited all interviewees to review their summary to determine the accuracy of the researcher's interpretation of their story. All but one accepted the invitation to review, and any discrepancies noted were corrected.

MUSICAL SKILLS TESTS

The procedure of the musical skills tests in the pilot study was employed. Interviewees had the freedom to decide on the order of the test items before the commencement of the music tests. Excluding the prepared performances, all test items involved one practice exercise before the actual test. Similarly, the researcher carried out the assessments, and it was only after the collection of all test responses from every participant, that each test item was graded in one session before moving on to the next item to ensure the consistency of assessment standards.

This study acquired a collection of prepared performances that were of drastically different styles of music, ranging from singer-songwriter to jazz-funk fusion and progressive rock. Subsequently, this meant that some songs arguably demanded more technical skills than others, which at first glance, appeared to present a difficulty in setting consistent assessment standards. However, as described above, the performances submitted should

be observed as individualistic representations of their musical capabilities, regardless of style/sound/techniques. Therefore, assessments were conducted in a similar manner, individually and objectively, without comparing one performance with another.

Analysis

Not deviating from the approach that conceptualised the methodology, the overall analysis strategy employed was rooted in pragmatism as well. The findings that this study intended to seek informed the methods of analysis.

Survey Data Analysis

This study used the statistical analysis software SPSS to analyse the survey data, and the strategy for analysis was governed by the purpose of answering the research questions. The objective was to determine the landscape of current popular learning culture, the variety of learning routes within today's landscape, and the disparities between past and present learning experiences. Thus, the two types of statistical analyses used were frequency and crosstabulation, for the study only required the frequency distribution of variables studied, or the relationship between multiple variables. There was no calculation of standard deviation, mean and median, as the survey only obtained nominal, dichotomous and ordinal data.

MISSING DATA

Unfortunately, some survey data among the 133 participants were missing due to negligibly incomplete survey submissions and survey design error that allowed participants to proceed to the following section without responding to the previous enquiry. The common solution to item nonresponse was to conduct the multiple imputation process, but this study decided against this, and instead adopted the pairwise deletion approach for two (2) reasons:

1. Missing data was not greater or equal to 5% in any variable.
2. Only frequency and crosstabulation analyses were employed.

While Madley-Dowd *et al*. (2019, p.64) asserted that 'bias [was] likely in analyses with more than 10% missingness', Dettori *et al.* (2018, p.894) were more conservative by proclaiming that multiple imputation was not appropriate when 'the proportion of missing data [was] small (≤5% as a general rule). [For] the potential impact of the missing data [was] likely small'. As the percentage of missing data in this study was below 4%, there was no reason to simulate data. An additional rationale behind employing pairwise deletion in preference to listwise deletion at this stage was simply that this study could afford to do so. Statistics Solutions (2020) wrote that pairwise deletion had the potential to become problematic when calculating the standard deviation with software or complex analytical methods, such as structural equation modelling. However, this study only collected categorical data. Thus, the calculation of the standard deviation was never possible in the first place. Finally, this study did not employ complex analytical methods, hence resorting to listwise deletion was unwarranted.

Interview Data Analysis

The purpose of the interviews was to obtain details from representatives of each learning context categories of their experiences to allow in-depth understandings of the general findings from the survey data. The use of the NVivo software expedited the analysis of the interview data as it facilitated the organisation of data and identification of themes across data sets, which provided more depth and insight into the quantitative results, and also contributed to the analysis of the musical test responses.

Musical Skills Tests Data Analysis

The data obtained from the musical skills tests were explicitly to examine the ways in which learning experiences (survey and interview data) were reflected in proficiency levels of sight-reading, play by ear, improvisation and prepared performances. The responses from all interviewees for each musical test item were graded with the criteria listed in the assessment rubric and awarded between zero and five points. Then, the average scores of each criterion from both items in the same test were calculated to represent each interviewee's proficiency levels in each criterion for that particular test.

The objective of this study was to determine the relationship between proficiencies and learning experiences, not which learning route would result in proficiencies that satisfied predetermined levels. Indeed, a participant's test response was an objective assessment of proficiencies in particular skills, but as stipulated, the test standard was rigid and only existed to serve as a point of reference; to determine where each representative stood in conjunction to the predetermined threshold. Therefore, their test scores were not taken at face value as a conclusive indication of their musical proficiencies. Instead, their learning histories and musical aspirations were acknowledged in the analysis and discussion of their test performances. Hence, while test scores were treated as a conclusive indication of their musical proficiencies, they were subsequently analysed in conjunction with the interviewees' entire musical histories and musical aspirations.

The proficiency levels of each representative were first examined with their peers' in the same category to determine if the levels were consistent. Thus, providing credence to establish the relationship between specific proficiencies and learning routes. Additionally, common factors experienced by representatives across categories throughout their learning histories, and the comparison of a single criterion between participants across tests were also explored. The purpose of these considerations was to determine if a specific proficiency was directly the result of a definite learning experience; to scrutinise the strength of the correlation between proficiencies and specific learning experiences.

Participants

Survey Participants

The paragraphs below primarily report on the distribution of participants according to age groups and learning context categories. The study already discussed earlier, the countries in which participants' main learning experiences took place, and the following chapters will discuss other details, such as main instruments and prior Western classical music training (PWCMT), for these details yielded interesting and pertinent discussions that contributed to this study's understanding of participants' learning histories.

Age

Table 14: Distribution of participants according to age

Age Range	N	%
18-24	77	57.89%
25-34	43	32.33%
35-44	6	4.51%
45-54	4	3.01%
55-64	1	0.75%
65 or above	2	1.50%
Total	133	100.00%

As can be seen in Table 14, the majority of participants were aged 34 and below, while participants relatively advanced in age, made up less than 10% of the sample. The resulting sample was not arbitrary. Given that a majority of the responses to the recruitment efforts derived from university students, the distribution of participants in terms of age was consistent with the expected outcome. Not forgetting that one of the objectives of this study was to explore how current popular musicians learn and how they detract from their predecessors, the age range of the sample facilitated that enquiry. However, this study did not omit data from participants more advance in age as this research sought to study current popular musicians, regardless of age.

Learning Context Categories

Table 15: Distribution of participants according to learning context categories

Versions of distribution	Reported[a]		Amended categories[b]		Accurate[c]	
Learning Context Categories	n	%	n	%	n	%
F (Formal only)	11	8.3%	11	8.3%	11	8.3%
I (Informal only)	24	18.0%	4**	3.0%	4	3.0%
I* (Informal with HPME)	n/a	n/a	19	14.4%	n/a	n/a
F-I (Formal to informal)	62	46.6%	62	47.0%	62	47.0%
I-F (Informal to formal)	36	27.1%	36	27.3%	55	41.7%
Total	133	100.0%	132	100.0%	132	100.0%

[a] Reported distribution of participants according to the four identified learning context categories.
[b] Amended distribution of participants according to the amended learning context categories.
[c] Accurate distribution of participants according to the four identified learning context categories.
[*] Participants in 'I' who reported pursuing or completed a degree in popular music.
[**] One participant in 'I' did not complete the survey; university-related enquiries took place late in the questionnaire, proceeding enquiries regarding practices (refer to the Survey Flow Chart in Appendix 4). Thus, data collected from this participant was not omitted from the study (bar analysis based on the Amended categories).

The data collected from the questionnaire (Table 15, 'Reported' column) indicated that 11 participants reported only having formal popular music learning (FPML) experiences (F), 24 with only informal learning experiences (I), and 98 with a combination of both (F-I and I-F). However, further examination revealed that the 'I' category figure was inaccurate as 19 of the 24 participants reported pursuing or completed a degree in popular music (Figure 4)[68]. While it would be more accurate to transfer the figures (n=19) to the 'I-F' category, bringing it to 41.7% ('Accurate' column), this study did not proceed with this solution for two reasons.

1. The absence of their formal learning data rendered this solution invalid.
    a. Complete data were only collected from 36 participants in 'I-F' category. Thus, calculations based on n=55 would result in miscalculations.

[68] It was not possible to investigate if participants consciously or unconsciously excluded their tertiary music training from their learning experience accounts, but as the data stands, the informal responses can be further sub-categorised into those that had a complete informal learning background, and those that learnt informally till the point they enrolled into a popular music programme.

2. The consequences of this discrepancy were addressed.
    a. The representation accuracy of the 'I' and 'I-F' categories (Table 15).
    b. The aggregated total of participants with formal learning experiences (Table 17).

The only unresolved concern that arose from this issue was the validity of findings derived from examinations involving the 'I' category. 'I' was selected by participants on the onset, indicating that all responses preceding university-related enquiries were only regarding their 'pre-university' informal music learning experiences. Even though there was no empirical evidence to conclude as such, the survey clearly stated before they began answering questions about context and practices, that the questions were strictly in regard to 'informal context only', and 'outside the confines of formal structured lessons'. University-related questions, on the other hand, only took place after context and practices enquiries had ended. Hence, this study proceeded as such:

1. The 'I' category represented all 24 participants during examinations that only required objective recollection of facts related to contexts and practices.
2. The 19 participants in 'I' with HPME engagements were delineated under the label 'I*' (Table 15, 'Amended categories' column) to examine enquiries related to lived experiences, values and attitudes.

The rationale for this approach was that investigations regarding values and attitudes required subjective evaluations during participation in the study. Thus, responses were based on the values and attitudes that they had at that point of the survey. The need to separate 'I*' from 'I' in this regard was because values and attitudes were shaped and cultivated by experiences. As the 'I*' category was made up of participants currently engaged in HPME[69], their entire learning experiences did not align completely with those in 'I', and their formal learning experiences would have influenced their responses to those enquiries, thus the need for delineation. Similarly, this delineation was required for lived experiences enquiries to enhance the determination of the role that socio-cultural background played in the routes taken by participants.

[69] Of the 19 participants, 18 were current students in HPME.

In conclusion, this study acknowledged that the figures in the 'Accurate' column (Table 15) reflected a more accurate distribution of participants. However, given the circumstance, the data under the 'Reported' and 'Amended categories' columns remained the official figures used for calculation and analysis.

The study also acknowledged that gendered division of labour and ideologies in popular music (Clawson, 1999, p.193) exist, but did not acquire gender-related data as the constraints of the study did not allow for the exploration of gender roles and its impact on the subject matter. However, while gender-related variables were excluded from the equation, this omission should not be construed as a dismissal of its significance on the subject area, but rather be viewed as a victim of realistically governed decisions.

Interviewees

Listed in Table 16 are the eight participants who participated in the interviews and musical skills tests. All interviewees were given pseudonyms to protect their identities. The pseudonyms, while reflective of their presumed gender identity[70], did not function as an indication of other biodata such as ethnic background or religion. The process of choosing a pseudonym was only to retain the first letter of their actual names, and either select a name based on a television show character or used Google Search to explore names beginning with said letter.

Table 16: Basic details of interviewees

Context Categories	Name	Age	Presumed Gender	Main Instrument	Current Situation
F	Yasmin	18-24	F	Piano and/or keyboard	HPME student
	Haley	18-24	F	Drums	Full-time musician
I	Keith	18-24	M	Voice	HPME student
	Zayne	35-44	M	Bass Guitar	Full-time musician
F-I	Ellie	18-24	F	Piano and/or keyboard	HPME student
	Sarah	25-34	F	Piano and/or keyboard	Full-time musician
I-F	Eddard	18-24	M	Drums	HPME student
	Mateo	18-24	M	Drums	Full-time musician

[70] Solely based on observed physical appearance during the interview session, for this study did not (set out to) obtain any data relating to gender.

The Researcher's Role

With mixed-method design being partially an interpretive research, the researcher's involvement in the research process was similar to that of an instrument of interpretation, as the accumulation, structure, perception, analysis, interpretation and dissemination of information (primary and secondary data) were subjected to the thought process of the researcher. Therefore, it was crucial that researchers 'explicitly identify reflexively their biases, values, and personal background, such as gender, history, culture, and socioeconomic status (SES) that shape their interpretations formed during a study' (Creswell, 2014, p.187).

The introduction of a range of strategic, ethical and personal issues into the research process rendered subjectivity unavoidable. However, as argued by Vasil (2015, p.54), explicit acknowledgement of the fact and disclosure of relevant information about the researcher could improve the credibility of the research.

> *'Researchers can avoid unethical practices by identifying personal biases that may distort or misconstrue understanding and by developing more awareness of how research decisions are informed. In acknowledging subjectivities in studies, researchers can ensure that readers are aware of their stance'.*

For these reasons, the following paragraphs illuminated relevant details of the researcher's experiences, potential biases and the measures taken to mitigate those biases.

The researcher is currently a drummer who have played with artists, professional and amateur musicians, in stadiums, arenas, festivals, pubs, recording studios and basements in Malaysia and the UK. Additionally, the researcher was also employed as a lecturer in music prior to the commencement of the PhD. However, the journey that led to such a career was a long one. The very first experience of learning anything closely related to popular music took place in the form of a formal instrumental instruction, and drum notation was introduced in the first lesson, and simple basic drumbeats were learnt by interpreting notes on a page. When engaging with HPME, there was a sense of complete unpreparedness and feeling unequipped to meet the expectations of the institution. When asked to learn a specific song, the immediate response would be to ask if there was a score.

It was only realised years later that the notation-reliant training undertaken before arriving at the institution was not one that was shared by peers at the institution, who could effortlessly learn to play songs just by listening to the recording, without any use of notation. It took years of intense hard work and dedication to improve and eventually increase proficiency in the skills associated with popular music learning and performing culture, and also accumulate experiences that aligned more closely to those in the field. However, subtle differences were still observable when comparing with the performances of others; there was a lack of 'feel' in the performance, and what could be described as 'in the box' sort of rigid playing. Back then, the perception was that this contrary in performances was due to disparity in practise hours, that others spent more time practising and working on their craft, which resulted in better performances. Nothing more was thought of it at that point, except that it could be 'fixed' with more practise hours.

However, this position was challenged when obtaining primary data for a MMus degree research project which set out to discover the importance of notational and ear skills in popular music today. During an interview, one participant commented that the primacy of either one skill was not the vital issue, but rather which skill was learnt first. The participant noted that there was a feeling of enviousness towards musicians who did not learn notation first, or even at all, and went on to explain that coming from a formal music learning background before diving into the world of popular music, differences between the participant's playing and someone else's playing could be observed (similar to the researcher's observation). This participant's comments triggered a reflection of the personal musical journey taken thus far, and eventually, the realisation of the impacts of those earlier learning strategies (learning from and reliance on notation) on the subsequent learning, observation, internalisation and performance of music, which contributed to a perceived defect in the musical abilities acquired. The knowledge that this was not an isolated case (or just a case of insufficient practise hours) induced a quest to informally interview peers and observe students during the time of employment as a music lecturer. Through these conversations and observations, a relational pattern between prior learning experiences and music skills which appeared to confirm the researcher's theory on the issue emerged.

Turning to literature to shed some light on the issue, and personally find ways to 'remedy' the self-assessed imperfections, which subsequently could benefit those who had similar learning histories, it was shocking to find that there was no such literature at all. There were works of literature that documented how popular musicians learnt, and also the musical results of certain training methods, but none that specifically established the relationship between how popular musicians learnt and how they performed. However, after further research on PME, it became evident that there were reasons why there was no relevant research thus far. For a very long time, academia classified popular music as an unworthy field for academic study, and research interest only began to gain traction in the last few decades. Hence, popular music as a field of study was relatively young, and there were still many areas that have remained unexplored.

It was from this position that led to the multifaceted motivations for this research; to discover if there was any empirical truth to colloquial theory, and also to increase literature in popular music by focusing on unexplored areas. It was reasonable to suspect that these experiences and motivations possessed influence that could significantly affect the objectivity of the research, such as actively looking for favourable evidence or leaning towards specific themes. Therefore, in the attempt to counter this probability, the study decided to let the evidence inform the theory; instead of testing a hypothesis, the intent was to explore and discover.

Despite attempts to recruit participants from outside the researcher's network, the reality was that only individuals who were within that social network were willing to take part in the study, and only institutions that the researcher had associations (or past associations) with, whether in the capacity as a student or employee, responded and subsequently awarded access to their student body. Associations with the institutions appeared to border onto the parameters of 'backyard' research, but this was not the case. The associations only facilitated the access to the intended demography; the music students of the institutions who had no prior contact with the researcher.

The only connection between the researcher and participants were the institutions, but the participants were not required to disclose the universities they were attached to, only if

they attended university for a music degree[71]. Thus, there was no way for the researcher to identify this information as the universities became 'anonymous'. This removed any influence it may have on the data (participants' responses) and any potential for researcher bias on the interpretations of the findings. In other words, the researcher's and participants' association with the institutions did not compromise the accuracy of the findings.

In this scenario, the researcher was both 'insider' and 'outsider' simultaneously; an agent in the field of popular music but removed from the participants. Thus, this put the researcher in a somewhat favourable position for having insider knowledge of the field, but no prior knowledge of or interactions with the participants.

While it was preferable not to recruit from personal networks, as there was a risk that prior association with the participant 'may jeopardise the roles of the researchers and the participants' (Creswell, 2014, p.187), they belong to the very demography that this research intended to study. Therefore, the needs of the study were prioritised. Of course, measures were put in place to remove or to alleviate this precarious situation, such as, not collecting any survey data that made them identifiable and ensuring that their identities remained confidential if selected for interviews[72]. Also, this study was reviewed by the University of Westminster's University Research Ethics Committee, in line with the University's Code of Practice Governing the Ethical Conduct of Research (ETH1819-1381).

However, this prior connection may have benefitted the study in the sense that interviewees were more forthcoming and willing to share because, despite the disclosure of intentions on the researcher's part, the interviews resembled conversations between friends rather than a formal interview.

[71] This included participants that were not recruited from, but had past associations with, the three institutions mentioned above.
[72] Unless explicit written consent is given to identify them in the final report.

Conclusion

This study's core objective required a methodology that was governed by an intepretivist paradigm and inductive approach. Given the lack of similar studies, methodologies from various disciplines were referenced and used as a starting point in the development of the methodology employed in this study. The achievement of the final methodology was only possible after a rigorous process of research instrument design (rooted in pragmatism), and a pilot study.

The findings from the pilot study brought to light issues of the initial methodology's effectiveness in accomplishing this study's objective, and this informed the alterations that were required. This included adjusting the study to an explanatory sequential mixed methods design, that emphasised the quantitative data; QUAN -> QUAL, and the inclusion of a survey. From there, issues of sample scope and data collection, processing, treatment and analysis strategies were appropriately refined.

In a methodology such as this (interpretive research), the researcher had to play a significant role in the research process, and subjectivity was unavoidable. However, measures taken to mitigate the researcher's influence on the results, and potential biases, were addressed.

FINDINGS AND DISCUSSION

The presentation and discussion of findings will be structured into four subchapters, each answering a specific research question that this study set out to explore.

1. How do current aspiring popular musicians learn their craft, and to what extent do their experiences differ from their predecessors'?

2. To what extent can diversity in musical practices be observed in the current popular musician landscape?

3. To what extent do lived experiences influence routes of learning, aspirations, values and attitudes?

4. To what extent do popular musicians from varying learning backgrounds perform differently in various musical skills?

Though the survey and interview data were analysed and interpreted independently from each other, the findings from both sets of data are presented together in each enquiry (survey data followed by interview data) in subchapters 1, 2 and 3. Findings in subchapter 4 will comprise the examination of the musical skills tests results with findings from the previous subchapters. The findings presented in this chapter have been processed and analysed, and samples of raw data are provided in Appendix 7.

RQ1: How do current popular musicians learn their craft, and to what extent do their experiences differ from their predecessors'?

This subchapter reports and discusses findings concerning aspects of current popular music learning, and its divergence from preceding accounts as depicted in literature. Findings are organised into five subsections:

Learning Contexts

Reports on the current landscape and its disparity with past accounts by examining, the routes of learning taken, the occurrence of formal and informal learning among the sample, and the awareness of the variety of music learning methods. In addition to that, the interplay between prior Western classical music training, primary instruments and popular music learning routes were examined.

Higher Popular Music Education (HPME)

Focuses on the sample's engagement with HPME programmes as characterised by the sample being studied.

Instrumental Lessons

Centres on matters relating to formal instrumental lessons, from the balance of autonomy between student and teacher to the characterisation of activities that took place within the confines of the lesson, including improvisation and the emphasis to learn from notation or ear.

Self-Learning

Concentrates on the characteristics of informal music-learning and -making, and the issues surrounding self-learning, including those interconnected with FPML, as formal routes of music learning are not defined by just events that took place within lessons, but also outside of them, during learners' practise sessions.

Musical Practices

Details the various tools and practices engaged with, and related matters from solitary and peer-learning activities, to the usage pattern and reliance on notation- and ear-based practices.

Learning Contexts

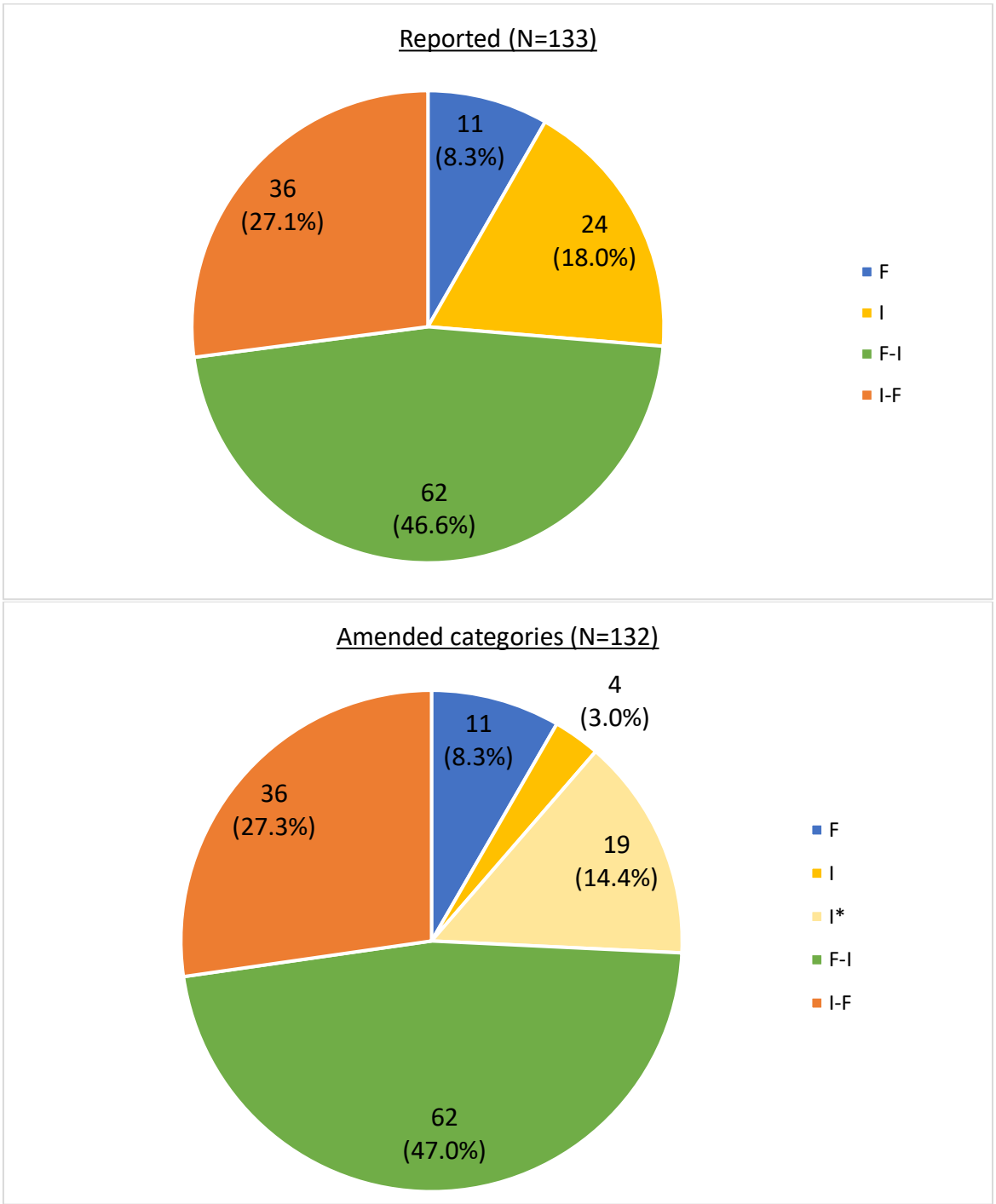


Figure 2: Breakdown of learning experiences according to participants' self-reports and after further analysis[73]

[73] Refer to 'Reported' and 'Amended categories' in Table 15.

Learning routes

Examination of the data in Figure 2 presented a striking discovery about the learning experiences of popular musicians today. There existed a number of them (n=11) whose entire popular music learning journey only took place within formal environments, and while 18% of the sample reported no experience with FPML, further analysis revealed the percentage to be much lower at 3%[74]. That meant that the current number of those who learnt to play popular music only in formal environments exceeded those who took the traditional institution-independent journey. However, the majority of participants had a combination of both formal and informal learning experiences; 62 only experienced informal learning after formal training, while 55 (19+36) learnt informally first before experiencing formal training.

Table 17: Aggregated formal and informal experience figures

Context categories	**Formal**				**Informal**	
	Reported (N=132)		Accurate (N=132)		Reported[a] (N=133)	
	n	%	n	%	n	%
F	11	8.3%	11	8.3%	0	0.0%
I	0	0.0%	0	0.0%	24	18.0%
I*	n/a	n/a	19	14.4%	n/a	n/a
F-I	62	47.0%	62	47.0%	62	46.6%
I-F	36	27.3%	36	27.3%	36	27.1%
Total	109	82.6%	128	97.0%	122	91.7%

[a] *An accurate distribution will not alter the total figure, rendering a dedicated column unnecessary, as n=19 were accurately reflected in the 'I' category.*

Engagements with formal and informal learning

While Figure 2 distributed participants based on the entirety of their learning experiences, Table 17 collated the total number (both reported and accurate versions) of participants who experienced formal and informal learning respectively. As can be seen under 'Formal-Accurate', 97% of the participants have had experiences of learning popular music in a formal environment, while 91.7% possessed informal experiences (Informal-Reported). The high number of reported informal learning (91.7%) was consistent with literature's

[74] Discussed in Table 15.

assertion of its position in popular music learning culture. However, the vast numbers of formal learning instances (97.0%) not only contradicted reported experiences of popular musicians just a few decades ago, but it indicated that the occurrences of formal learning among current popular musicians were exceeding that of the informal. In fact, further examination of the 3% in Figure 2 revealed that the four participants in the 'I' category were all from older age groups (35 and above). Though the make-up of the sample undermined the validity of this finding[75], it could not be dismissed and pointed towards a distinction between past and present accounts of popular music learning.

Comparing these findings with Smith's (2013a, p.28) study that examined teenagers (13-19 years old) and adult drummers (above 30 years old) further solidified this assertion. Applying this study's categorisation to Smith's interviewees, the teenage drummers could be divided into 33.3% (F), 16.7% (I), and 50% (F-I and I-F), and the adult drummers into 10.7% (F), 35.7% (I), and 53.6% (F-I and I-F). Smith's findings demonstrated greater engagements with formal training by younger drummers, whether solely (33.3% vs 10.7%) or overall (83.3% vs 64.3%).

Therefore, the findings in Figures 2 and Table 17 supported the argument made earlier that the learning cultures of popular musicians were evolving; from one that primarily occurred outside the confines of institutional walls, to one that not just comprised a growing trend of institutionalised learning, but also an emerging culture of popular musicians whose journey encompassed diverse combinations of formal and informal learning (88.7%[76]). It was also consistent the learning histories of 'expert' drummers in Bruford's (2019) study that showed all of them had formal music learning experiences.

[75] Refer to 'Recruitment Responses' in this thesis.
[76] 14.4%+47.0% +27.3%=88.7% (Figure 2).

Table 18: Juxtaposition of participants' prior classical music training, main instrument and context categories

Context Categories			F (n=11)	I (n=4)	I* (n=19)	F-I (n=62)	I-F (n=36)	F (n=11)	I (n=4)	I* (n=19)	F-I (n=62)	I-F (n=36)				
			Prior Classical Training										Breakdown of prior Classical training according to main instrument			
			No					Yes					n		%	
		n	39 (29.5%)					93 (70.5%)					No	Yes	No	Yes
Main Instrument	Acoustic Guitar	5	0	1	1	2	0	0	0	0	1	0	4	1	80.0%	20.0%
	Electric Guitar	15	0	0	1	3	4	0	0	1	4	2	8	7	53.3%	46.7%
	Piano and/or keyboard	55	1	0	1	2	1	7	0	8	30	5	5	50	9.1%	90.9%
	Bass Guitar	9	0	0	3	1	0	0	1	0	3	1	4	5	44.4%	55.6%
	Drums	15	0	1	1	1	7	1	0	0	1	3	10	5	66.7%	33.3%
	Vocals	26	0	0	2	2	2	2	0	1	7	10	6	20	23.1%	76.9%
	Saxophone	3	0	0	0	1	0	0	0	0	2	0	1	2	33.3%	66.7%
	Trumpet	2	0	1	0	0	0	0	0	0	0	1	1	1	50.0%	50.0%
	Violin	2	0	0	0	0	0	0	0	0	2	0	0	2	0.0%	100.0%
Breakdown of prior Classical music training according to context categories		n	1	3	9	12	14	10	1	10	50	22	132			
		%	9.1%	75.0%	47.4%	19.4%	38.9%	90.9%	25.0%	52.6%	80.6%	61.1%				

Prior Western classical training

Diving deeper into the realms of formal music learning, 70.5% of participants reported occurrences of prior Western classical music training (PWCMT) that preceded their popular music journey (Table 18). It was not possible to determine if this contradicted accounts of popular musicians in the past as there were no significant mentions of Western classical music training (WCMT) in earlier literature[77]. The only study that explored this issue was Green's (2002), and it showed similar engagement levels to this study's sample[78]. Green's study, however, fell short of exploring the factors that led to popular musicians' engagement with WCMT for she argued that 'sociological factors…lie at the edges of the book's central concerns' (p.12). However, as this chapter progresses, the findings will demonstrate that engagements with WCMT played a role in creating tensions within popular music-learning and -making culture. Therefore, the factors that led to the extensive engagements with WCMT are relevant to form a comprehensive understanding of the subject.

The matter was explored through interviews with the representatives of the context categories[79], and the findings revealed that parents/guardians played fairly significant, albeit varying, roles in this study's popular musicians' engagements with WCMT, which ranges from financing those lessons, to the compulsion of attendance regardless of their child's preferences.

Yasmin started electone lessons at the age of four, and began classical piano lessons at age ten, as per her mother's wishes. However, she clarified that her parents did not force her, for they took the position of only providing her with opportunities and exposures, and subsequently, any support if she decided to continue pursuing any endeavour.

Sarah's father was a music enthusiast, and he enrolled her into the Yamaha Junior Music Course (JMC) without her knowledge when she was seven years old. From there, she

[77] Except Finnegan (1989, p.141), who noted that there were popular musicians who had formal classical music learning experiences, but did not expand beyond this statement.
[78] 9 out of 14 participants in Green's sample had WCMT.
[79] Mateo and Eddard did not have any WCMT.

continued with the Yamaha Music Education System till she was 18[80]. At the same time, she started additional private lessons to study the ABRSM piano syllabus at age nine and eventually enrolled into a tertiary level classical music performance programme.

Zayne's father insisted that his son attended music lessons as he grew up enculturated with the perception of the importance of music for brain development. While Zayne objected for many years, he eventually gave in at 12 years old and attended classical guitar lessons, as he had a hidden agenda; he wanted to impress girls and attending lessons was the only means to get his father to purchase a guitar for him.

Haley, currently a drummer, did not come from a 'musically interested family', but was impressed by friends who could play classical pieces on the piano when she was 12 years old and wanted to be able to play as well. Upon informing her parents of this desire, they obliged and financed her classical piano lessons and purchased a piano as well.

Ellie's desire to learn the piano started when her mum brought her to visit a music school. However, her mum was reluctant to allow Ellie to pursue the piano for fear that she might lose interest shortly after committing to this financially significant investment, as she was a single mother (separated). Fortunately, with some persuasion from relatives, Ellie began classical piano lessons at six years of age[81].

Similar to Zayne, Keith's main agenda in signing up for classical guitar lessons at 12 years of age was to acquire a guitar, but at the same time, he also held the belief that for someone who did not know how to play the instrument or to play by ear (like himself), lessons were the obvious choice, as he believed he could learn from those lessons. As time went by, Keith immersed himself in singing and eventually felt that he needed 'proper' vocal training as well to improve his technique.

[80] Sarah explained that the Yamaha course was not strictly classical music oriented.
[81] Haley's and Ellie's accounts served as evidence to argue the validity of the earlier critical observation of Green's (2002) assertion that popular musicians were likely to have came from 'musically interested families'. Haley only required financial assistance, while Ellie's account illustrated the need to discuss social/cultural/financial factors alongside parents' influence.

As can be observed from their accounts, Yasmin, Sarah and Zayne were either guided or forced towards classical music training by their parents, and while Haley, Ellie and Keith opted for lessons without parental encouragement, they relied on their parents' financial support for access to lessons[82].

Despite varying causes and motivations behind their engagements with WCMT, the main commonality among the six interviewees that had PWCMT was that they experienced them at a young age, the oldest being 12 years old. While this corresponded with Green's (2002) observation (p.129), it contrasted in the duration of those lessons. Green observed that classical tuition generally did not last longer than 3-4 lessons among her sample for they found that they 'got little out of them', were bored in lessons, not progressing fast enough, and could not relate to the music learnt (p.148). This study, however, discovered that sustained classical tuition lasting numerous years was typical among its participants, insinuating that today's musicians had become less averse towards classical music and tuition. While that may be the case, sentiments towards WCMT did not diverge much from those in Green's study.

Yasmin, Sarah and Ellie recounted unpleasant experiences with their piano teachers, ranging from inadequate teaching skills to being overly strict or critical. Yasmin did not enjoy her lessons due to her teacher's strictness, and the situation only improved after an intervention from her parents. Ellie, on the other hand, perceived some of her experiences negatively in retrospect. She began describing her first piano teacher as 'pretty crappy' after learning from a different teacher who made her realise that the 'crappy' teacher she had for four years wasted her time as he did not adequately educate her in classical music-making practices.

[82] It was a shame that a comparison between this study's sample and that of Green's could not be made concerning parental/guardian involvement, for it would have been interesting to discover if Green's sample's engagement with WCMT could also be traced to these factors. Be that as it may, the findings in this study could now serve as a reference point for future research in this area to draw comparisons.

Sarah struggled as her teacher was overly critical, discouraging and often belittled her with comments implying that she was not good enough for classical music performances[83]. There was a time Sarah embellished a classical piece in class, and her teacher was extremely upset and made her disapproval clear to Sarah. When Sarah explained that it was natural for her to play what she liked regardless of the written notes, her teacher discounted her by saying she was more suited for the popular music programme, and that they 'do not have good technique anyway'. Unfortunately, incidences such as this were not atypical and were highlighted by Finnegan (1989, p.141):

> *'Children growing up in a context where learning by ear was highly regarded encountered problems when their classical teachers objected to their introducing variations into the music as written out'.*

Besides that, her classical teacher's preconception of the popular music programme's inferiority to the classical one echoed the well-documented discrimination against popular music by institutions laid out earlier in the discussion of the academisation of popular (including jazz) music (Alper, 2007; Dyndahl *et al.*, 2016; Gatien, 2009; Warner, 2017).

Despite these negative sentiments, all of them continued with their classical lessons, even completing Grade 7 or 8 examinations, except Sarah, who continued her training in HE. Her unfortunate encounter took place in the university classical music programme after she had completed her Grade 8 examinations (she eventually quit the classical music programme to join the popular music programme). In retrospect, while her experience with that teacher was a negative one, Sarah believed that it made her aware of her preference to pursue a popular music career as opposed to a classical music one. Whether intentionally or not, her classical teacher pushed her in the right direction, as she enjoyed the popular music programme. She believed that continuation with the classical course would have only brought her misery as she had always been improvising and transcribing, which was antithesis to the focus of the classical programme.

[83] When asked about her classical training, Sarah immediately described her experiences in the HE classical music programme that she enrolled in, without mentioning anything about her pre-university instrumental lessons, despite starting out at the age of 9 and even completing the ABRSM Grade 8 Theory and Piano examinations. This signified the severity of negativity that she experienced with the university piano teacher.

Zayne, who had classical guitar lessons, felt indifferent about them for he believed he did not require them as he could learn to play all on his own. Keith started feeling averse towards his classical guitar training the moment he was nagged by his parents to practise, and lost interest in classical vocal lessons when he realised that he was not getting what he wanted out of those lessons. Such comments were reminiscent of those found in Robinson's (2010) study. While Keith was the only one who opted for WCMT to learn and improve, he clarified that this was because he was only aware of classically oriented music lessons when he was growing up. Furthermore, he was of the impression that popular-music-styled-playing such as playing the melody of the song he liked, or strumming were things that people generally learnt by themselves. Thus, he did not think that non-classical oriented lessons existed. Zayne's lessons only lasted 3-4 sessions, and both Keith' guitar and vocal lessons did not last more than one year.

PWCMT, primary instrument, and learning routes

Even though the initial rationale for acquiring PWCMT data was to determine whether changes in engagement levels and perceptions were observable between past and current popular musicians, one of this study's aim was to examine the relationship between lived experience and learning routes of popular music. Therefore, this study proceeded to examine further the interplay between PWCMT, primary instrument, and the learning routes taken to acquire popular music-making skills, to determine if PWCMT influenced chosen primary instruments and popular music learning routes taken (Table 18).

In terms of instruments, pianists/keyboardists dominated the sample, followed by singers (vocalists), and the fewer number of electric guitarists challenged the notion that electric guitar was the most coveted instrument in a rock band (Bennett, 1980, as cited by Clawson, 1999, p.201). While Bennett, and in extension Clawson, were strictly referring to the values assigned to instruments within rock music, as discussed earlier in the literature review, the boundaries of 'rock' and 'popular' were intertwined and difficult to delineate (Holt, 2007; Shuker, 2012). Therefore, Bennett's observation was arguably applicable in this context, and this discrepancy entices the mind to entertain the idea that the sonic properties and instrumental roles of popular music have evolved.

The high correlation detected between PWCMT and main instrument, specifically piano and/or keyboard (90%), suggested that this instrument could act as a predictor variable to determine popular musicians' WC music background, or vice versa (Table 18); a popular music pianist/keyboardist was most likely to have PWCMT, and a popular musician who had PWCMT was most likely to play the piano/keyboard. The fact that all the pianists among the interviewees had sustained WCMT (Yasmin, Ellie and Sarah) further supported this notion. Similar patterns were also observed among vocalists (76.9%), saxophonists (66.7%) and violinist (100%), albeit in much smaller numbers.

The examination of PWCMT against context categories showed a similar connection. There was a strong relationship between PWCMT and FPML as 99% (n=92) of those that had PWCMT went on to learn popular music in formal environments. This substantial correlation between PWCMT and FPML highlighted the indirect role that WCMT played in changing the landscape of popular musicians' learning backgrounds. The only participant who reported PWCMT but did not proceed to formal popular music training was Zayne, a bass guitarist who was entirely self-taught and only agreed to WCMT in order to obtain a guitar. However, 36 participants[84] (27.3% of the total sample) who reported no PWCMT also had FPML, indicating that while PWCMT was an influential variable for the commencement of FPML, the engagement with FPML alone was not always indicative of PWCMT. Also, the fact that 90.9% and 80.6% from categories 'F' and 'F-I' respectively indicated having PWCMT, inferred that PWCMT was not just an influential factor in the commencement of FPML, but also its occurrence before IPML.

[84] 1+9+12+14=36 (Table 18)

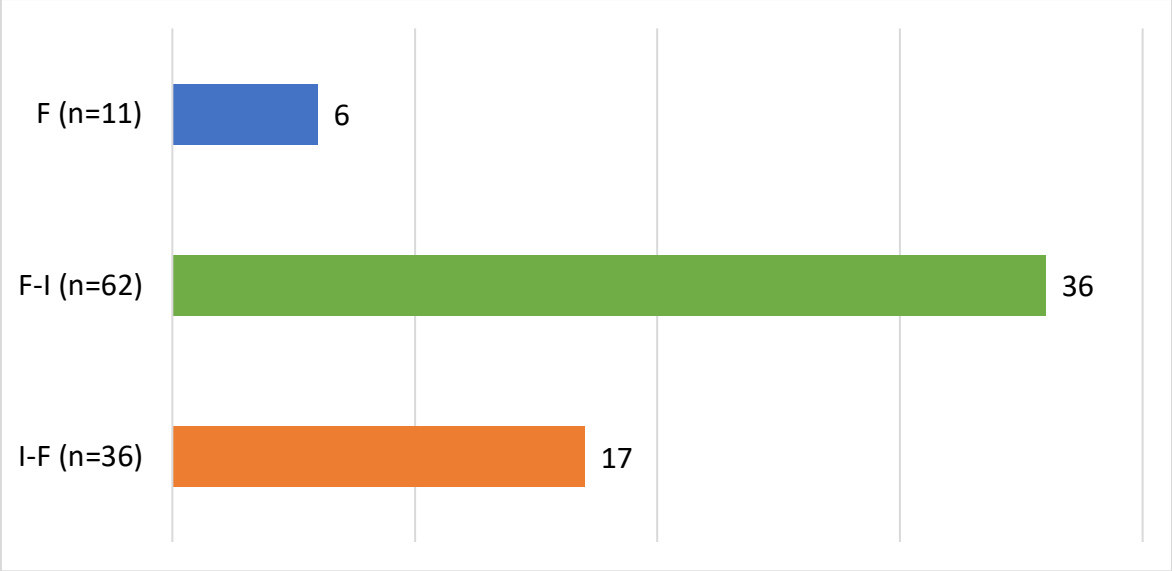


Figure 3: Formal learning being the only known method of music learning

Awareness of learning methods

Investigating the issue of the commencement of FPML further, Figure 3 showed that 54.1% (n=59[85]) of those that had formal training (n=109) reported that it was the only method that they were aware of, suggesting that they had no prior knowledge of popular music's informal music-making culture, and this was confirmed by Sarah, Ellie, Haley and Yasmin. This finding painted an immensely contrasting picture from that of the past, where literature portrayed informal learning practices, such as figuring out how to play a song on one's instrument of choice by oneself or 'getting' a song with friends, as normal and common among popular musicians. While it was tempting to credit this to PWCMT, there was no convincing evidence to conclude as such; immersion into classical music practices does not equate an absence of knowledge of informal music learning practices. However, there was reason to speculate that social/cultural/geographical disparities were influential factors in this case, for 71.6% (n=78, Table 13) of participants who engaged with FPML, primarily learnt in countries from the Eastern bloc[86]. It was probable that, with popular music being a foreign culture in these parts of the world, enthusiasts were not familiar with its music-learning and -making culture. Instead, they were more familiar with another

[85] 6+36+17=59 (Figure 3)
[86] China, Indonesia, South Korea, Malaysia and Singapore.

mode of music learning; formal learning. However, this was pure speculation and further research is needed to determine the validity of this claim.

While 59 participants indicated formal learning as the only mode of music learning they were aware of, 28.8% (n=17) had informal learning experiences before their commencement of FPML (I-F), which raised questions about the meaning of their answers, to which interview findings shed some light on this predicament.

Keith sought out classical voice lessons as he yearned to learn specific vocal techniques; he saw formal training as a means to acquire skills and knowledge that was unachievable on his own. Eddard and Mateo, both from the 'I-F' category, expressed similar sentiments as well. Mateo, after a period of self-learning, believed that he could learn more from formal lessons but mentioned that this outlook might have been influenced by his mum, as she had music lessons before. She expressed to Mateo that he needed 'proper training to learn properly', thus encouraging him towards FPML. Eddard, on the other hand, grew up in an environment where everyone learnt to play musical instruments without formal lessons. After 12 years of being self-taught, he felt that his drumming had hit a plateau, and saw formal lessons as the solution. His ear-playing skills could not catch up with his ambition, as there were fast fill-ins that he struggled to learn by ear, even when he had access to the notation, he lacked the knowledge to understand them. Therefore, Eddard enrolled for drum lessons with the sole purpose of learning the skill of notation. Beyond that, Eddard aspired to become a professional musician and believed that formal training was the only route to that goal. In all instances, Keith, Mateo and Eddard sought formal training after sustained periods of IPML for this was the only way they knew to improve further, to become professional musicians, and they believed that formal training could offer something that was not achievable on their own. This correlated with Green's (2002) and Robinson's (2010) findings.

Higher Popular Music Education (HPME)

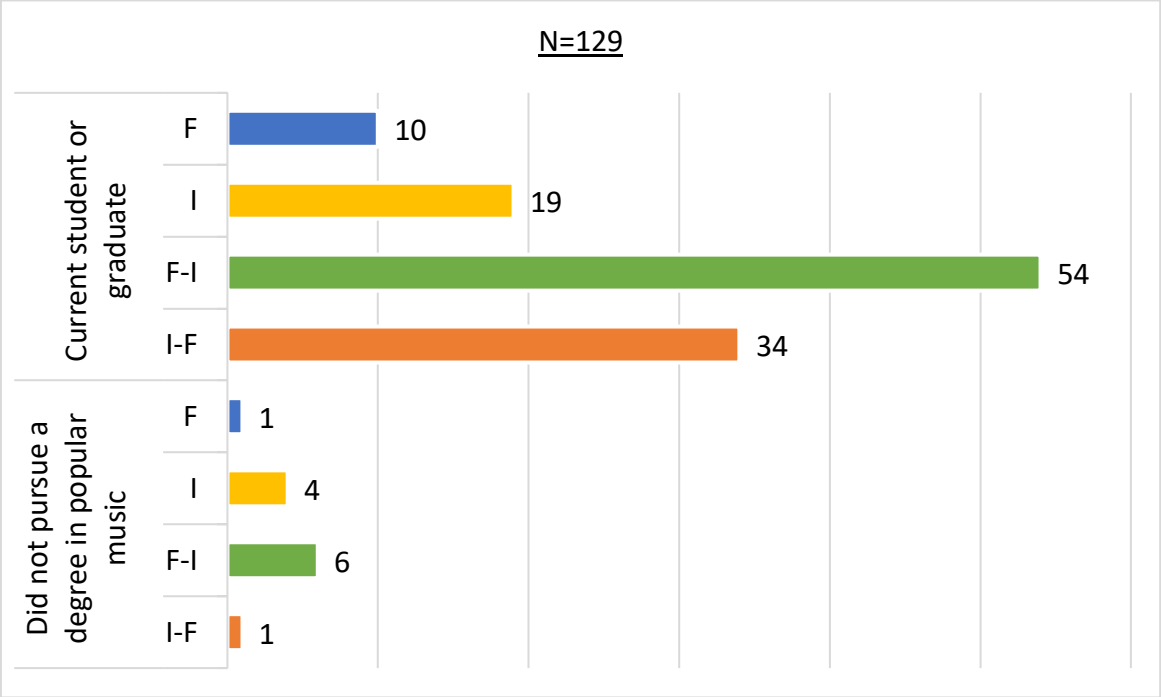


Figure 4: Pursuing or graduated with a degree in popular music

Engagements with HPME

Demonstrated in Figure 4, 90.7% (n=117) of the sample were either pursuing or graduated with a popular music degree at the time of data collection. While this contradicted past accounts of popular musicians' independence from formal institutions, it should be reiterated that majority of the sample who agreed to participate in this study were recruited from universities, rendering the need to view this finding with caution. However, even if the sample was not an accurate depiction of the wider population, the discovery of such vast numbers of popular musicians who were/are products of institutionalised learning do point towards the burgeoning of HPME and its consumers, and in effect, the growing numbers of institutionally trained popular musicians, who essentially differed from their predecessors, and their contemporaries who remained true to popular music's 'traditional' music-learning and -making culture.

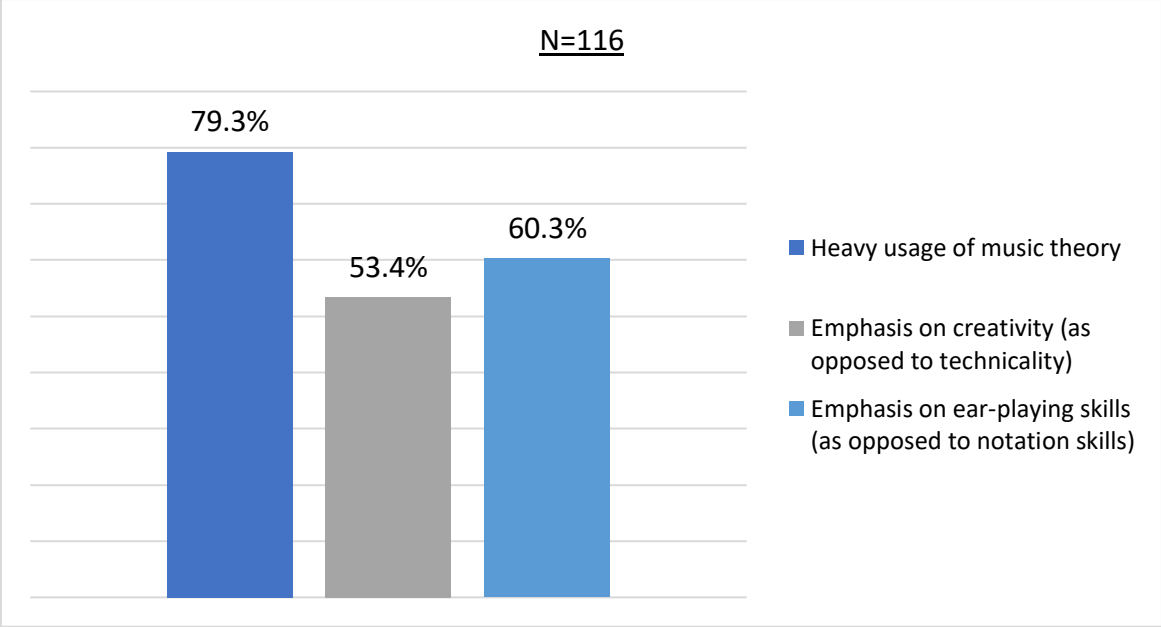


Figure 5: Characterisation of HPME programmes

The issue of values in HPME examined by scholars covered a broad range of aspects that arguably, in one way or another, could fall into two broad categories that Robinson (2014) referred to as 'principle value' and 'transactional value'. 'Principle value' encompassed 'discussion of the intrinsic value of knowledge, moral values, values relating to social justice, the personal and professional values of educators and students, and ideological values', while 'transactional value' revolved around discussions of 'benefit- sacrifice exchange, value-for-money and student-as-consumer value' (p.16). An example of a 'principle value' study is the examination conducted by Mark Huggins (2021) that explored 'the pedagogy of popular music theory in higher education institutions by examining the pedagogical reasoning and action of professors who taught popular music theory courses in HPME institutions' (p.iv), while Rich Hall's (2019) research titled 'An analysis of undergraduate motivations, perceptions of value and concerns in pursuing higher popular music performance education' is an example of a 'transactional values' study. The intention of this study concerning HPME values were considerably less exhaustive than those cited above, but as it was mainly concerned with the values of knowledge, personal and professional values of students, and ideological values, it sits within the confines of the 'principle values' category.

Theory

The exploration of institutional values found that majority of popular music students (79.3%) characterised the programmes they studied to have a heavy usage or presence of music theory, perceiving significant values assigned to theoretical and analytical approaches of understanding and observing music. This finding, from the students' perspective, was consistent with Cloonan and Hulstedt's (2013) study on the provision of PME in the UK from the perspective of educators.

The interviews revealed that this characterisation could be translated into the form of employing theoretical knowledge in the music-making process and the analytical understanding of the music being played. Yasmin's and Eddard's reasons for this assessment were due to the extent of theoretical work required across the programme; the faculty expected students to theoretical understand the music that they were attempting to learn, knowing the notes that should be avoided, or not played together.

Ellie explained that the faculty expected students to use their knowledge of music theory to facilitate their music transcription process, especially music that had many simultaneous sonic layers. Similarly, Sarah was also taught the application of music theory in transcribing and sight-singing exercises, to improve not only her understanding of what she was listening to, or reading, but also the performance of it. Additionally, she described a hegemony of theoretical analysis in the ways the faculty observed and explained music.

However, Haley and Ellie both elaborated that theoretical knowledge was learnt in isolation to practice, packaged into a module focused purely on the knowledge itself. They preferred modules to also focus on how the knowledge could be incorporated into other areas of their practices, rather than leaving the students to their own devices. These sentiments were not new and resembled those found in Parkinson and Smith's (2015) study.

There seemed to be a shift in attitudes towards music theory when compared with the findings from Finnegan's (1989) study, as all the interviewees (bar Keith) were either content with current levels or preferred an increased use and understanding of music theory. Eddard claimed that it not only enabled him to better understand the music he was

playing, but also other musicians' approach to playing that same music as well. Similarly, Haley believed that a theoretical and analytical approach to observing music was beneficial and could enhance a musician's music-making potential. However, it was observed that such attitudes were developed only after engagement with music theory in their practices.

This depiction of theoretical knowledge in popular music-making practices would have been an anomalistic phenomenon just decades earlier, as it contrasted Green's (2002, p.97) assertion that 'knowledge of music theory [tended] to be acquired haphazardly according to whatever music [was] enjoyed and played'. However, Lebler and Carey's (2008) survey findings already showed signs of change. Given the growing numbers of musicians engaging with HPME as demonstrated by the survey findings, the structured independent study of music theory can be considered quite common in today's landscape. This in turn, developed in students, attitudes towards music theory that not just conflicted with popular musicians of the past, but with current non-HPME popular musicians as well.

Creativity vs Technicality

Another area explored was the values that institutions assigned to creative and technical proficiencies. As shown in Figure 5, 53.4% perceived their programmes to have placed more value on creativities, as opposed to technical proficiencies. This characterisation from the students' perspectives conflicted with Alper's (2007) and Parkinson and Smith's (2015) discourse surrounding creativity development within a systematic, structured mode of learning. While 46.6% of participants had perceptions that were in one accord with literature discussed in previous chapters, the characterisations of the 53.4% warranted an examination. Have the programmes evolved and found ways to foster and encourage creativity within systematic learning? Or was it purely due to students having perceptions, or expectations, of creativity that were different from music educators and scholars? Regrettably, the interview findings could not satisfactorily determine the reasons for this contradiction, for there was a consensus among the interviewees that technicality was valued over creativity.

Yasmin asserted that the instruction she usually received focused on the technical aspects before branching out into creative ideas; Haley lamented that her lecturers tended to

favour performances of music that were technically demanding; Ellie explained that technical requirements dominated assessment criteria, and performance feedback that they received from their lecturers mainly revolved around technical issues. What might result from this emphasis on technical proficiencies was that students' values and attitudes would align with those experienced in HPME[87]. Technical proficiency, if perceived to be of utmost importance, becomes their sole priority. Consequently, students would spend a bulk, if not all, of their practise time dedicated to the proficiency of technical aspects of their craft, and this notion was described by Sarah as well.

If Yasmin, Haley and Ellie's observations were perceived to be on a micro-level, Sarah, who had graduated and established herself as an accomplished musician in the industry, observed the situation on a meso-level. She revealed that emotions, expressions and showmanship were generally lacking in 'top-rated' musicians who taught peripatetically in her programme, which translated into a general perception within her university environment that 'the more complicated songs you [played], the more impressive you [were]', instigating many students to disregard songs that were 'simpler'.

> *'They always want to be flashy, always want to be like "how can I play this faster", you know [to] look more impressive, rather than how can I take this person into my world'.*
>
> *'They just go from loud to really loud, or just loud, you know what I mean? There's no sensitivity in each note they play…there's no individuality, like there are other parts that you should see besides technicality'*

Sarah, on the other hand, was fascinated by 'simpler' songs such as those by Brad Mehldau that manage to draw listeners in even when just lingering on one chord. However, what she experienced in her programme was a lack of appreciation towards the nuances of technically easier songs.

She also observed that the teachers' approaches to music-making also stemmed from a technical angle. Comparing how American Jazz pianist Helen Sung and Malaysian Jazz pianist Tey Cher Siang (a peripatetic piano teacher at numerous institutions in Malaysia) described their approaches to music, Sarah explained that TCS had a more methodical and

[87] This assertion was observed in the Prepared Performance test results presented in a later subchapter.

analytical approach. He provided a broken-down analytical explanation of what was going on in the performance and highlighted the scales used. In contrast, Helen, had a more expressive approach, emphasising not on the notes played, but how the musician approached those notes, the solos, focusing on the bigger picture before zooming into technical specificities.

While Sarah propagated that attention to expressions and creativity should be substantially increased and encouraged, with more room for students to discover their own sounds, she acknowledged that this would be a challenge in the university environment she was in, as most lecturers and instrumental teachers encouraged students to be 'copycats', and angled students' approach to learning and observing music by copying and analysing the performances of quintessential figures in popular music. This was concurred by Zayne. While he did not have any engagement with HPME per se, he spent many years in the music scene and engaged with a diverse range of musicians and concluded that formal training was the culprit for the loss of individuality and the production of generic-sounding musicians. Zayne's belief of the impacts of formal training was not radical, as similar sentiments were already expressed by Alper (2007) and Gatien (2009), as discussed above.

Ellie too opined that there should be focus directed towards displays of creativity and creative endeavours. However, Haley had a more realistic outlook, explaining that creativity is very individual and subjective. Thus, it was difficult to define and set boundaries of creative efforts. However, if that were not an issue, more emphasis and room for creativity was desirable, as she sees technical proficiencies and theoretical knowledge as tools for creativity. Yasmin, while expressing sentiments similar to Haley's, was content with an emphasis on technical skills, and proclaimed that it was beneficial for non-creative individuals like her, as a strong foundation in technical skills provided her with the tools and abilities to attempt creative efforts, and to execute that creativity in her craft.

While the programmes were perceived to have a lopsided emphasis on technical proficiencies, and a preference for creativity to be assigned more value was observed, the interviewees demonstrated an awareness of the challenges of framing creativity into a quantifiable entity and acknowledged the reciprocal relationship between technical skills

and creativity. Given the demographic similarities among the interviewees and the fact that their responses to this enquiry did not reflect the findings from the survey, it was more appropriate to view the high value bestowed upon technical proficiencies, as suggested by the interview findings, as reflective of Malaysian HPME. If that was the case, it warrants an investigation into the ways non-Malaysian HPME programmes fostered creativity within systematic learning. However, the notions and impacts of technical emphasis highlighted here correlated with literature about HPME in the UK, US and Scandinavia (such as those cited in previous chapters), giving credence to the findings here to be applied more generally. In this case, the discord between the survey finding, that more than 50% of participants perceived their programmes to be creative-oriented, and existing knowledge, that creativity and formal learning are in opposition, must be investigated further.

Ear vs Notation

The last area explored was the balance of values between ear- and notation-based skills. Data in Figure 5 showed that 60.3% of the participants characterised an emphasis on ear-playing skills over notational skills in their programmes[88]. This meant that 39.7% perceived an emphasis on notational skills, which corroborated with Fleet's (2017, p.169) finding that 46% of the UK's HPME programmes required students to be familiar with, or fluent in, notation reading. Fleet's study focused on the design and structure of the programmes, and it was also reported that the remaining 54% did not require, nor went on to teach notational skills. This led to the examination of what the 60.3% and 39.7% figures in this study actually represented. Were the programmes designed with emphases on, or absence of, particular skills (similar to those examined in Fleet's study)? Or were the findings purely reflective of the participants personal perceptions? Examining this query further through the interviews revealed that the characterisations of programme emphases (whether notation or ear) could be traced to a combination of both aspects.

Yasmin elaborated that there was an overall expectation of learning songs by ear and transcribing, while Ellie opined that a lot of what she was required to do in the programme involved using her ears, and even among students, they communicated their ideas through

[88] Surprisingly, this contradicted the reports on instrumental lessons (38.5% ear: Figure 9)

demonstrations rather than through notation. While their comments revolved around music-making practices and communication, Haley's observation primarily sat within the realms of attitudes towards the constitution of a good performance, explaining that the lecturers tended to prioritise the tightness in sound of the band over everything else.

> *'As long as the band is tight, even if their counting is off, or not very accurate, they won't say anything'.*

On the other hand, Keith felt that there was too much emphasis given to notational skills as there were plenty of sight-reading components across the programme. Beyond that, exercises to train ear skills in aural modules were always part of a transcription exercise. While not directly about learning notational skills, Eddard's comment depicted the attitudes and values of the programme towards notational skills. He elaborated that students were required to submit scores of all the songs they played for any performance assessments and were subsequently barred from performing songs without submitted scores. This policy had prevented him from choosing songs that could showcase his skills solely because he could not find the score, or it was too difficult for him to transcribe. This strict policy bore a resemblance to Björnberg's (1993, p.74) description of Aalborg University Centre (AUC) in Denmark.

There appeared to be a pattern among the interviewees, and it revealed the tensions that developed between the perceptions of musicians with extended periods of formal and informal learning. Yasmin, Ellie and Haley, all of whom had extensive periods of formal learning, perceived there to be a higher emphasis on ear-based skills in HPME, while Keith and Eddard, who only engaged with FPML, in the form of HPME, after sustained periods of IPML, perceived the opposite. This pattern demonstrated that learning histories, at least in terms of the engagement sequence of formal and informal learning, had the potential to shape values and attitudes.

Sarah was the sole interviewee to perceive her programme to have had a good balance syllabus-wise; there were modules emphasising music reading and theoretical understanding, and others that required ear-related skills. Also, transcribing, which required an effort combining notation- and ear-related expertise, was highly encouraged.

The interviewees accounts revealed that regardless of whether programmes were perceived to have had an emphasis on notation- or ear-based skills, all the programmes consisted of elements that encouraged the developments of both skills. Despite being enrolled into programmes that had emphases on ear-playing skills, notational elements were still significant in their HPME experiences, especially in the form of notating sounds that were heard. Therefore, the survey finding that 60.3% of participants perceived their programmes to emphasise on ear-playing skills, should not be translated to mean that there was an absence of (or a lack of emphasis on) notational practices in those programmes, and vice versa. Instead, this survey finding should be understood within the context of the influence of learning histories on the musicians' perceptions.

This notion should be aptly applied to the findings related to 'theory' and 'creativity vs technicality' as well. Parkinson (2014) asserted that 'students, like academics, must surely be seen to arrive at the academic setting in possession of a set of values issuing from their prior experiences, and informed by influential figures in their lives' and 'are arguably as susceptible as academics to "values schizophrenia" (Ball, 2003; quoted in Skelton, 2012, p.257) when their existing values are at odds with other values inhering explicitly or implicitly within the academic setting' (pp.171-172). While this study did not acquire data that could explain the perceived hegemony of theoretical analysis, the emphasis on creative, technical, notational or ear proficiencies, Parkinson (2014) suggested that such values could have derived from the formative experiences of the educators that 'not only included musical and vocational values but in some cases ideological values', and their pedagogies could be seen to be 'rooted in, and promoting values associated with, specific genres' and 'employed pedagogical devices to promote these values' (pp.206-207). Therefore, the findings here only revealed the students' perceptions of institutional values, that might not have been reflective of the values of the academics they encountered, or the programmes they engaged with, as the culture the students were exposed to in the programmes might have been at odds with their own.

Instrumental Lessons

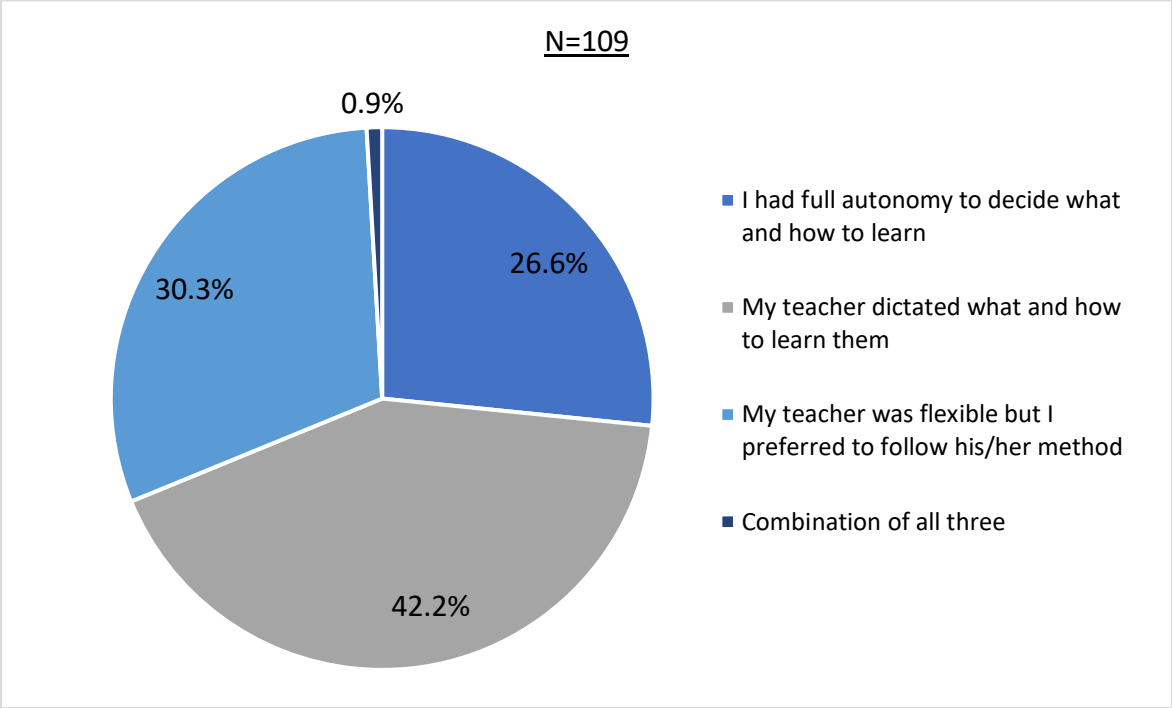


Figure 6: Balance of autonomy between teacher and student in instrumental lessons

Autonomy

In her book, Green (2002, pp.104-106) wrote,

> *'Enjoyment was…a major aspect of all the musicians' learning practices…[based on] the fact that the music covered is selected from the styles, or the music created is in the styles which the musicians liked and identify with'.*

Green was explicitly describing enthusiasm and enjoyment as core attitudes of informal learning. However, the study was about popular musicians and titled '*How do popular musicians learn*', thus implying that earlier popular musicians enjoyed complete autonomy in the music-making and learning process. This characterisation was also observed in other literature describing the informal music learning experiences of popular musicians (Bennett, 1980; Cohen, 1991; Finnegan, 1989).

However, this no longer appeared to be the case, as the aggregated data on formal learning (Figure 6) indicated that only 26.6% (n=29) had full autonomy in their popular music instrumental lessons (PMIL) while 42.2% (n=46) did not have a say in what or how they

wanted to learn. The fact that, of all the options to choose from, 46 participants inclined towards characterising their PMIL as having to follow their teachers' pedagogies as opposed to following those pedagogies voluntarily, was suggestive of their sentiments towards the relationship dynamics in lessons, and the learning process.

Beyond this observation, the findings merited further investigations into the meanings behind their characterisations, and also to determine the ways in which their autonomies were inhibited or allowed. It was discovered through the interview findings that autonomy (or lack of it) in lessons were experienced in diverse ways. In some cases, student autonomy was inhibited by the teacher, in other cases, both student and teacher autonomies were inhibited by the syllabus. However, there were also instances where student autonomy was not restricted by neither teacher nor syllabus.

As Yasmin's experiences with PMIL only occurred in HPME, there was a comprehensive syllabus to follow, thus leaving little room for either Yasmin or her teachers to decide on the learning content. However, her level of autonomy in lessons reduced further as her teachers were insistent on their pedagogic style and even gave detailed instructions on how she should learn or practise.

Ellie's PMIL teacher had a different approach to teaching that allowed her some allowance to dictate what and how she wanted to learn. Experiences with this teacher took place within HPME, meaning there was a syllabus to follow and a performance exam at the end of every semester as well. However, he did not play an active role in her preparation for the exams. Instead, he only reviewed her efforts and preparations before the exam, without interfering in her choice of songs, nor spend lesson time working exam-related materials. Ellie explained that he held the belief that the preparation and passing of exams were her responsibilities, while his job was to prepare her for life beyond the scaffolding of university walls, and structured lessons revolved around the music/skills/knowledge that he required her to learn. Thus, while Ellie had to conform to her teacher's pedagogy and teaching philosophy, she had complete autonomy in the music that she wanted to be assessed on (conforming to the requirement of the syllabus), and how she went about learning them.

Haley went through many drum teachers before and during HPME, and their pedagogic styles and teaching philosophies could be categorised into those that resembled formal classical instrumental tuition, and those that infused informal music learning characteristics. While Haley characterised the 'informal' lessons as 'open' with space for exploration and experimentation, implying that she would have enjoyed significant levels of autonomy in the learning process, this was not the case. She recalled an instance of being given a stroke exercise or an idea, and then was expected to explore and discover how she could develop it on her own, without much instruction on the ways to develop an idea.

Similar to informal learning characteristics, where the learner had to be independent in finding solutions to problems or difficulties faced in the learning process, her 'informal' teachers did not provide comprehensive advice on how something should or could be done. Instead, they expected her to figure it out on her own and find a solution, even after Haley struggled and requested some instruction. Coming from extensive periods of WCMT on the piano and drum instrumental lessons that mirrored formal classical instrumental tuition, Haley was used to detailed guidance and instruction. Therefore, she struggled with a pedagogic approach that largely left her to her own devices. An open and exploratory approach, in theory, should have afforded Haley autonomy in the learning process. However, in her case, there was a lack of it, as her characterisation of the issue revealed a sense of desiring greater guidance from her teachers, but they would not compromise, insisting that she learn through specific methods; her 'informal' teachers dictated how she should learn. Haley's encounter demonstrated that the experiences of informal popular musicians being instructed to learn materials/skills and/or in a way that they were not ready or willing to learn in lessons, as depicted in Green's (2002) and Robinson's (2010) studies, could also be reversely applied.

On the other side of the spectrum, Mateo, Sarah and Eddard asserted that they enjoyed positive levels of autonomies; their teachers were open to tailoring lessons to accommodate their preferences in music and ways of learning. Mateo explained that his relationship dynamic with his first teacher during his developing years (earlier grades), was one that was relatively autocratic, with excessive monitoring of his progress. However, his levels of autonomy increased as he progressed through the grades, till the completion of

his degree programme. The further he progressed, the more autonomy he was allowed, and his teacher's role transitioned into that of a mentor, reviewing his performances and providing feedback, rather than constant supervision of every aspect of his learning.

Eddard's experience was similar to Mateo. Compared to his later teachers, his first teacher was relatively unwavering in his pedagogic style and teaching philosophy. He insisted that Eddard learnt the basic techniques properly, and new materials were always introduced with notation as they studied the Rockschool syllabus. However, his teacher would oblige when Eddard requested to learn something else. While the use of notation as the sole means of knowledge transfer appears dictatorial, it was mentioned earlier that Eddard went for lessons for this specific purpose (notation reading). Though Eddard was not interested in techniques at the time, he began to realise its importance and benefits when he started receiving HPME. The timing of this realisation aligned with Green's (2002) assertion that the importance of technique became apparent to many popular musicians at later stages of learning.

During Eddard's HPME period, he encountered two drum teachers who were similarly flexible and were willing to adapt their pedagogies to accommodate Eddard's preferences without losing sight of the syllabus. He made known to the first HPME teacher of his desire to improve notation reading skills, so the teacher made a point to introduce everything through notation. His second teacher, on the other hand, allowed him to decide how new learning materials were introduced every time; by ear or notation. In both instances, Eddard had the autonomy to decide how he wanted to learn.

Earlier paragraphs revealed that Sarah struggled to learn from an overly critical classical piano teacher and quit the classical programme soon after. However, she clarified that the rationale behind the withdrawal comprised of another factor; the critical classical teacher made her realise that she might have preferred to pursue a popular music career, as her inclination had always been to improvise, experiment, and to play as she liked rather than to strictly follow notes on a score. Therefore, in comparison to her time in the classical programme, Sarah thrived in the popular music programme because she was with a FPML piano teacher that was well suited for her. Sarah was extremely fond of this teacher and

described her as a fun person who, liked to look at things from different perspectives, was very open to Sarah's 'unconventional' music preferences[89], and also facilitated her learning by encouraging her to have a more experimental and exploratory approach to music.

> *'Cause a lot of students would, I mean there's pros and cons, but a lot of students would study jazz standards and like really play exactly like the older recordings, but her approach was more "huh, what can you do with this song?", like how can you make it your own, maybe you change the style, maybe you reharm, so she introduced me to a lot of outside the box ideas'.*

Through the interview findings, it was discovered that the reduced levels of autonomy experienced by the participants were not always due to the characteristics of formal learning, as there was evidence that student autonomy and systematic modes of music learning can coexist. Instead, it was the result of their teachers' pedagogic styles and philosophies. Some teachers were more steadfast in their pedagogies than others. Hence, the varying views in autonomy levels by the participants were also influenced by their encounters with teachers that differed greatly in their pedagogic approaches.

While that may be so, the reality was that many still experienced teachers who were unwavering in their teaching approaches, as 42.2% of participants reported that they had no say in what or how to learn. Given that a sizeable portion of popular musicians today experienced FPML, it was safe to assert that not all experienced enthusiasm and enjoyment in the process of becoming popular musicians, at least not throughout the entirety of their musical journeys.

[89] Her musical preferences were considered unusual in this context because there was a jazz music cultural hegemony in the popular music programme she was in, but she went against the current, spending bare minimum time studying jazz and went on exploring other genres instead.

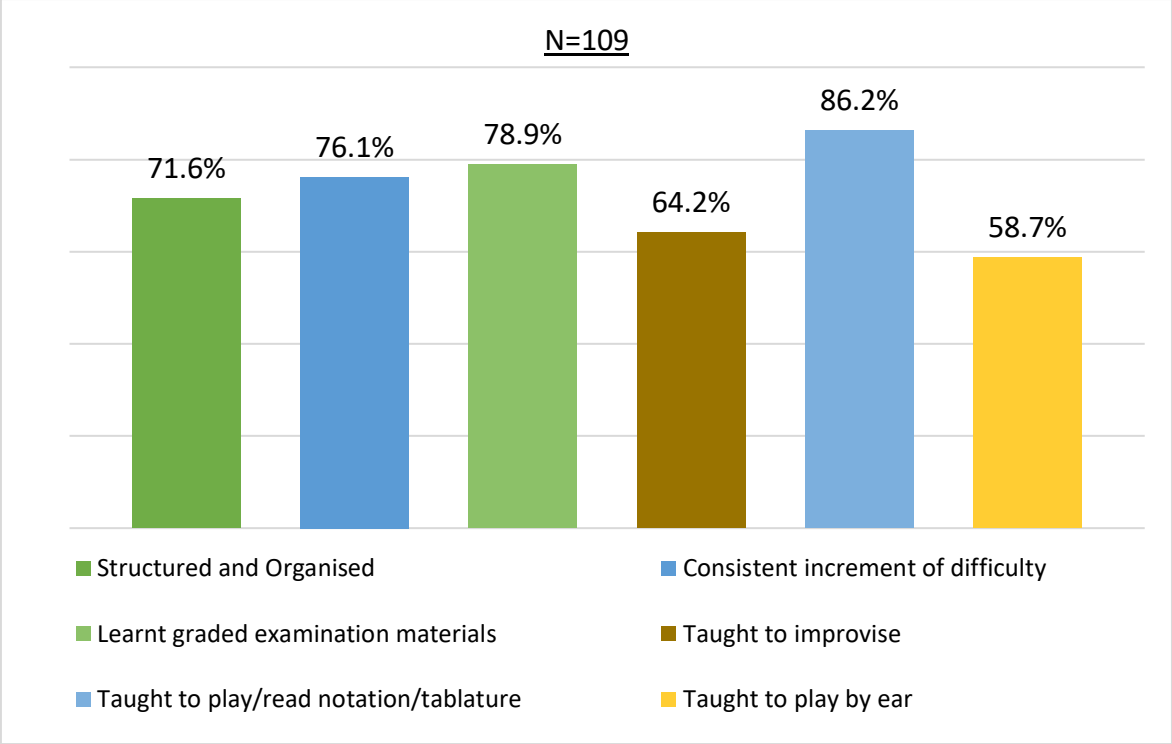


Figure 7: Characterisations of instrumental lessons

Characterisations of instrumental lessons

Beyond the balance of autonomy, participants characterised instrumental lessons to be structured and organised (71.6%), and with regular increments in difficulty level (76.1%); this was consistent with the fact that majority of them (78.9%) learnt graded examination materials including HPME instrumental exam syllabi (Figure 7). Yasmin, Mateo and Haley confirmed these characterisations. They experienced PMILs that were well-planned, organised and progressed with structured increments in difficulty levels, and noted that this was not extraordinary as their teachers were following Rockschool, Rock and Pop or HPME examination syllabi.

Contrastingly, Eddard and Ellie revealed that their lessons were somewhat haphazard in that they could learn something this week, followed by something completely unrelated the following week. However, their teachers did monitor their developments, and introduced music and techniques that were increasingly challenging as the semester progressed. There were also expectations of them to have developed advancing understandings of the music they were learning as they progressed.

Sarah's teacher, on the other hand, had a structured approach to understanding music and the implementation of technique, but she was relatively haphazard when it came to the content taught. Sarah explained that most teachers introduced students to bossa nova before attempting samba, but her teacher went straight to samba instead. She was also encouraged to record lessons, as her teacher often forgets what had already been taught. However, Sarah noted that she did not require a structured, methodical approach. Thus, her teacher could afford to be 'all over the place'.

In all cases, there were varying degrees of structure and organisation in the ways these musicians learnt. Understanding this with the findings on student autonomy in lessons depicted disciplined learning processes that contradicted the informal learning characteristics as of past popular musicians, which were aptly described by Green (2002).

> *'They have a sporadic approach to practice, so dedicated practice regimes during some periods can revert to lack of routine or of any practice at all in other periods. Amounts of practice and the nature of practice task also vary considerably from individual to individual (p.97)'.*

> *'Popular musicians' attitudes towards music learning are quite far removed from any notion of being disciplined or requiring discipline…by contrast, for them music learning is highly enjoyable and voluntary, with love and even passion for music and music-making being interwoven in all aspects' (p.124).*

In essence, past popular musicians not only dictated their music learning processes but also had haphazard approaches; learning what they wanted, when they wanted, without expert supervision. They did not require discipline as they were passionate and self-motivated, which was a core requirement for informal learning. According to the findings, most current popular musicians who had instrumental lessons would be used to supervised and structured approaches of learning, and the consequence of this could be observed in their passion for and motivation to master their craft (discussed later in Figure 10).

NOTATION AND EAR

In terms of notation knowledge and ear-playing in lessons, being taught to play/read notation/tablature was the highest indicated characteristic of formal popular instrumental lessons (86.2%), while only 58.7% reported being taught to play by ear. The dominant presence of notation reading over playing by ear was expected as it was informed by

Robinson's (2010) study that asserted the adoption of established formal pedagogical styles to teach even if the teacher came from an informal background. This data may appear to contradict Fleet's (2017) findings, but that was not the case, for the data here encompassed HPME and non-HPME instrumental lesson, whereas Fleet's findings were only reflective of HPME provisions. Therefore, examining the 86.2% against Fleet's and this study's earlier findings regarding notation in HPME suggested that there were heavier presences of notation in non-HPME FPML, and this was confirmed by the findings from the next enquiry (Figure 9).

IMPROVISATION

The data in Figure 7 further showed that a majority of participants (64.2%) reported being taught to improvise in lessons, and the interview findings revealed diverse experiences with being taught to improvise in FPML lessons; there was no standardised teaching methods.

Yasmin learnt improvisation from two teachers; her instrumental teacher, and another lecturer in the 'Introduction to jazz improvisation' module. Both teachers taught her to begin by listening to the music then sight-read the lead sheet, or to just sight-read, before attempting to improvise over the chord progressions. After that, they playback-ed recordings of different renditions of the song to analyse the improvisation of others. While the module lecturer explained the conventional approaches to improvisation and how Yasmin could apply it to her own, her piano teacher only described the sections of the song where a solo might take place and the chord tones or tensions that were appropriate, without explaining how to approach the solo. Her piano teacher's method essentially provided Yasmin with the tools to improvise without revealing how she might use them. The closest advice she received from this teacher was to pay attention to how musicians in the recordings approached their solos, to recognise the space that they left at the beginning, and how their improvisations built and got more complicated. He also advised her to 'copy' the solos she heard in the song as a means to learn how to improvise; study the improvisation of others and incorporate those ideas into her improvisation. Ellie described receiving similar advice from her teacher as well; learn the solos of others first by copying them before attempting to play her own improvised solos.

Eddard too was instructed to watch and observe the solos of some of the great drummers, and he explained that while his teachers did not precisely taught him how to improvise (there were no step-by-step exercises), they talked about how to approach improvisation based on context by watching and analysing drum solo videos in lessons.

Haley, on the other hand, revealed that one of her teachers gave her practical guidance on how to improvise.

> *'He gave me a box, but it's not everything, just the box, and I try to stick to the box first, then jump out a little bit from the box, then slowly the box changes to a different box'.*

What this teacher effectively provided Haley with, was a structure and system to help her gradually 'play without any form', whereas the extent of guidance she received from the other teachers was to 'just play whatever comes into your mind'. This structureless approach may not have worked with learners like Haley but turned out to be suitable for those similar to Sarah, who did not require much structure. Sarah's experience of improvisation in lessons usually took place in the form of jam session where her teacher would start playing a riff or idea, and they would jam together, essentially encouraging Sarah to play whatever came into her mind.

However, not everyone was interested in the art of improvisation despite being a taught element in lessons. Both Haley and Ellie mentioned that improvisations was not a stable element in their practise routines and would only work on it when necessary (as part of an assignment or in preparation for an examination).

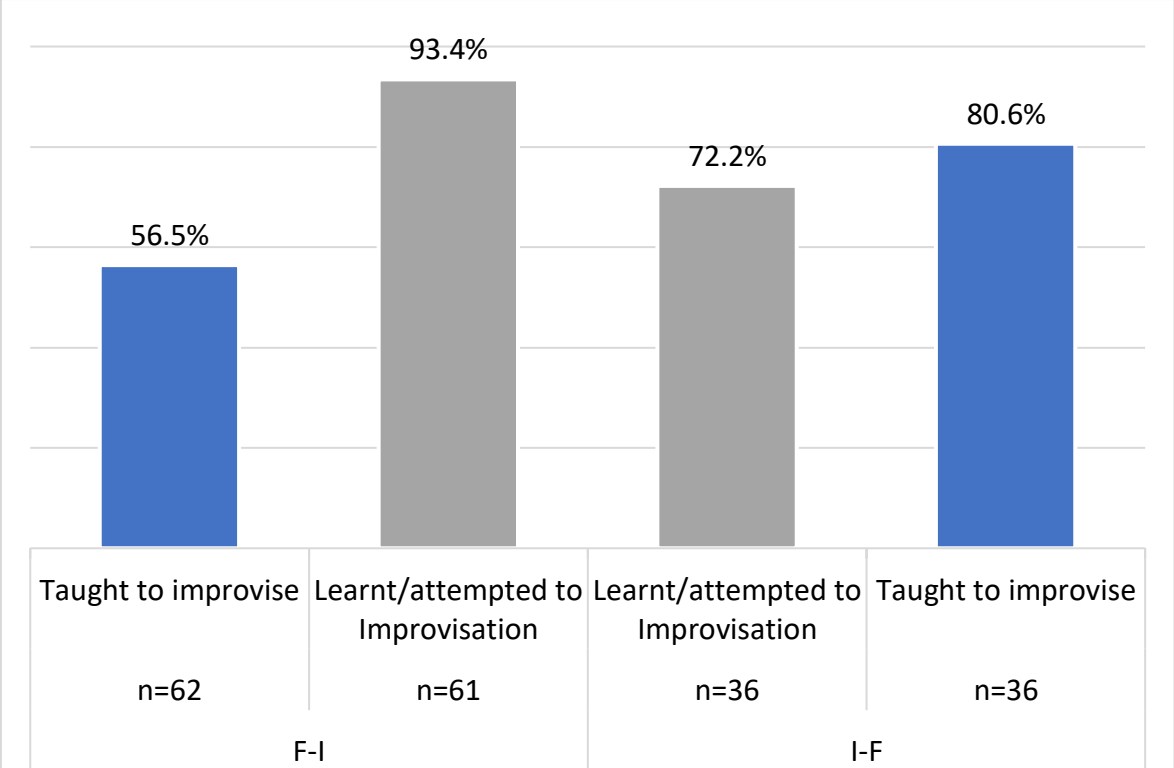


Figure 8: Occurrence of improvisation during combination categories' formal and informal periods.

Improvisations during periods of formal and informal learning

In an effort to determine if the remaining 35.8% (Figure 7) improvised outside of lessons or if they felt indifferent towards improvisation as a result of not being taught to in lessons, this study looked to the combination categories to compare the occurrence of improvisation between their formal and informal periods (Figure 8).

The examination of the 'F-I' category proved that despite not always being taught to improvise in lessons, the participants were interested in, and did eventually practise, the art of improvisation. 56.6% of participants reported being taught to improvise while engaged in FPML, and 93.4% indicated that they learnt or attempted to improvise during their IPML periods. This calculation demonstrated that 36.8% of participants went on to learn improvisation after FPML.

On the other hand, the 'I-F' category had higher reports of improvisation in lessons (80.6%) than the 'F-I' category (56.4%). This demonstrated that FPML engaged with after periods of IPML were more likely to encompass the teaching of improvisation skills. At the same

time, it also could mean that improvisation was only taught after a certain level of proficiencies were attained (whether through FPML or IPML). Coupled with the finding that all but two from the 'I-F' category (n=34, Figure 4) were either pursuing or graduated with a degree in popular music, it also implied that their characterisations of instrumental lessons included those that took place in university programmes, suggesting that university instrumental lessons were more likely to teach the art of improvisation.

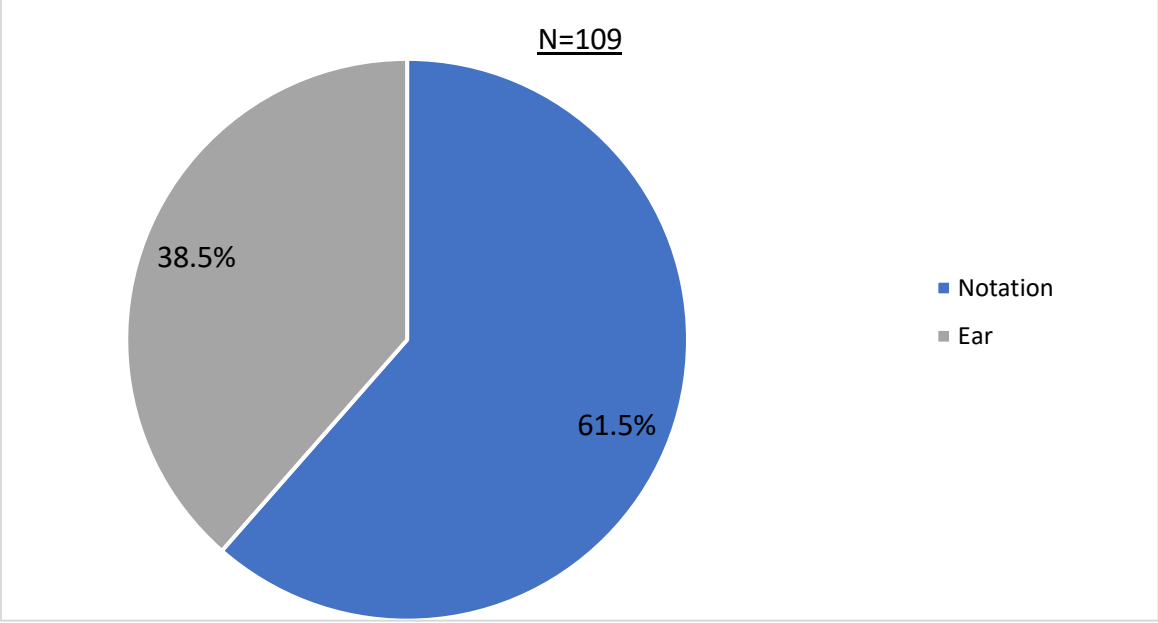


Figure 9: Emphasis of notation- or ear-based learning in lessons

Emphasis of notation- or ear-based learning in lessons

While Figure 7 showcased the presence of learning from notation and by ear in lessons, the data in Figure 9 reaffirmed the steadfastness of notation's position in formal learning environments and pedagogy as 61.5% (n=67) indicated that in comparison to ear-based learning, their lessons had an emphasis on learning with notation. Comparing this finding with the data from Figure 5 (39.7%) illustrated that non-HPME instrumental lessons were more likely than those in HPME to have an emphasis on notation reading. Furthermore, juxtaposing the findings from Figures 7 and 9 with the accounts of musicians from the 1970-90s would result in the conclusion that popular musicians today can no longer be accurately characterised as pure ear-based musicians.

Exploring the issue of notation- and ear-based learning with the interviewees, it was found that the notion of greater emphasis on notation in non-HPME lessons was valid, and Robinson's (2010) depiction of popular music teachers' relationship with notation as a tool for teaching was accurate as well. The number of teachers that taught without written material were minuscule, and most initiate their students learning with notation or incorporated it in various ways and degrees.

Music notation was the primary tool used to introduce new materials by all the interviewees' teachers, except one of Haley's, who did not use notation at all. Additionally, teachers who only taught with notation were those that the interviewees engaged with before their commencement of HPME. Mateo, Eddard, Sarah, Ellie, and Haley all recalled learning to play popular music only from notation before attending university, either from graded examination or transcription books. Haley elaborated that her first drum teacher emphasised the understanding of music notation, and new songs/materials were always learnt from notation. He believed that it was more important to understand the music in this manner, while the auditory learning characteristics of 'learning by ear' were of secondary importance.

HPME instrumental teachers whom the interviewees encountered, generally used notation to introduce new music/exercise/techniques only and had varying degrees of emphasis on learning by ear. Yasmin's teacher always presented new learning materials with notation, sometimes even instructing her to sight-read, but when the material was learnt and familiarised, he encouraged variations, specifically asking her not to play as written. Beyond that, a significant portion of lesson time was devoted to listening to recordings, and he even compiled a repertoire list for her to listen at home with clear instructions to pay attention to the comping patterns, tone projection and to 'copy' the solos. Ellie recounted similar experiences, except there was an emphasis to transcribe the improvised solos of others, rather than just 'copying' them by ear as a method of learning to improvise.

Mateo and Sarah, while primarily taught with notation as well, were not pressured by their teachers to be proficient readers, or to follow the notes strictly. Sarah experienced more

emphasis on using her ears, as her teacher would not slow down when she demonstrated an improvised solo and expected Sarah to keep up. However, her teacher was rigorous when it came to lead sheets that Sarah had to prepare for her performance exams, expecting every detail to be accurately notated. Mateo, while not instructed to do so, was personally determined to ensure that he played the score accurately.

As Haley learnt from multiple HPME drum teachers, she experienced a spectrum of teaching styles, from one who only used notation, to another who was the complete opposite. Between those two were those that primarily focused on ear-based learning with little regard given to notational skills, and those that only used notation as a means to transmit new information (comparable to the teaching styles of teachers of the other interviewees).

From the interviewees' accounts, a clear contrast can be seen between their non-HPME (or beginner) and HPME (or advance) instrumental lessons. While all but one teacher taught new materials with notation, it was only the HPME teachers that emphasised and encouraged their student to employ the use of their ears. This was consistent with the data from Figure 5.

While a majority still experienced an emphasis of learning from notation (especially new materials) overall, the fact that 58.7% reported learning to play by ear in lessons (Figure 7) and 38.5% indicated an emphasis on ear-based learning (Figure 9) signified that informal practices had gained ground in formal environments[90]. However, the comparison of data from Figures 5 and 9 suggested that this was only reflective of HPME instrumental lessons. Be that as it may, this finding can serve as evidence of the efforts of popular music educators and scholars, such as those cited in earlier chapters, to create simulated environments that encouraged popular music-learning and -making practices within formal structures.

[90] This finding contributed to the argument made earlier for the need to observe music learning practices (ear vs notation) distinct from their commonly associated learning contexts (informal vs formal), especially in HPME, as demonstrated by the interviewees' accounts.

Self-Learning

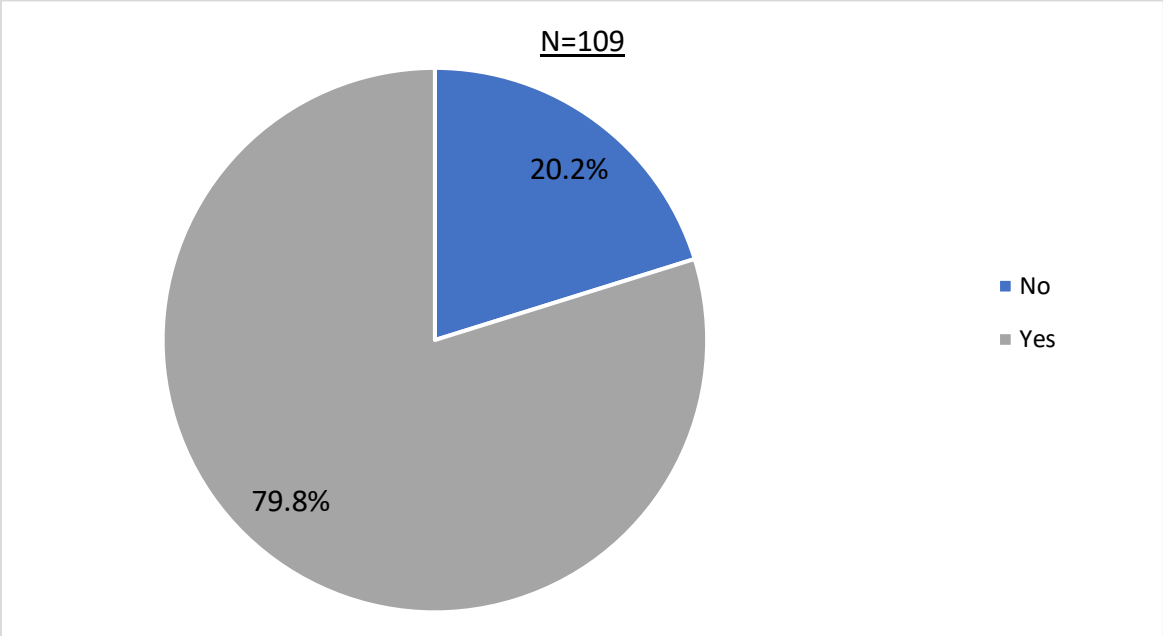


Figure 10: Self-motivation of participants to learn non-lesson-related material whilst undergoing FPML

Self-motivation

Popular musicians (who primarily learnt informally), as discussed briefly earlier, were passionate and self-motivated to expand their knowledge and progress their skills (Green, 2002; Robinson, 2010). Thus, they were self-reliant in their journey to become popular musicians and had complete autonomy to decide what/when/how to learn/practise (this was true for all forms of informal learning, including the IPML described in this study). Current musicians who experienced FPML went through a period of supervised and structured instrumental instruction, and this emerged as an influential factor in their attitudes towards mastering their craft. As illustrated in Figure 10, 20.2% (n=22) of participants reported only working on and practising what was required by their teachers during periods of FPML. Formal learning shifted part of the responsibility of progress (and subsequently some levels of autonomy) from learner to teacher, rendering a lesser need for the learner to be independently motivated. This finding correlated with Lebler and Hodges' (2017) assertion that the cultivation of reliance on a teacher was possibly at the expense of the learner's own development of autonomy.

In the exploration of the link between formal learning and motivation levels, the interview findings revealed that while experiences of decreased motivation only took place during periods of formal learning, it did not mean that their levels of motivations did not fluctuate during those periods.

Before Yasmin started her FPML journey, she had years of WCMT, and during those years, she often self-learnt popular music that she liked. However, after entering HPME, she only focused on what was required or instructed by her teachers/programme. Throughout Haley's years of drum instruction, she only practised as instructed. However, she noted that she developed the motivation to learn other skills/music/techniques in addition to those prescribed by her teachers while she was in HPME.

While Keith's experience with formal learning was classical music in nature, he took on those lessons with the intention to sing and play popular music. He revealed that he was not motivated to practise at all when he had lessons, even though he requested them in the first place, and would reluctantly practise only with parental supervision/intervention. However, after quitting lessons, he found himself regularly picking up the guitar to learn to play and sing songs he liked, by himself. Keith's reduced motivation during the periods of classical training was understandable as he was not getting what he wanted out of those lessons. Once those lessons ended, his passion for singing and playing was reignited.

While it was possible to argue that a majority (79.8%) were still self-motivated to learn additional materials, the 20.2% was notable in this context as self-reliance and autonomy were significant aspects of popular music learning (as characterised by existing literature). The 20.2% represented a population of popular musicians who contradicted those of the informal culture, as they not only possessed a reduced level of passion for their craft but also developed a reliance on external sources (teacher) to monitor and direct their progress.

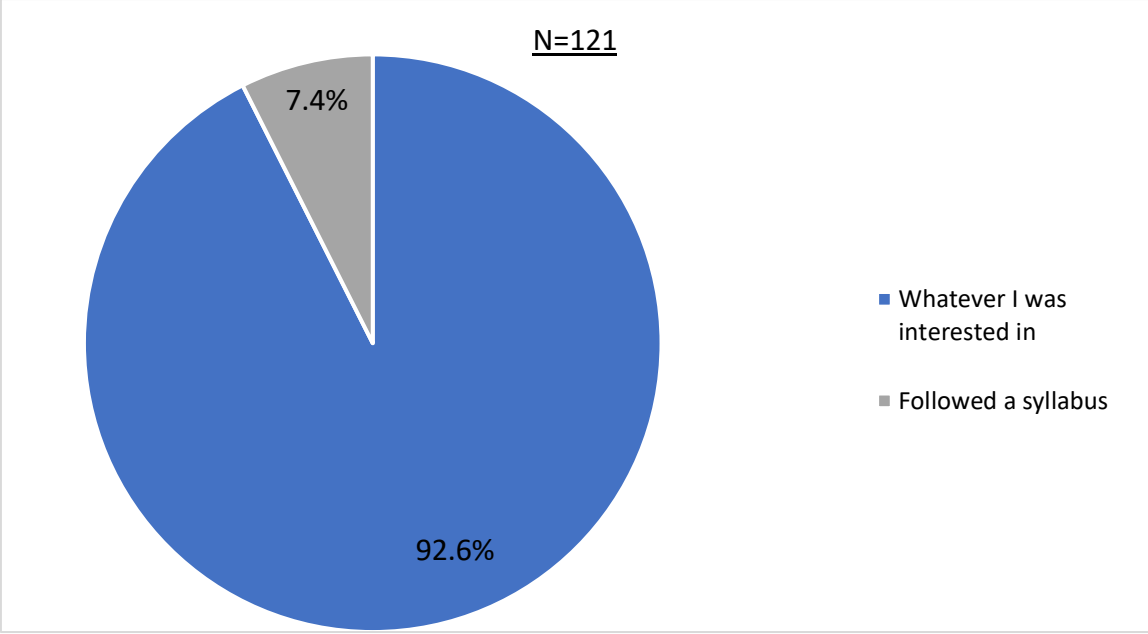


Figure 11: Deciding what to learn during IPML

Deciding what to learn during IPML

When asked what they learnt during periods of IPML, 92.6% of participants reported learning whatever they were interested in at the time, as opposed to following a strict regime or syllabus. This was consistent with Green's (2002) observation that an important characteristic of informal learning was the element of enjoyment (p.104). However, this was not to say that following a syllabus was not enjoyable. For unlike learning with a teacher, self-learning affords the agent with full autonomy to decide what and how to learn. Thus, choosing to follow a syllabus, as opposed to whatever they were interested in at the time, might have brought them enjoyment as well. Therefore, the 7.4% in Figure 11 should be understood within the context of burgeoning FPML provisions and the accessibility to a wide variety of learning materials, including graded examination materials and other instructional content, especially those published by musicians that were idolised.

As demonstrated by the findings in this study, majority of participants had experienced FPML at some point in their musical journey. Thus, it was likely that for some, habits that were cultivated during periods of FPML were retained even after moving on from FPML. However, it was even more likely that current musicians were inclined to follow a syllabus because of the availability of a wide variety of learning materials that catered to their

learning preferences, and the access to knowledge to understand those materials (as evidenced by data in the following enquiry).

While the interviews affirmed the survey findings, it also revealed that there was also an additional layer of urgency or priority to consider. Like all the other interviewees, Sarah and Zayne did submit to their desires and interests, but they primarily operated on a needs-based policy. They compartmentalised things into those that were just for fun/interest and those that needed immediate attention, and prioritised anything that had urgency, such as work-related music or areas in their craft that required the most attention. It may be worth reiterating that Sarah and Zayne are currently professional musicians, thus, they did not always have the privilege to play whatever they wanted, as they needed to prioritise engagements that could sustain their livelihoods.

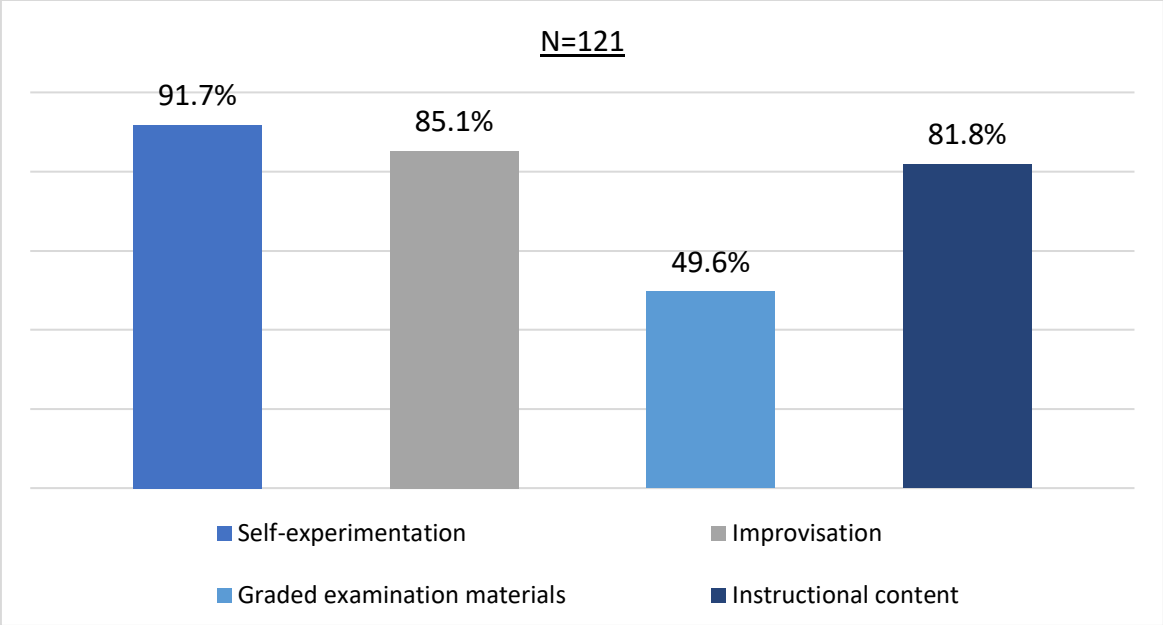


Figure 12: Characterisations of learning activities during IPML

Characterisations of learning activities during IPML

According to the data collected, a significant majority of participants partook in the practice of self-experimentation, improvisation and using instructional content, while just below 50% worked on graded examination materials during periods of IPML. While the ranges and combinations of instructional content used will be expanded upon later in Figure 14, the data that 49.6% of participants worked on and practised graded examination materials,

and 81.8% used instructional content during periods of IPML, were clear evidence to support the earlier notion that accessibility to these learning materials led to the inclination to follow a syllabus as opposed to an unsystematic learning of songs and techniques.

The data on improvisation and self-experimentations were consistent with existing knowledge and the interviews revealed that both elements were often intertwined. The act of self-experimentation manifested itself in many forms that, in one way or another, fell under the topic of playing by ear, techniques and solo improvisations.

Mateo and Eddard (both drummers and from the 'I-F' category) were largely self-taught in their early years, and while Eddard did have friends that showed him some beats and fills, both of them essentially got behind the drums and started experimenting ways to emulate drumbeats that they heard even before knowing the names of the different drum parts. Eddard further elaborated that he experimented and found alternative ways to replicate what he knew he could not play at that time. An example given was learning to play 'Bat Country' by Avenged Sevenfold, where there was a section that had quick double pedal work, which was beyond his abilities at that time. So, in the process of experimenting ways to emulate that deep bass sound without the use of double pedals, he eventually figured that it could be played on the floor tom as it was the second deepest sound that he could identify on the drums.

Ellie and Sarah (both pianists and from the 'F-I' category) divulged that their abilities to play by ear were the result of self-experimentation, of 'poking around' the keyboard/piano until they played the sequence of sounds that they had heard, before or during their periods of WCMT. However, this experimental approach was not limited to just interaction with music for Sarah. It encompassed interactions with musicians as well. As she was a formally trained musician, she found it challenging to communicate her ideas to informal musicians who did not speak the same musical language. She tried many different ways of communication till she figured that the most effective method was to demonstrate and let them pick it up by ear.

Keith, being occupied in developing rock-styled vocal techniques, initially sought out formal vocal training, but eventually abandoned lessons as it was to no avail. He then tried to acquire that vocal technique on his own through a trial-and-error approach, which he succeeded after three years. Beyond vocal techniques, he also taught himself production skills by experimenting and playing around with all the available functions and parameters till he figured out how the programme worked.

The openness to experimentation was the core philosophy that influenced Zayne's approach to music.

> *'That's how I would define experimenting, just trying out new things and if it works, it works, if it doesn't, it doesn't, and you're not really constricted to what you're supposed to do'.*

One example Zayne provided was playing with harmonics on the bass, which was inspired by Victor Wooten; he further explained that a bassist could not play the music alone, as it consisted of harmony and melody as well. Therefore, Zayne experimented, and eventually managed to incorporate chords and melodic phrases on the bass, and from there, wrote songs based on this form of playing (His Prepared Performance submission is an example of this type of song).

He also gave another example of emulating the tabla sound on the bass when he worked on a Malay song called 'Hijau', and the band wanted to revamp the song. The bass parts, in general, were long-held notes that acted as the harmonic foundation of the song. Zayne wanted to try out a more percussive sound and experimented with slapping the bass in a way that imitated the sounds of the tabla, thus giving the music another layer of rhythm.

When it came to improvisations, only Zayne, Sarah and Ellie were forthcoming in their accounts. Zayne explained that his process was to 'fill in the blanks in my own way' and that it was more of a trial-and-error approach. He further revealed that he would see shapes and patterns when soloing, which facilitated the process, in the sense that he would know what could work after a specific note or line. Sarah, on the other hand, grew up with an inclination towards improvisation and experimentation, even when she was not

supposed to (classical music). When she was around nine years of age, about the time she began to be quite fluent playing with her left hand, she started to improvise the exercises or songs from books. She recounted how she disregarded what was written in the book and started playing arpeggios on her right hand when the bass was a full semibreve. In contrast to Zayne and Sarah, Ellie only spent time working on the art of improvisation when required (for assessments), and she followed the methods and systems that her teacher suggested.

Apart from Ellie's position towards working on improvisational skills, this characterisation of current IPML generally did not diverge much from those observed in literature (especially Green, 2002). The only inconsistency was that almost half of the sample worked on graded examination materials during periods of IPML, whereas popular musicians in the past distanced themselves from institutions. This was likely due to popular music examination boards only emerging in the 1990s. In fact, Green's (2002) and Robinson's (2010) studies demonstrated that popular music examinations were becoming increasingly common in the learning histories of popular musicians since the 1990s. Smith (2013a, p.30) too made similar assertions in his study as well,

> *'The syllabi of Rockschool and Trinity Guildhall will not have had a significant influence on the learning of the adult drummers interviewed in this study, since the syllabi have evolved relatively recently. They may well, however, have had and be having an impact on the learning of today's adolescent drummers'.*

However, it was not possible to determine if this discrepancy was due to changes in attitudes, or just purely because popular music exams were only available from the 1990s onwards. The only means to determine the cause of this inconsistency would be to query older popular musicians retrospectively of the likelihood of engaging with those materials if they were available during their time. Unfortunately, this endeavour was beyond the scope of this study.

Musical Practices

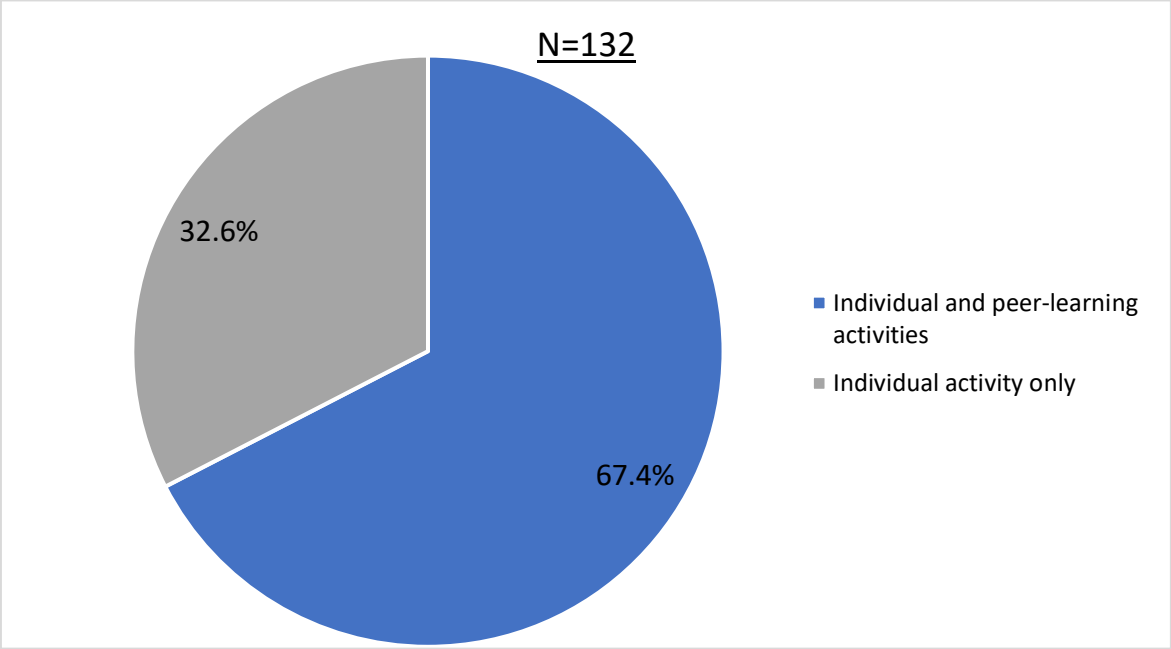


Figure 13: Occurrence of peer-learning activities throughout period of learning

Peer-learning activities

Literature about popular music-making practices always included in one form or another, descriptions of peer-learning activities (PLAs), usually including group music-making, jamming, exchanges of ideas and advice and even general conversation about music. Green (2002, p.97) nuanced this description by asserting that 'learning from each other in pairs and groups, through casual encounters and organised sessions, both aside and from music-making' is a central informal learning practice.

Data collected from the survey indicated that current popular musicians continued to engage in such activities, but there was also a sizeable portion of participants (32.6%) who reported their entire journey thus far as one of solitude (Figure 13). Given the emphasis of peer- and group-based activities in popular music learning culture in literature, this finding was noteworthy, as it signified that a substantial percentage of popular musicians today did not participate in activities that were considered central to popular music-making. Therefore, the music-making practices and habits of the 67.4% and the 32.6% were in stark contrast with each other, and this can contribute to increasing tensions between both

groups of musicians in terms of attitudes and values, for one group was unaccustomed with what Green described as a central practice of popular music making.

While the absence of PLAs will be discussed in the next subchapter, the paragraphs here focused on the characteristics of PLAs, and two themes emerged from the interviews: peer-learning in HPME and during performance engagements. Yasmin, Ellie, Sarah and Haley only began experiencing PLAs in HPME even though they started playing popular music much earlier, suggesting that those whose FPML only took place outside HPME were more likely to experience popular music instrumental learning as an individual activity. At the same time, it insinuated that HPME environments were conducive to PLAs; Mateo and Eddard, who engaged in PLAs very early on, reported significant increases in engagements with a variety of PLAs in HPME as well. These activities included those identified by Green (2002), such as band rehearsals, jamming, casual encounters and observations, which took place as part of programme or privately among peers. The occurrences of these activities were the consequences of HPME providers striving to create simulated environments that stimulated popular music practices among its students within formal structures. However, that did not mean that everyone was disposed to such activities. Haley revealed that despite being in the HPME environment, she preferred to work in isolation and did not enjoy playing in a band.

In addition to the PLAs described above, the two professional musicians in this study, Sarah and Zayne, also described instances in which PLAs took place in performance settings. Their accounts supported the assertion by Robinson (2010) that popular musicians perceived performing live with, or in the presence of others to be highly beneficial in their developments.

While Zayne did not receive any formal training on popular music-making, he credited the pub music scene for his education, as that was where he learnt and honed his craft. One of the first gigs that he played, when he was about 17 years old, was at a blues club where all the seasoned musicians hung out and jammed. As he was on stage playing a cheap, out of tune bass, he saw an older man cringing in the audience. Zayne was puzzled, and the older man signalled to him that his E string was flat, so Zayne tried to tune it but was not

successful. The older gentleman then got frustrated and walked right on stage, while the band was still playing, to tune the bass. After the set finished, he came up to Zayne and said:

> *'If you want to be a musician, the first thing you have to do is tune your instrument, no matter how good you are, if your instrument is not in tune there is no point'.*

He went on to ask how Zayne tuned his bass, to which Zayne responded that he used his ear, which triggered the older guy to rejoinder 'if you do not have perfect pitch, use the tuner, do not try to be smart'. That was Zayne's first lesson in the 'school of hard knocks', but Zayne clarified that though the musicians may be blunt and sarcastic, they were very willing to teach. It was also during this time that Zayne learnt the concept of 'sacred' songs that must never deviate from its original state.

Another benefit from his experiences with pub gigs was that it taught him to be alert and adaptable at all times. He explained that the singer that he primarily worked with had never set a song list, and usually informed the band of the next song to play just before playing it. However, there were also times when the singer just began the song, and Zayne had to quickly figure out if he knew the song and how to play it. If it was a song that he was not familiar with, he had to use his ears to pick up the groove and chord progression instantaneously.

After Sarah completed her degree, she was increasingly acquainted with other musicians in the industry as she joined bands, many of which comprised of informal musicians whose modus operandi was foreign to her. In the first band that she joined, she learnt to play entirely by ear and from memory. In the second band, she observed and learnt how to navigate the complexities of relationship dynamics in a band setting, and in her third and current band, she learnt to be confident about her ideas, and how to communicate with musicians from a variety of backgrounds. In all three bands, Sarah learnt by observing and engaging with her fellow bandmates.

Through the interviews, it was evident that PLAs can take place anytime (From the early stages in the musical journey to after embarking on a professional career) and anywhere (Both formal and informal environments). This meant that there were rampant opportunities to participate in PLAs, which made the 32.6% who reported their entire musical journey thus far as one of solitude even more significant.

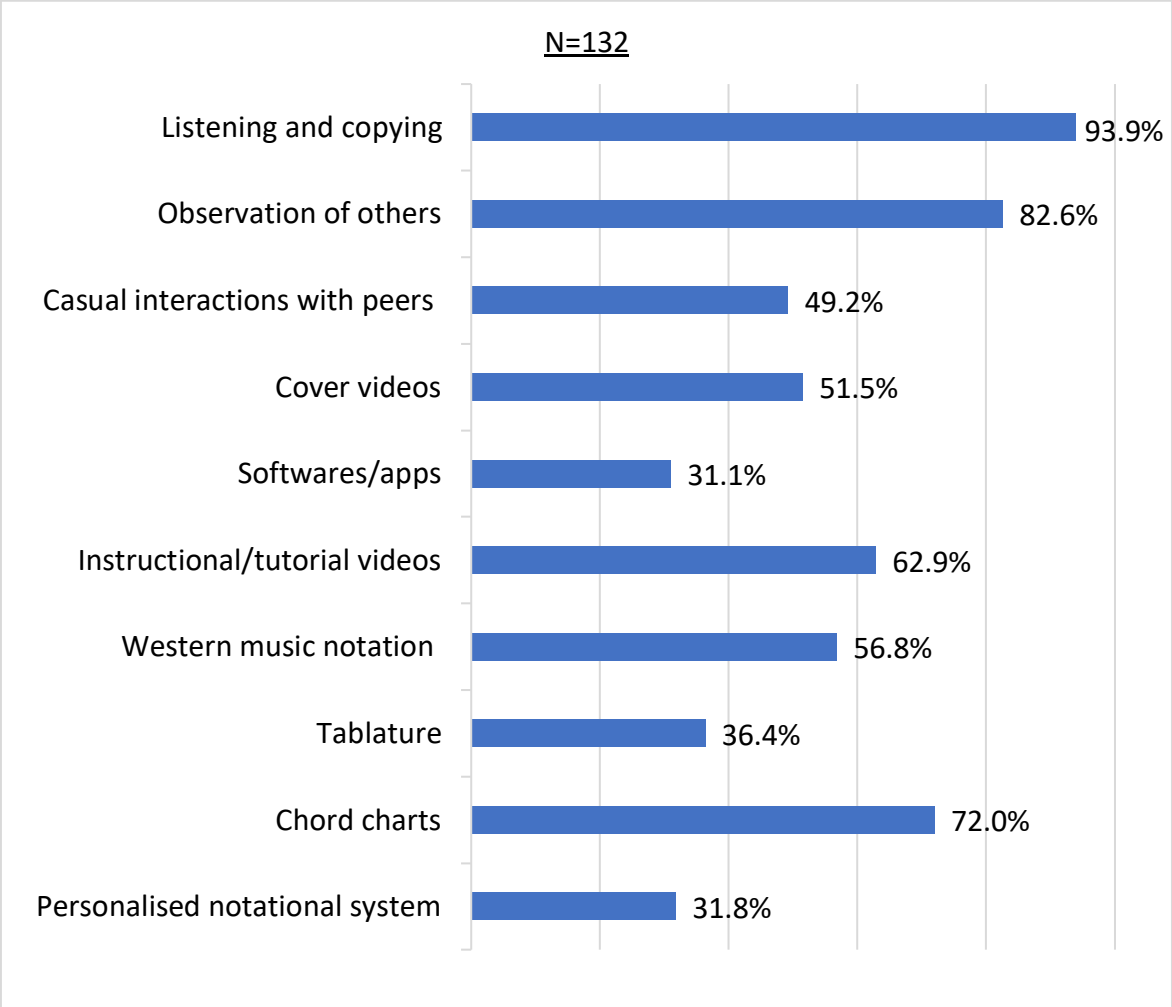


Figure 14: Tools and practices engaged with

Tools and practices

PRACTICES

Overall, the tools and practices that current musicians engaged with bore resemblances with their predecessors', as listening and copying (93.9%) and learning through observation of others (82.6%) remained central and common across the board. However, less than half of the participants reported casual interactions with peers as an avenue of learning (49.2%).

Observed with the findings from Figure 13 that many musicians only engaged in PLAs after commencing their HPME, it implied that the PLAs that the participants engaged in usually took place in organised sessions and/or were passive interactions through observation rather than active encounters.

TECHNOLOGICAL TOOLS

The area most obviously different from the past was the instructional and/or learning tools and avenues made possible by recent technological advancements. Musicians in the past did not use these tools simply because they did not exist or were not easily accessible at the time, but these tools have an undeniable presence in the learning practices of current popular musicians; 62.9% reported the use of instructional/tutorial videos, 51.5% referred to cover videos of songs they wanted to learn, and 31.1% took advantage of various music software and applications.

Exploring the topic of the use and attraction of instructional and/or learning tools with the interviewees, it was revealed that the tool most used for instructional/tutorial and cover videos was YouTube. The attraction of YouTube as a tool for music learning was that it was a platform that hosted a wide variety of videos that could be used in ways that catered to their individual learning needs and preferences. Ellie, Haley and Mateo often relied on tutorial videos in their learning processes as the presenter in the videos broke things down and provided guidance on how to achieve the song/technique/skill presented. Mateo often watched multiple drum covers of the same song for inspirations, observing how others interpreted the song and/or played a particular fill in, for this informed him of alternate ways/grooves/fills that he could apply to his own rendition. At the same time, watching covers often made challenging sections of songs seem less daunting, as he could visually grasp how it was played. Eddard's use of YouTube was primarily for technique or instructional tutorials and elaborated that when wanting to learn something specifically (double strokes for example), he would first pick a random video, and if the instructions were not clear, he would move on to the next until he found one that made sense to him.

Keith too frequented YouTube for tutorial videos, and the platform was also where he discovered video uploads of people singing and playing instruments on the now-defunct

web-based virtual world called 'Meetoto' where users showed off their talents with its 'KTV Stage' feature and had interactions with other users that listened to their performances. As he could not play any instruments then, he would search for minus-one tracks on YouTube to sing along with while performing on the 'KTV Stage'. Essentially, the 'KTV Stage' was a form of virtual performance avenue that connected performers with audiences, similar to the 'live' feature on numerous social media platforms that many musicians and performers have taken advantage of in recent years.

As evidenced by the interview findings, the common denominator among the learning and performing tools made available by technological advancements that were used by today's musicians was accessibility. YouTube and most online applications and services were mostly free of charge and were all within reach of anyone that wanted to access them. Therefore, popular musicians included the use of these tools to facilitate their learning processes. A similar observation was also made by Smith (2013a, p.52),

> *'The increased availability and sophistication of the Internet is an important feature in expanding the ways in and extent to which people are able to engage with different modes of learning – drummers can now receive tuition, watch concerts and listen to music all for virtually no cost; drummers of all ages are embracing this technology'.*

NOTATION

Another frequently used learning tool was music notation. Of the various types of notations used, chord charts were the most common among the sample (72%), followed by conventional notation (56.8%), then tablature (36.4%), and lastly personalised notational systems (31.8%). This finding was not monumentally different from the observations in Green's (2002) book and Robinson's (2010) thesis, but when historically contextualised, it contributed to the assertion that the learning culture of popular musicians had evolved, as the use of notation had increased. Simultaneously, the finding suggested that popular music learning was no longer just an aural tradition, and that increasing numbers of popular musicians are musically literate. The interview findings revealed this notion to be true, as notation was frequently used to facilitate their song-learning practices.

Starting off by listening to the music, then identifying and writing down the chords, before moving on to difficult unison lines or hits (if any), Yasmin essentially focused on transcribing the harmonic, rhythmic and melodic details before making attempts to play the song[91]. Similarly, Haley always listened to the song first to familiarise herself with the structural details. From there, she transcribed the hits and the grooves. Only after this has been completed, would she get behind the drums and play her transcription. In terms of exercises, there was a preference to learn with notation, including video tutorials where the presenter demonstrated without visual aids; Haley visualised the rhythm and counting in her head. She preferred to comprehend the kinds of subdivisions and rhythms that were in the exercise, rather than just play what she had heard. However, if the exercise or song were simple, she would just play it, as it was possible to 'figure out the rhythm' eventually.

Sarah too transcribed abundantly, but there was an additional motivation behind her efforts. Even though she had been 'poking around' on her own since she was a young child, her primary reliance was still on notation, so she wanted to improve her listening skills. Therefore, Sarah saw transcribing music as the solution, and would deliberately pick songs that had no notation available online for her university exams, forcing herself to transcribe the song as examinations required scores or lead sheets to be submitted. Beyond meeting examination requirements, Sarah revealed that she always attempted to learn by ear first and turn to notation only when needed, such as transcribing when encountering a challenging section of the song. However, she clarified that in cases like this, she did not bother to notate 'prettily', or accurately. If it were a simple song, or one that had room for improvisation, it would only be learnt by ear. As for songs/parts that Sarah did notate, she continued to refer to the notation if the song was learnt just for fun, as having the notation there served as a security blanket, even if it '[gets] to a point where it is like "I got this", it's always nice to have it in front'. However, for performances, she tried her best to internalise and memorise the songs.

While Ellie was encouraged continuously by her teachers to transcribe, she only did so occasionally, and it was not a core element in her learning practice. Similarly, notation did

[91] Sometimes she would just play by ear instead of writing it down due to laziness.

not play a significant role as well, as she preferred to watch tutorial videos when she faced difficulty in accomplishing a song solely by ear. Only when all else failed, did she set out to look for the notation online. Keith and Eddard had similar processes as well, relying entirely on their ears to learn a song, and referring to notation only as a last resort, either scouring for it online, or made attempts to transcribe.

Before engaging with standard notation as a means to supplement the deficiencies of his ears, Eddard developed his own personalised notational system to help him remember the combination of sounds heard in the song; effectively transcribing the music and using the transcription as a memory aid, which was to be discarded once the song was internalised. Zayne, a complete ear-playing musician, developed his own personalised notational system as well solely to function as a memory aid. He explained that the process was to listen to the song repetitively to internalise the melody and structure of the song before writing it down with his unique system that was best described as a linear map of the music.

Working in comparable ways to Eddard and Zayne, Mateo listened to the song repetitively for internalisation as well. However, rather than try to memorise the song on the onset, he transcribed it, essentially using standard notation as a memory aid; a reference during the process of 'getting' the song. Once the song had been 'gotten', Mateo no longer played as written, but embellished his own rendition. However, in times when the material was too difficult to notate, he reverted to his previous mode of 'getting' the song; copy the sounds by ear.

All the interviewees currently used one form of notation or another, but regardless of the type of notation, its functions in their practices were alike; a tool to document the sounds they heard and to serve as a memory aid. However, one common thread among all the interviewees was that notation was always used in conjunction to ear-based practices, predominantly operating as a learning aid to various degrees, either as the primary means to learn/internalise the song (Yasmin, Haley and Mateo), or to supplement the deficiencies of their listening skills (Sarah, Ellie, Eddard, Keith and Zayne). While the use of notation was common practice among popular musicians now, its significance in their learning practices varied; some relied on notation more than others.

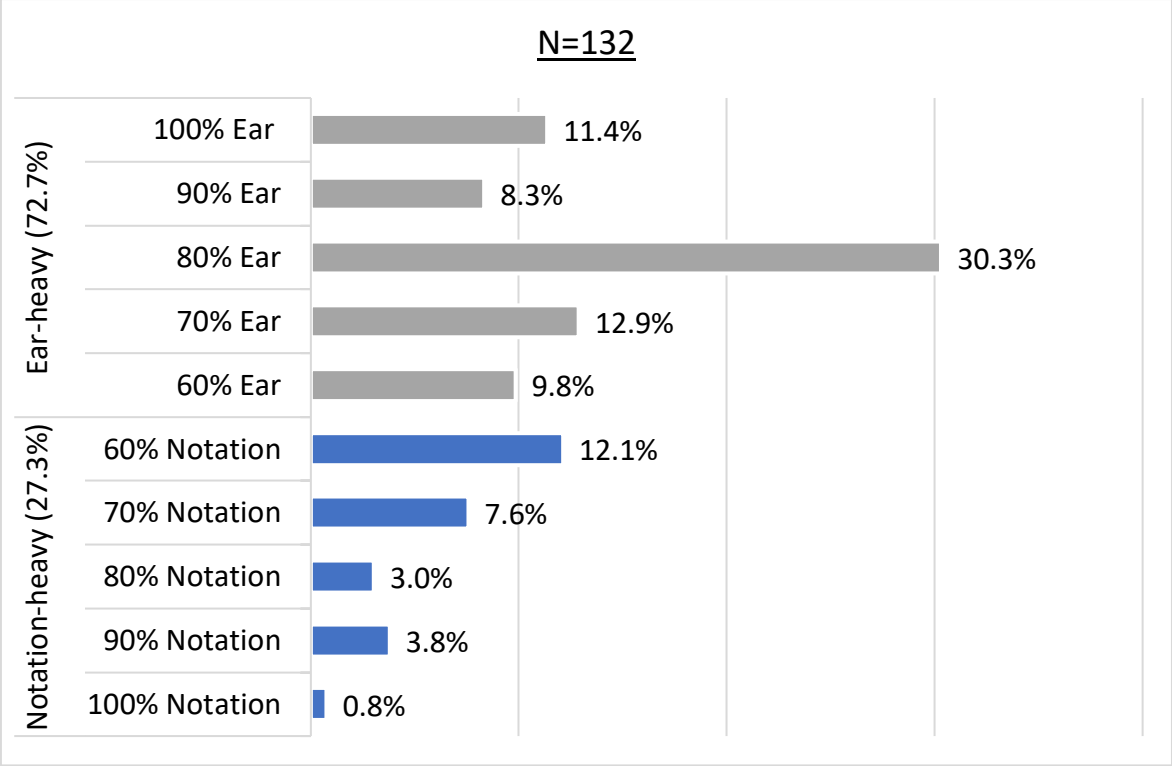


Figure 15: Participants' reliance on notation- and ear-based practices in their own music learning process outside of lessons

Reliance on notation- and ear-based practices

As can be seen in Figure 15, 27.3% reported relying on notation more than their ears. Scrutinising this finding with Green's (2002, p.69) assertion, that 'notation was very much secondary to learning by listening', demonstrated a clear contrast between the learning culture of past and present popular musicians; what was once secondary was now considered primary for some. Furthermore, the fact that the community now also consisted of popular musicians who were notation-reliant highlighted the disparities that exists within today's popular music-making practices.

This contrast could be attributed to the burgeoning field of FPML, and in extension HPME, as more and more individuals turn to FPML to acquire/accumulate skills/knowledge of popular music, and thus, enculturated the practices and values exposed to them in those environments. However, 72.7% reported relying on ears more than notation, and considering that 97% of the sample had some form of FPML, it suggested that formal learning was a substantial influence only in the musicians' adoption of notational practices,

but not on their reliance on notation. However, further examination later on in Figure 21 demonstrated that FPML was indeed an influential factor in developing reliance on notation.

Variety in reliance was observable among the interviewees; Keith, Ellie, Sarah, Zayne and Eddard used notation (standard or otherwise) only as a last resort in their practices (acquired notation or self-transcribed), while it was the first port of call for Haley, Yasmin and Mateo to learn and internalise musical materials [92]. These descriptions were formulated on the interviewees' current learning processes that evolved with accumulating experiences. In order to understand the development of their learning processes and reliance on notation and ear-based skills, it was useful to examine how their journeys began (Figure 16).

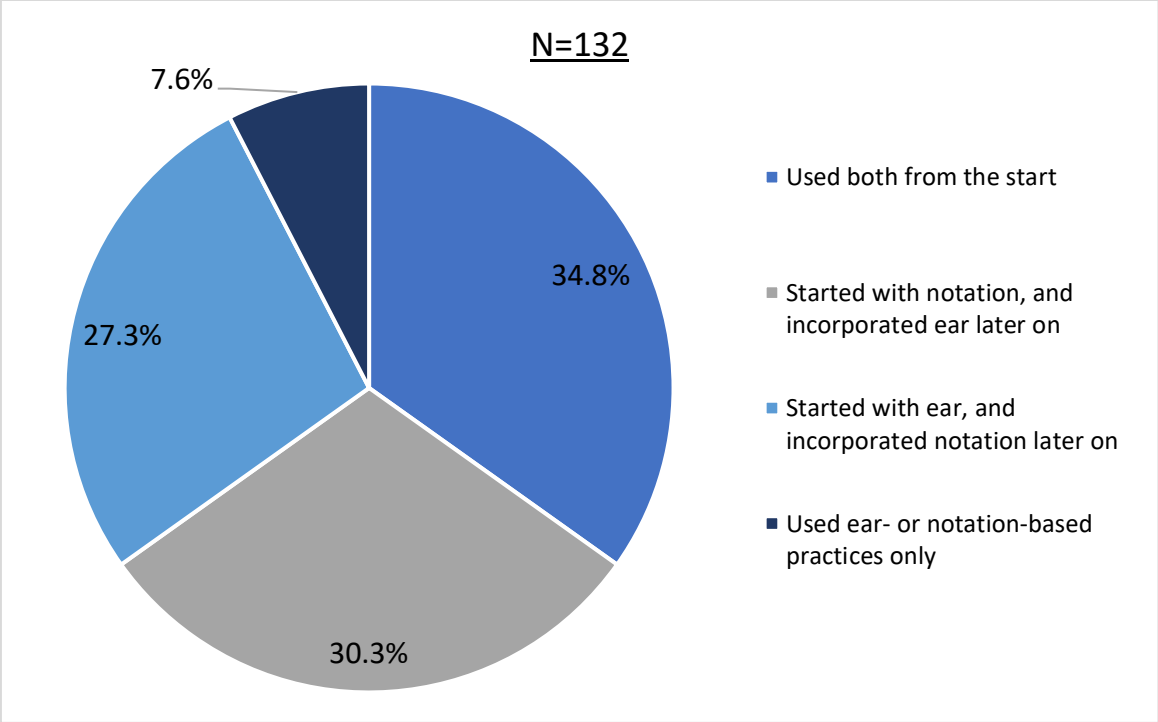


Figure 16: Usage pattern of notation- and ear-based practices during self-learning and/or self-practice

[92] Even though they had to rely on their listening skills to identify the sounds to notate, the actual learning and internalisation of the musical material was through notational means.

Usage pattern of notation- and ear-based practices

30.3% of the participants indicated that their learning of popular music was initiated with notation, while 34.8% started with notation alongside their ears (Figure 16). This meant that a majority (65.1%) of participants first learnt popular music in ways that not only deviated from popular music's traditional method of song 'getting', but also contrasted with their peers. This finding further propagated the argument of the evolving culture of popular music-learning and -making as it demonstrated that not only was the use of notation increased, but a substantial segment of musicians began their popular music-making journey with notation (solely or with ear). As will be demonstrated with the interview findings below, the issue of 'initial' practice was a crucial aspect to understand the disparities in the usage and reliance on notation- and ear-based practices.

Yasmin first started to play popular music from transcription books at 12 years of age as she could read standard notation. She began by listening to the song first, then referred to the book to play as written. However, by 14-15 years old, Yasmin was more reliant on her ears to pick out the nuanced details from the song rather than blindly follow the notes in the book. This process of learning a song continued until the time she entered university, where she abandoned those transcription books and started transcribing on her own.

Haley initially learnt everything from notation and developed a strong reliance on, and usage of, music notation to a point where she 'don't even listen to the music'. Even though she eventually employed and relied on her listening skills to some degree, her dependency on notation was already established, and she would instinctively notate what she learnt by ear. The only exception was when the song was not technically and/or musically challenging. However, Haley added that in cases like this, she refrained from being too adventurous in the performance and would play it safe and simple instead.

Ellie only learnt popular songs from the book (notation) that her classical piano teacher obtained for her initially, but once it was realised that she could play songs from the radio just by using her ears, she stopped using the book and solely learnt to play popular music by ear. Sarah started copying sounds from a young age and continued trying to recreate the sounds she heard from songs on the piano on her own while undergoing WCMT. At the

same time, she learnt to play notated popular music from her WCMT piano teacher, and transcription books. Mateo and Eddard's initial learning processes did not diverge too much from their current ones, and the only exception was the eventual use of notation, while Keith and Zayne's remained largely the same.

The interviewees' initial practices played a role in their current use and reliance on notation/ear, and this was most obvious in those whose earliest instances of learning popular music was by 'copying' the sounds they heard, namely Eddard, Keith and Zayne. Even though they eventually incorporated notation into their practices, their learning habits had been established, so their reliance on any written form of music served specific and limited purposes. Even Mateo who found notation to be integral to his practice discarded it the moment he internalised the material. The influence of initial practices on current practices was similarly observed in Yasmin and Haley's experiences. Their earliest instances of learning popular music were accomplished by reading notes off a score, and they continued to rely heavily on notation for the learning, internalisation and observation of music, even though they eventually incorporated ear-based practices. Ellie and Sarah too displayed current practices that reflected their learning histories. Both of them occasionally self-learnt music they liked by ear when they underwent WCMT. Though both of them were musically literate, for different reasons presently only use notation when needed.

As demonstrated above, 'initial' practice was a highly influential factor in determining current usage and reliance on notation- and ear-based practices. Once a music-learning and -making practice had been established, it becomes a cultivated habit that was difficult to break. This finding correlated with Jones' (2014) study. Therefore, if this theory was applied to the data in Figure 16, the 30.3% becomes of paramount significance to popular music culture, as it meant that a notable segment of popular musicians either are, or will become, notation-reliant. Incidentally, the data in Figure 15 supported this claim, for 27.3% of participants were notation-reliant. Ultimately, this finding exposed the impacts of initial interactions with popular music learning on the practice characteristics of popular musicians.

Summary

While a majority of participants' learning histories included both FPML and IPML, there were a number of them whose entire popular music learning journey only took place in formal environments, and as explained earlier, this number might have exceeded those only with informal experiences. Beyond that, while IPML was widely common among the sample, it was overshadowed by FPML. The dominant presence of FPML in recent popular music learning culture was arguably the most significant finding in this study that contrasted accounts found in literature (especially in the 1970s). However, when examined along the continuum of the evolving culture of popular music learning, the current dominance of FPML falls within the boundaries of its trajectory.

Examination of the sample's peripheral details exposed the changes in today's popular musicians' experiences with Western classical music, sonic properties of current popular music and instrumental roles. Parents/guardians and age emerged as deciding factors behind engagements with WCMT, and though sustained periods of WCMT were common, sentiments towards them remained mostly negative. While this study's findings of WCMT engagements coincided with that of Green's (2002), in that lessons generally occurred at a young age, and sentiments towards those lessons were largely negative, it found that unlike the past, sustained periods of WCMT among current popular musicians were regular. In addition to that, new connections were drawn between popular musicians' engagement with WCMT and parental/guardian involvement.

The domination of the piano/keyboard among the sample demonstrated a shift in popular music instruments' hierarchy (and subsequently sonic properties), and the notable levels of PWCMT among the sample differed with accounts from the 1970-80s. Beyond that, PWCMT was not just a potential influential variable of popular musicians' choice of instruments and the experiences of FPML, but also the commencement of FPML before IPML (if any). Therefore, WCMT indirectly played a role in creating disturbances within popular music-learning and -making culture.

While more than half of those that experienced FPML reported it as the only music learning method they were aware of, for some, it was in regard to becoming a professional musician, and the musical developments that could not be achieved with one's own efforts. This facilitative effect of FPML as commented by participants in this study stroke a chord with those from the 1990s.

The heavy presence of FPML was also observed in the form of engagement with HPME, reiterating the argument of the disparities between past and current musicians' experiences with institutionalised learning; from one of categorical rejection to one that was viewed as a path towards a career as a professional musician.

The acquisition and accumulation of music theory knowledge, and the positive attitudes towards it, while in contrast with earlier accounts, was in line with the trajectory projected by the learning culture evolution; possibly the result of increased engagements with FPML and HPME as there was a reported hegemony of theoretical understanding, analysis and observation of music in HPME. However, such attitudes also conflicted with those whose musical developments were more aligned with popular music's informal culture. While there was a perceived balance between creativity and technicality in HPME overall, it was noted that emphases on technical proficiencies not only enculturated students to favour displays of technical proficiencies, but also contributed to the loss of an individual sound. Though preferring more value assigned to creativity, there was an awareness of the challenges of quantifying creativity. In terms of notation- or ear-based emphases, a majority observed a heavier emphasis on ear-based practices in HPME. However, musical backgrounds (engagement patterns with formal and informal learning) yielded influences in such perceptions and emerged as a potential factor to cause contradictions in values and attitudes. Furthermore, regardless of the perceived emphases, there were elements within HPME programmes that encouraged the development of both notation- and ear-based skills.

Zooming into instrumental lessons, the characterisation by participants also showcased areas in which the experiences of popular music-learning and -making today differed from those before the 1990s. Not all experienced the enthusiasm and enjoyment that usually

came with autonomy in the learning process, especially if the learning took place with a teacher who was steadfast in a pedagogic model that was incompatible with the learner's preferences. Furthermore, those with FPML backgrounds experienced disciplined learning methods, as opposed to the 'haphazard' model described by past musicians. Subsequently, this played a role in learners' self-motivation, as they cultivated the habit of relying on external sources in their musical development, and also displayed a comparatively reduced level of passion for their crafts.

While improvisation was integral to past popular musicians' practices, it was not always a core element in FPML. When it was taught, it usually took place only after certain levels of proficiencies had been attained, such as HPME instrumental lessons. However, it's absence in FPML did not have much influence on their interests in improvisation. On the other hand, those taught to improvise in lessons revealed that teaching methods ranged from methodical to conceptual approaches.

Lastly, most of them were not only taught to play from notation but were also exposed to an emphasis to learn with notation over ear, contrasting past accounts about the centrality of learning by ear in popular music, and this was especially true for non-HPME instrumental lessons. Instrumental teachers in HPME, on the other hand, primarily used notation only as one of the tools to introduce new materials, indicating the increased induction of informal practices into formal environments.

Current IPML, contrastingly, did not digress much from those articulated in literature. The enjoyment that derived from the autonomy in the learning process was still central (working musicians also operated on a needs-based policy), self-experimentation (in music practices and social engagements) and improvisation remained core activities, and the use of instructional content was still common. The main transgression observed in the current landscape of IPML was the self-learning of graded examination materials, which was possibly due to the exams only being available since the 1990s.

Tools and practices engaged with by past and present popular musicians showed areas of similarities and disparities. Peer-learning activities, characterised as a core practice in

popular music-learning and making in literature, were no longer experienced by all popular musicians today. Furthermore, these activities generally took place within organised sessions and/or through passive interactions, rather than casual encounters and/or active interactions. There was also evidence to suggest that HPME environments and performance settings were conducive to PLAs.

In addition to that, technological advancements prompted the most significant change in the landscape of popular music-learning and -making practices, as there was wide use of tools that were not available in the past: the most prominent being instructional and cover videos found online (YouTube).

While listening and copying, and learning through observation remained central practices, the increased engagement with, and reliance on the various forms of notation demonstrated that popular music learning culture could no longer be characterised as an aural tradition, as notation was no longer always used as a supplement to ear-based learning only. While notation was mostly used as a form of memory aid and as a supplement to deficiencies in ear-based skills, some musicians used notation as their primary tool to internalise new materials/songs. However, levels of reliance on notation varied and were depended on the musician's initial engagement with ear- and notation-based practices.

In summary, the core attitude of independence from institutions could no longer be observed as there were significant engagements with FPML, especially HPME, and this altered the landscape of current popular music learning culture. While the learning culture was still ear-centric, it was no longer purely an aural tradition, for current musicians had incorporated the use of multiple notational systems and tools made available by technological advancements in various ways and extents.

RQ2: To what extent can diversity in musical practices be observed in the current popular musician landscape?

This subchapter reports and discusses findings concerning the diversity that was observed among the various context categories, to examine if routes of learning played a role in the engagement of musical practices. It is to be understood that only observed discrepancies were scrutinised, and that findings reported in the previous subchapter but omitted here, were considered representative overall. Findings are organised into one subsection:

Musical Practices

Concentrates on the differences in musical practices and associated matters among the different routes of learning, the changes in practices that resulted from the transition from FPML to IPML and vice versa, and the differences in the experience of transitioning from one mode of learning to another.

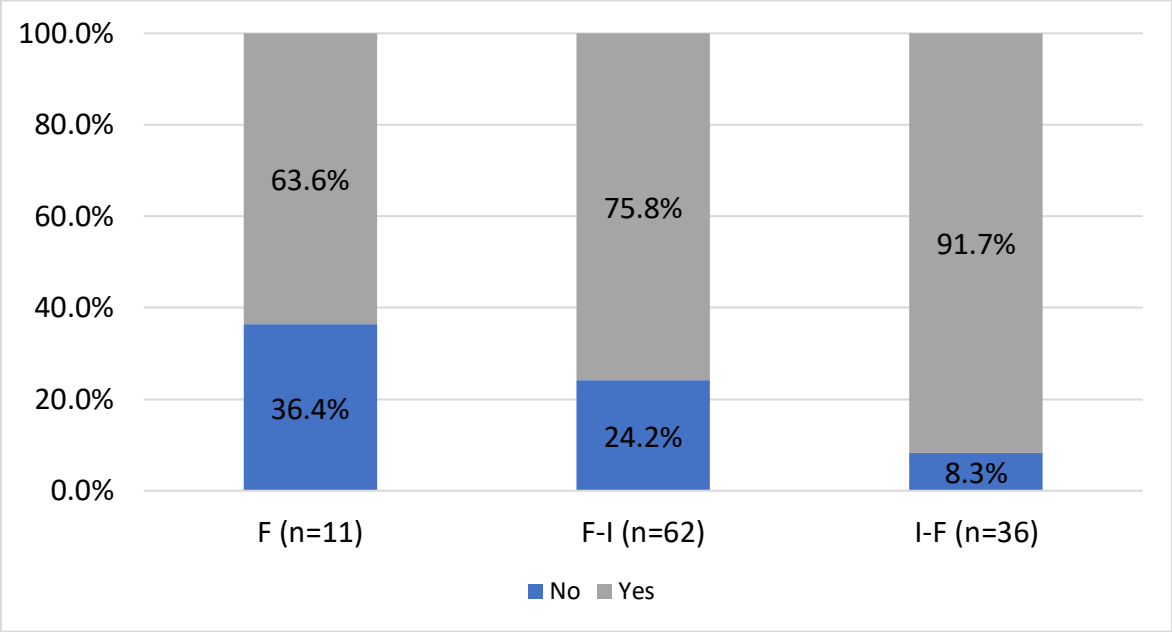


Figure 17: Self-motivation of participants with FPML to learn non-lesson-related material according to context categories

Self-motivation

While the previous subchapter asserted that 20.2% of participants that had FPML lacked self-motivation to learn additional non-lesson material (Figure 10), investigating that finding further offered additional insights that facilitated this study's understanding of the subject. As can be seen in Figure 17, majority of the 20.2% derived from categories where participants reported commencing their popular music learning journey within formal contexts, namely the 'F' (36.4%) and 'F-I' (24.2%) categories. This finding suggested those that began with self-learning were more inclined to learn additional materials on their own during periods of FPML as opposed to their counterparts with only/initial formal experiences. Yasmin and Haley's accounts (both from the 'F' category) confirmed this inference. Both reported periods of reduced motivation to spend time on non-lesson materials during periods of FPML.

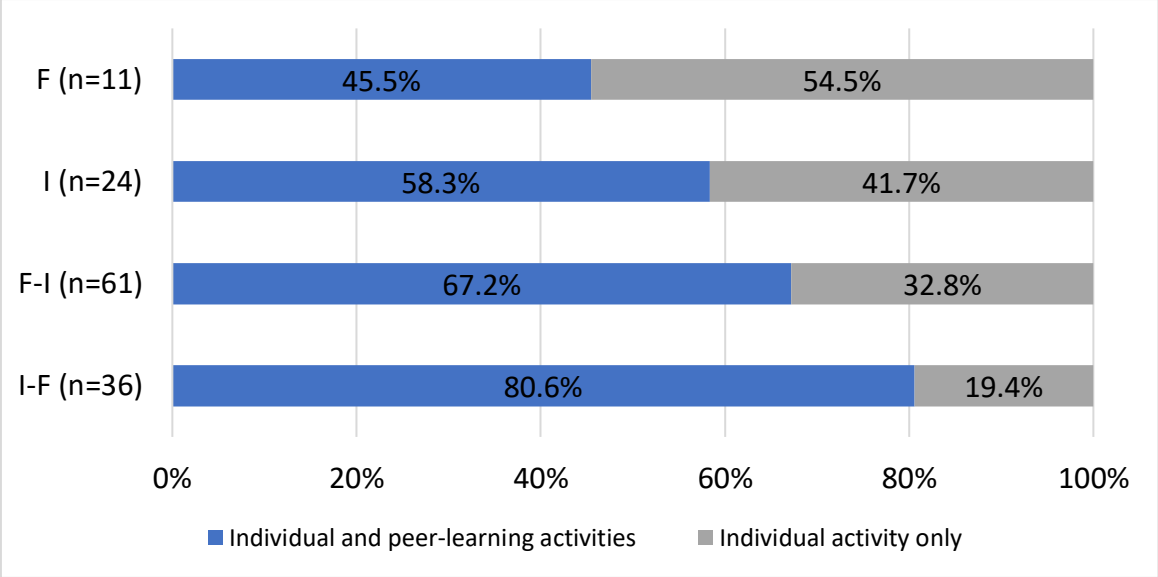


Figure 18: Occurrence of peer-learning activities throughout period of learning according to context categories

Peer-learning activities

Earlier in Figure 13, it was discussed that a portion of popular musicians did not engage in what was considered a central element in popular music-making; peer-learning activities (PLAs). Logic dictated that these reports of no engagements with PLAs should primarily originate from 'formal' categories as lessons were usually one-to-one. However, the 'F' category data in Figure 18 invalidated this notion as 45.5% reported engagements with PLAs. Furthermore, interview findings discussed earlier in Figure 13 demonstrated that though non-HPME FPML engagements were primarily solitary endeavours, HPME environments were breeding grounds for PLAs (as part of the programmes or not), thus, disproving the speculation that all forms of FPML only comprised of individual activities.

HPME AND PLAS

To further explore the relationship between FPML and PLAs in HPME, the data from Figures 4 and 18 were juxtaposed, and it revealed that while 100% of participants in the 'F' category had engaged with HPME, only 45.5% participated in PLAs. Understanding this finding with the discussion above signified that while HPME environments facilitated occurrences of PLAs, engagements with HPME did not necessarily translate into engagements with PLAs, especially for musicians of the 'F' category. In fact, there were indications of aversion towards PLAs from participants in this category; Haley only partook in PLAs when necessary,

and preferred individual activities. Thus, there were evidence to suggest that though exclusively 'formal' popular musicians were more likely to experience PLAs if they engage with HPME, it did not mean that they did.

Doing a similar comparison for the categories that encompassed periods of FPML showed that 90% (F-I) and 97.1% (I-F) engaged with HPME, and 67.2% (F-I) and 80.6% (I-F) engaged in PLAs. Though the extent of the influence of IPML on the combination categories (F-I and I-F) could not be determined, the fact that the 'I-F' category reported the highest percentage (80.6%), followed by 'F-I' (67.2%), and finally 'F' (45.5%), implied that there were correlations between IPML and the likelihood of engaging in PLAs (within HPME or beyond), which included the engagement sequence of FPML and IPML.

Therefore, while the findings about FPML and PLAs in HPME demonstrated that FPML was not a definite factor for the lack of PLAs, findings here implied that those who only engaged with FPML were least likely to engage in PLAs throughout their musical journeys.

'I' CATEGORY AND PLAS

Looking beyond the relationships between FPML and PLA, the only category without FPML was the 'I' category, and the data was surprising; 41.7% reported no engagements with PLAs. Even when considering that 19 out of 24 in this group did have eventual formal training (HPME), it was stated clearly in that segment of the survey that enquiries were strictly concerning their IPML experiences. Thus, this study perceived their characterisations as reflective only of their pre-HPME periods. The 41.7% contradicted past accounts of informal learning (though both interviewees from the 'I' category reported regular engagements with PLAs), and further investigations are necessary to either determine, the factors behind this shift, or the validity of the data, as 19 participants did not characterise their entire learning experiences accurately.

LEARNING ROUTES

Examining the interview accounts exposed a pattern among the interviewees that confirmed the earlier notion of the impact of engagement sequence with FPML and IPML;

those who began with FPML (F and F-I) did not engage in PLAs until much later in their journeys, while those who began with IPML (I and I-F) engaged with PLAs very early on. All the interviewees that had PWCMT and proceeded to FPML (F and F-I) only began participating in PLAs after engaging with HPME. Yasmin, Ellie, Haley and Sarah proceeded to encounter FPML after periods of PWCMT. Their FPML began when their classical piano teachers taught them to play popular songs, but at the same time, they were learning to play popular songs by ear and/or notation on their own as well (except Haley[93]). Throughout this period (pre-HPME), their learning of popular music were purely individual endeavours.

Conversely, those that began with IPML (I and I-F) had high engagements with PLAs from the beginning. Eddard, Mateo, Keith and Zayne[94] started their journeys in the informal realms, and they reported rich experiences with PLAs the moment they embarked on their journeys. Eddard and Mateo were both exposed to the drums and group music-making in church, where they also had regular jam sessions with friends. Since aspiring to sing, Keith regularly collaborated with friends to play and perform music. Before Zayne worked as a pub musician, he revealed that throughout the years, his learning process encompassed many moments of peer advice. When facing a struggle with something he was attempting to learn, Zayne did not hesitate to seek help from friends (formally trained or not). Also, many bassists he befriended in the pub scene had tried to teach him notation reading, though it was to no avail (he developed his own personalised notational system instead).

Therefore, in addition to the finding that popular musicians with sole engagements with FPML were least likely to engage in PLAs throughout their musical journeys, the interview findings revealed that initial engagements with FPML might delay engagements with PLAs as well.

[93] Haley's PWCMT was on the piano while her FPML was on the drums, and she revealed that she did not spend practise time working on anything other than what was instructed by her teacher.
[94] While Keith and Zayne did have PWCMT, those lessons did not last very long.

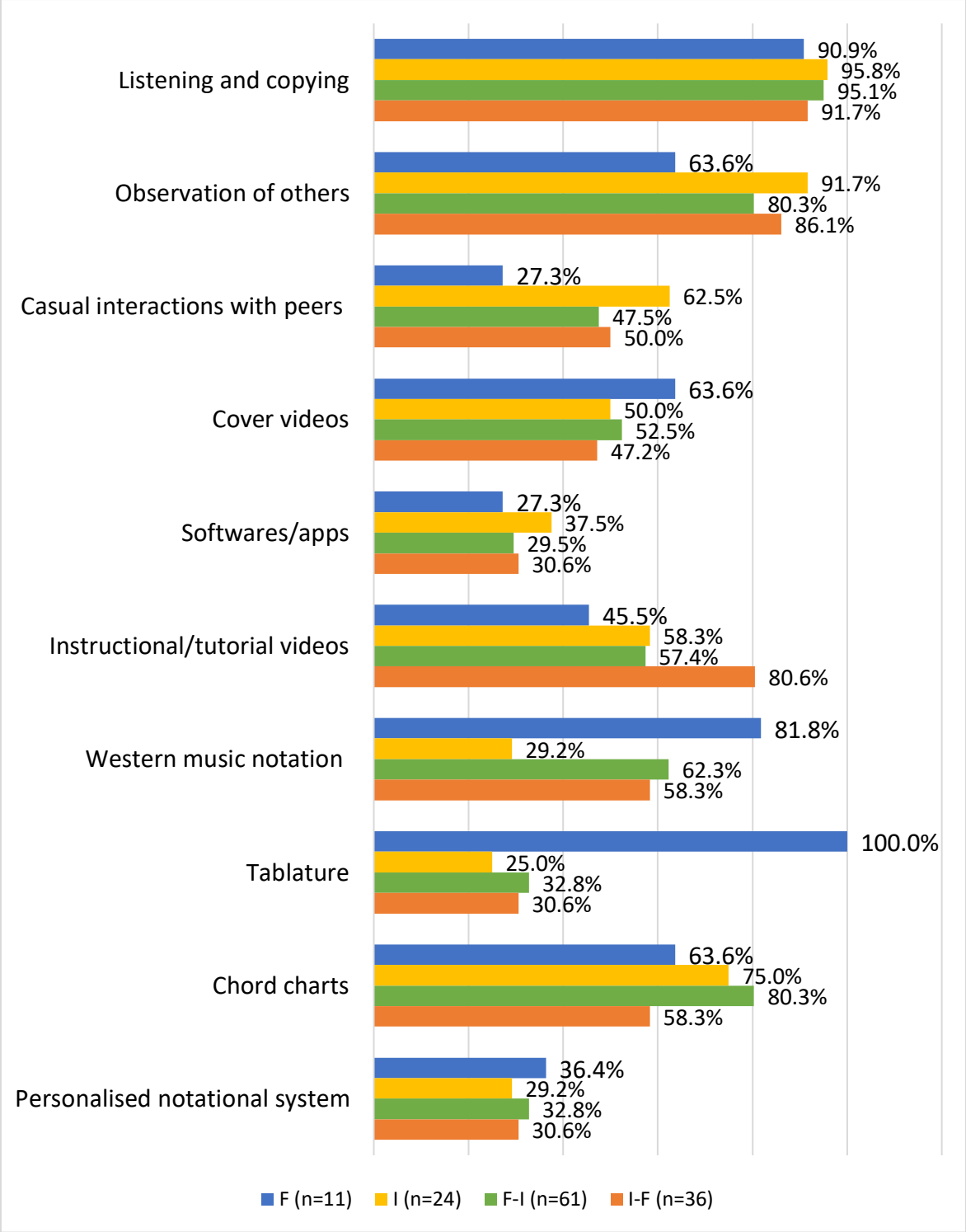


Figure 19: Tools and practices participants engaged with according to context categories

Tools and practices

The findings presented in Figure 14 examined the tools and practices engaged with overall, and they offered interesting insights into the learning culture of current popular musicians and how the culture diverged from past accounts. Incidentally, a detailed investigation of

that data, broken down into the various context categories, yielded further noteworthy observations regarding the diversity of music-learning and -making practices among current popular musicians.

PRACTICES

Regardless of experience with formal and/or informal learning, the prominence of listening and copying remained unchallenged. There were high reports across all the categories. However, in comparison to the other categories, there were significantly fewer reports of learning through observation (63.6%) and casual interactions with peers (27.3%) from the 'F' category. This finding indicated that those who only engaged in formal learning were more likely to develop and progress solitarily, whether throughout the entire learning period, or in part (substantiating the earlier argument surrounding the 'F' category and PLAs). Haley and Yasmin's interview accounts corroborated with this, for they only partook in PLAs after years of solitary learning, and those activities were primarily organised sessions within the context of the HPME programme, and Haley even noted a preference for solitary learning.

TECHNOLOGICAL TOOLS

Shifting attention to the tools made available by technological advancements, there were significantly higher reports of instructional videos/tutorials from the 'I-F' category (80.6%). The interview findings reflected this as well, as both interviewees representing the 'I-F' category (Eddard and Mateo) described a greater use of such tools as compared to all others. The reasons for this divergence from their counterparts could not be determined, as neither was this observation mentioned in literature nor were relevant data acquired by this study. Thus, further research is needed to uncover the factors that led to this finding.

NOTATION

Unsurprisingly, the use of the various notations (except chord charts) were significantly higher in the 'F' category and lower in the 'I' category; conventional notation (81.8% vs 29.2%) and tablature (100% vs 25%). Coupled with the fact that the practice of listening and copying was also prevalent in the 'F' category, this insinuated that those with complete

formal learning experiences tended to use a combination of notation- and ear-based practices. In contrast, those with only informal experiences ('I' category) primarily engaged with ear-based practices only (though there were substantial use of chord charts - 75%). The combination categories (F-I and I-F), on the other hand, reported similar levels in both areas; listening and copying (95.1% vs 91.7%), Western music notation (62.3% vs 58.3%), tablature (32.8% vs 30.6%) and personalised notational system (32.8% vs 30.6%). The only digression was the use of chord charts (80.3% vs 58.3%). The comparable levels between the 'F-I' and 'I-F' categories suggested that the sequence in which one experienced formal and informal learning did not possess much influence on the eventual use of notation or ears. This characterisation of the combination categories was also true for all other tools and practices, except chord charts and instructional/tutorial videos.

As demonstrated earlier in Figure 14, the interviewees used notation in various ways in their practices, and the assortment of usages could be situated on a spectrum. On one end, notation (whether acquired or transcribed) was central to the practice, both in the internalisation and observation of the material. On the other end, notation was used as a supplementary tool whenever listening or memory skills were not up to the task, that was to be discarded once its usefulness had expired. Additional scrutiny of this finding revealed a pattern that delineated the interviewees; those that only experienced FPML and those that experienced IPML (either entirely or otherwise).

Of all the interviewees, only Yasmin and Haley (both from the 'F' category) currently characterised notation as their primary means to learn and internalise any musical material (central to their practice). While Mateo (I-F) used notation in this way as well, he did so only to internalise the material more quickly and effectively; to relieve the strain of remembering the song from beginning to end during the early stages. Once the song was internalised, the score/transcription was set aside. In a way, his employment of notation was more similar to Zayne (I), Keith (I), Eddard (I-F), Sarah (F-I) and Ellie(F-I), where notation played a secondary role to their ears.

Therefore, the findings revealed here regarding the use of notation and learning by ear concluded that learning histories was an influential factor to determine the use of notation-

and ear-based practice. Musicians that solely engaged with IPML throughout their entire music journeys (I) were more likely than others to engage in ear-based practices only. On the other hand, musicians that had engaged with FPML at some point in their journeys (entirely or in part) were more likely to use both notation and ears in their practices, though in different ways. Those whose entire musical journeys only consisted of FPML (F) were more likely to use notation in ways that were central to their practices, whereas those that engaged with IPML as well (F-I and I-F) were more likely to employ notation in ways that were secondary to their ears. Findings presented later in Figures 21 and 22 will further confirm these claims.

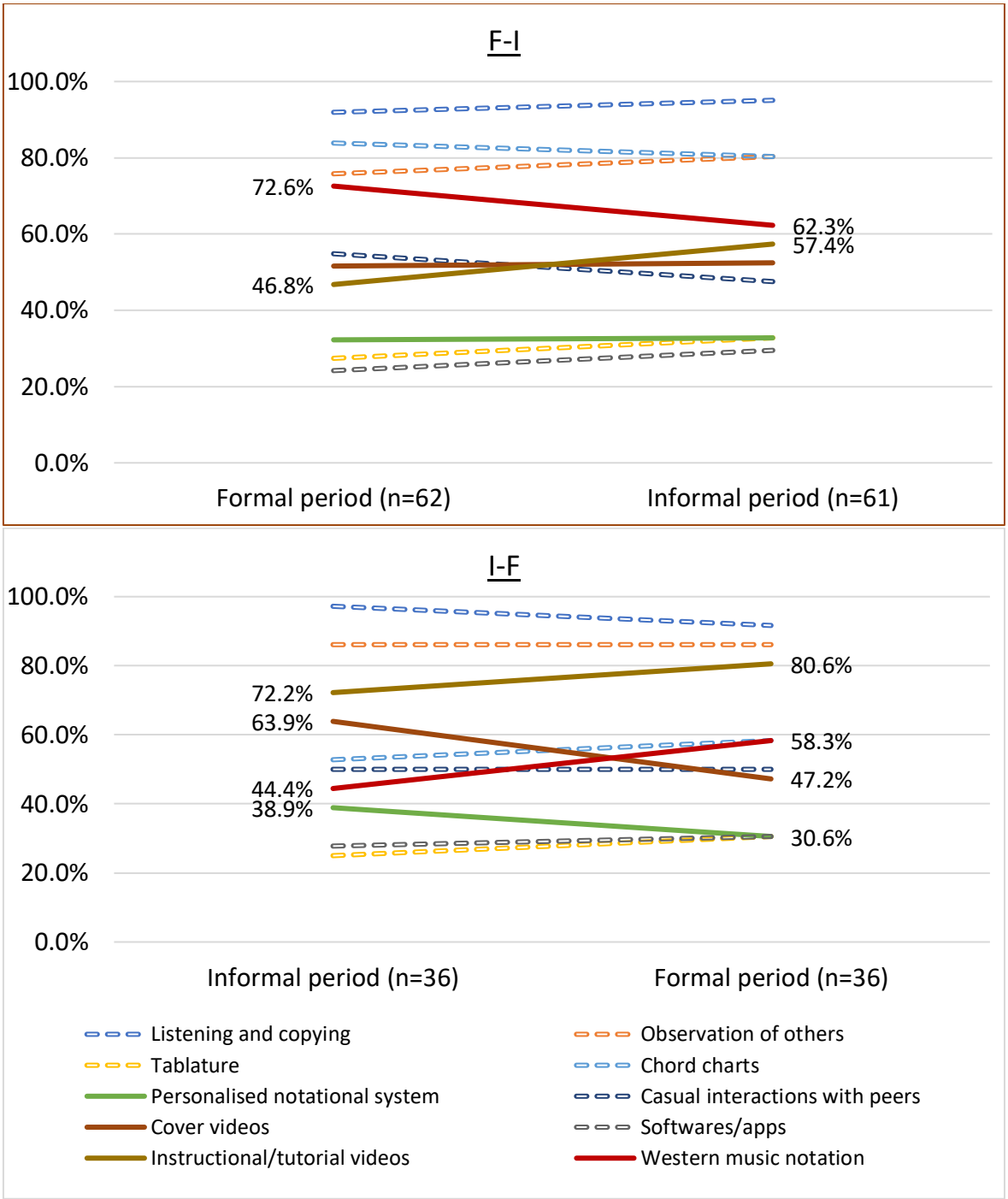


Figure 20: Changes in tools and practices engaged with by participants from combination categories

Changes in engagements with tools and practices

Investigations into the changes in engaged tools and practices by the combination categories (F-I and I-F) after experiencing a different mode of learning revealed a notable decrease in engagements with Western music notation (-10.3%), and an increase in instructional/tutorial videos (+10.8%) by the 'F-I' category. The growth in engagements

with instructional/tutorial videos was also detected in the 'I-F' category (+8.4%), not only pointing towards the assertion made earlier regarding the use of tools and avenues made available by technological advancements (Figure 14), but also the increased accessibility of, and engagement with them as time went by. Other prominent changes observed in the 'I-F' category included the increment of engagements with Western music notation (+13.9%) and the decrease of cover videos (-16.7%) and personalised notational systems (-8.3%).

The juxtaposition of data within and between categories yielded interesting observations and discoveries. Looking solely at the 'I-F' data, the decrease of personalised notational systems and concurrent increase of conventional ones appeared to be the consequence of FPML; a reflection of the training that they received in formal lessons (refer Figure 9). This observation indicated that as musicians became familiar with established systems of music communication, they were likely to either replace or modify their own unique systems with one that was more conventional or integrated/merged this newfound knowledge into their existing systems. This observation was precisely the case for Eddard, who started off using his own notational system, but adopted conventional systems once he acquired the knowledge.

Moreover, when examining the findings of both categories' decrease (F-I, -10.3%) and increase (I-F, +13.9%) in engagement with Western music notation, it became clear that the engagement sequence of FPML and IPML only had an impact on the engagement levels of written forms of music when a new mode of learning was experienced. However, there was no effect on the eventual usage of notation (62.3% and 58.3%)[95]. Eddard and Mateo (both from I-F) incorporated notation into their existing practices after experiencing FPML, while Sarah and Ellie (both from F-I) reduced their usage of notation. Sarah and Ellie's reductions in reliance and usage of notation were reflective of Finnegan's (1989) observation of popular musicians with prior classical music training who 'sometimes explicitly [reject] their classical experience', while other times 'making use of it while aware of the contrasts involved' (p.141). In the end, all four of them, currently, only used notation when needed.

[95] The same was observed for 'Listening and copying', but to a much smaller degree (See data in Figure 20).

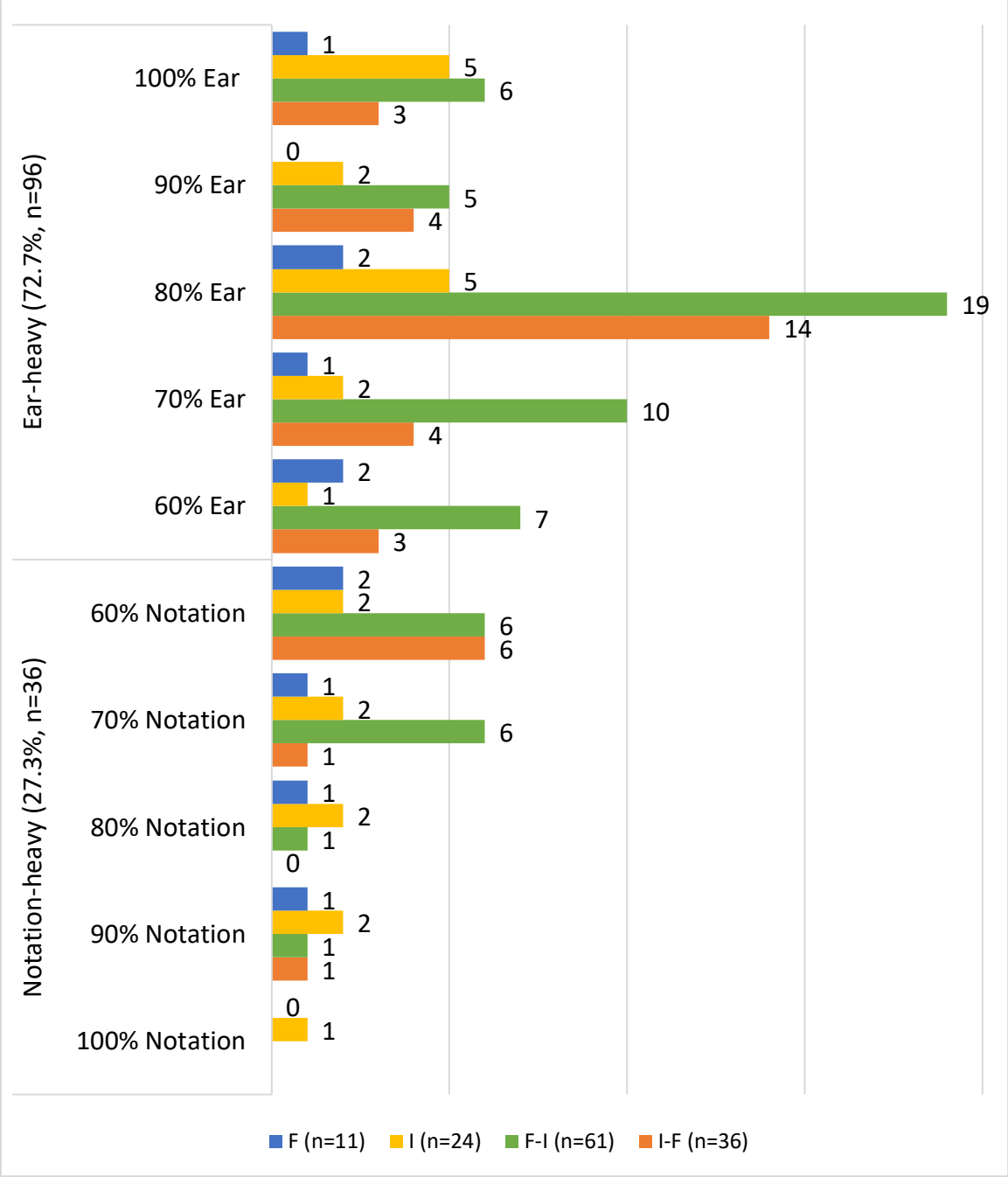


Figure 21: Participants' reliance on notation- and ear-based practices in their own music learning process outside of lessons according to context categories

Reliance on notation- and ear-based practices

Notation's growing role in popular music's-learning and -making landscape, and the contributing factors, were discussed earlier in Figure 15, and further scrutinisation of that data revealed intricacies between the various context categories. The data in Figure 21 showed that a majority of the reported 27.3% (n=36) heavier reliance on notation derived

from participants belonging to categories with formal learning (F, F-I and I-F: 75%, n=27). So, while a majority of the sample (including those that had FPML) ended up using their ears predominantly and used various forms of notation as supplements, it was primarily those with formal learning that reported a heavier reliance on notation. Haley and Yasmin who came from formal backgrounds only (F), developed learning practices grounded in their habitual use of notation. Though Sarah and Ellie (F-I) had currently embraced and adopted ear-based methods of music-making, relied heavily on notation in their earlier periods. Mateo (I-F) too integrated notation deeply into his practice after learning how to comprehend them.

However, there were also participants with only informal experiences (I) that relied heavily on notation as well. The only report of complete reliance on notation was from the 'I' category. Though there was no data to explain this phenomenon, a speculation can be made based on findings so far, with additional supplementary evidence from Green's (2002) study. It was argued earlier in Figure 14 that the learning and performing tools made available by technological advancements were easily accessible. A quick search on Google would produce a multitude of resources, ranging from step-by step guides, to instructional videos and even mobile applications to enable anyone to develop an understanding of music notation. Therefore, in this time and age, it was entirely plausible for anyone to learn music notation knowledge without attending any music lessons. In fact, one of Green's participants, Steve, taught himself notation-reading (2002, p.70). Similarly, there were those from the 'F' category that reported heavier reliance on ear-based practices, some even completely[96].

Instances such as these reiterated two observations made earlier. Firstly, notation, in popular music-learning and -making culture, was no longer always secondary to playing by ear (Figure 15). Secondly, formal and informal learning contexts and their perceived

[96] It should be restated once again that this study did not proceed to determine the musician type of the participants according to the typology created during the development of the methodology, for the typology was an unintended discovery, and the categorisation of participants to this extent was not the intended objective of this research.

respective practices were not, or rather were no longer dichotomously exclusive ('Development of interview questions').

While the 'F' category was somewhat evenly spread out, 50% of the 'I' category were at the extreme end of the spectrum (80%-100% Ear). This finding was consistent with the earlier assertion in Figure 19 that musicians only engaged in FPML were more likely to use both notation- and ear-based practices, and those engaged in IPML were more likely to use ear-based practices only.

As to the combination categories (F-I and I-F), a majority of the participants had reliance that were on the 'Ear-heavy' side of the spectrum, 77% (F-I) and 77.8% (I-F) to be exact. The data analysed here was in one accord with the notion in Figure 19 that those engaged with both FPML and IPML (F-I and I-F) were more likely to use their ears as their central practice, while notation assumed a secondary role. Furthermore, this finding expanded the earlier assertion in Figure 20 about the impacts of the engagement sequence of FPML and IPML on the use of notation- and ear-based practices. The data here demonstrated that in addition to having no effect on the eventual usage of notation- and ear-based practices, the engagement sequence did not have an impact on the levels of reliance as well, for both categories reported similar levels of reliance on ear (77% vs 77.8%) and notation (23% vs 22.2%).

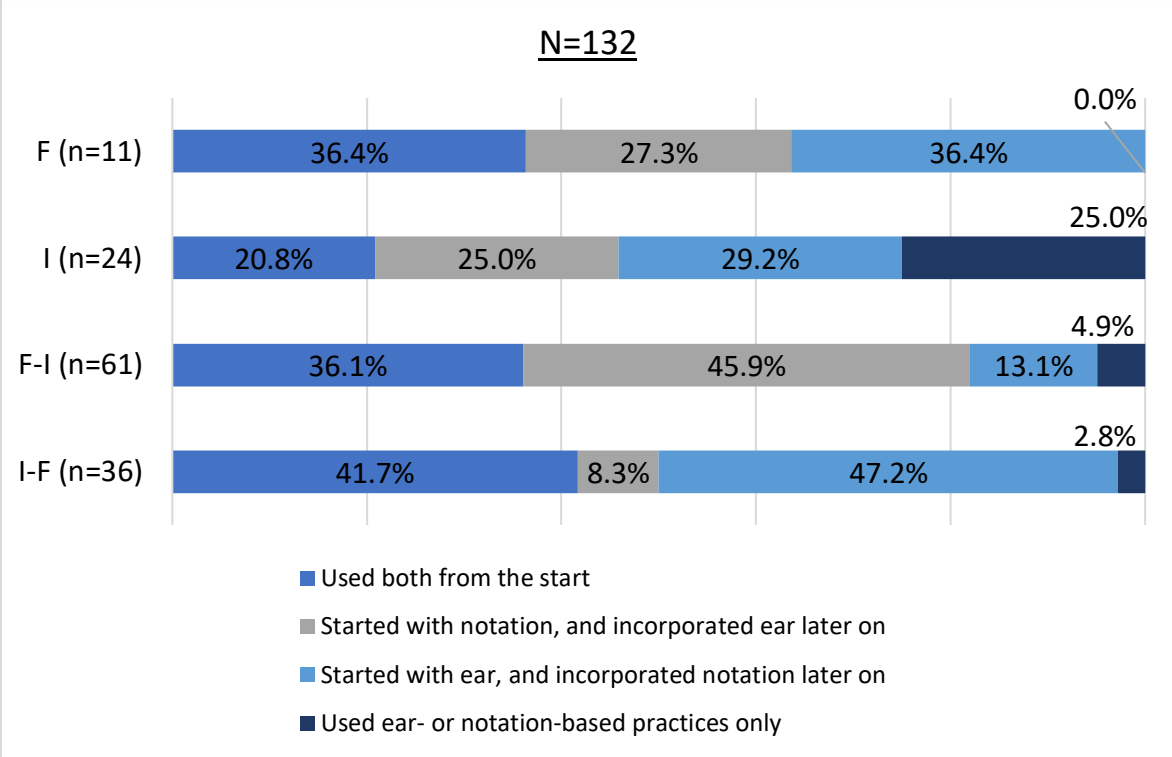


Figure 22: Usage pattern of notation- and ear-based practices during self-learning and/or self-practice according to context categories

Usage pattern of notation- and ear-based practices

It was asserted earlier in Figure 16 that 65.1%[97] initiated their journeys with notation (only or otherwise), and closer inspection of the data in Figure 22 revealed that those numbers primarily derived from 'formal' context categories, chiefly those commencing with formal learning (F and F-I). This observation could be attributed to engagements with FPML as the findings in Figures 7 and 9 suggested that notation had a dominating presence in lessons, but the impacts of PWCMT should not be overlooked as well as 70.17% of those with FPML experiences also had PWCMT[98] (Table 18).

Moreover, the findings here further augmented the claim purported in Figure 19 that musicians who fit the description of the 'F' category were more likely to engage with both notation- and ear-based practices, while those that fit the description of the 'I' category were more likely to rely solely on ear-based practices. All participants in the 'F' category

[97] 30.3% + 34.8% = 65.1% (Figure 16)
[98] (10+10+50+22) / (11+19+62+36) = 70.17%

reported using both notation and their ears, whether it was together on the onset (36.4%), or one after the other (27.3% and 36.4%). The 'I' category, on the other hand, not only consisted of reports that only one type of practice was used, but also had the highest percentage among all the categories (25%).

These propositions were also observable in the interview findings. Yasmin, Haley, Sarah and Ellie had PWCMT and FPML experiences (entirely or initially), and all mentioned that their first instances of popular music learning were in lessons with notation[99]. As Yasmin and Haley developed, they largely remained notation-reliant, but did incorporate ear-based practices. Sarah and Ellie, on the other hand, become ear-reliant but did utilise notation when required.

Zayne, Keith, Eddard and Mateo all began picking up the skills to play their instruments by ear on their own. Though all of them incorporated some form of notation into their practice at a later stage, it did not overtake the centrality of using their ears. Zayne and Eddard developed their own notational systems to function as memory aids, not for the learning of songs. However, as Eddard became more familiar with standard notation, he employed his newfound knowledge in times when his ears were not up to the task. Similarly, Keith referred to chord charts and tablature whenever the chords of the song were challenging, while Mateo used his notational knowledge to 'record' the song in written form, as a tool to internalise the song, and cast off once it was no longer needed.

However, there were also some participants from the 'F' (36.4%) and 'F-I' (13.1%) that started learning solely with their ears, and others from the 'I' (25%) and 'I-F' (8.3%) who only used notation in the beginning. Just like the instances in Figure 21 of 'informal' musicians developing a complete reliance on notation, and 'formal' musicians developing heavier reliance on ear, the findings here can also serve as evidence to further support the observations made in Figure 15 and 'Development of interview questions'.

[99] Sarah started 'poking' around the keyboard trying to replicate sounds she had heard on TV or in the nursery before she had WCMT, but popular music learning was first experienced in lessons with notation.

As can be seen in Figure 22, a majority of participants from the 'F-I' category started with notation (82%), while the majority of the 'I-F' participants started with ears (88.9%). However, regardless of the practices used initially, a majority of participants from both categories gravitated towards the use of (62.3% and 58.3%, Figure 20), and reliance on (77% and 77.8%, Figure 21), ear-based practices. This finding enhanced the validity of the claims made in Figures 20 and 21, that the engagement sequence only had effects on engagement levels of practices after experiencing a new mode of learning, and it was not a factor in the eventual usage of, and reliance on, notation- and ear-based practice.

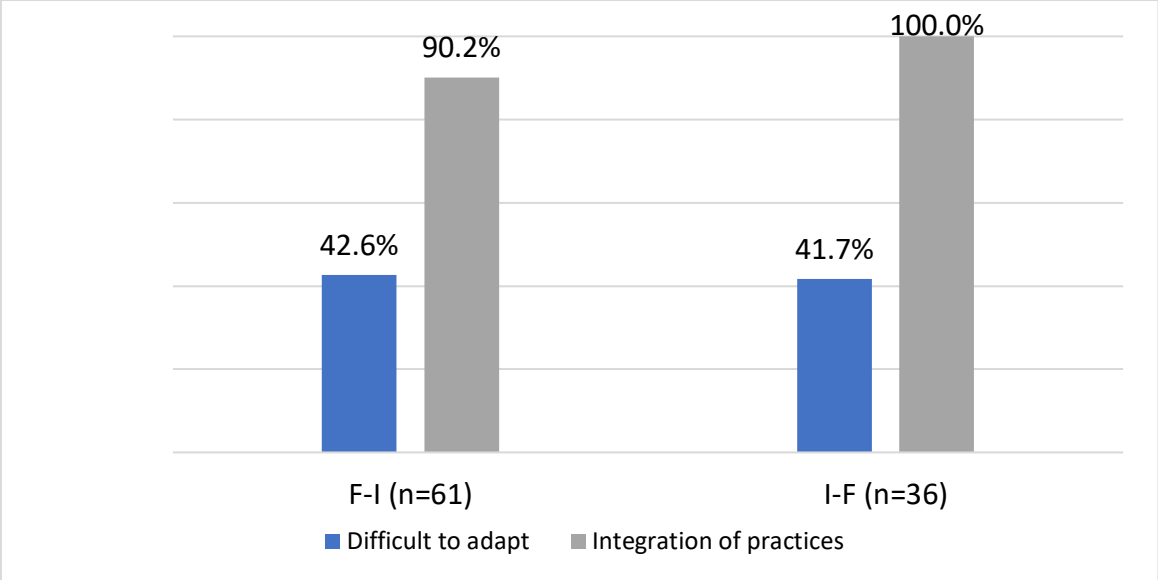


Figure 23: Aspects surrounding the transition to a different form/method of learning

Aspects surrounding the transition to a different form/method of learning

ADAPTING TO A NEW LEARNING METHOD

As clearly shown in Figure 23, similar percentages (42.6% and 41.7%) in both 'F-I' and 'I-F' categories reported facing difficulties when transitioning into a different learning method/process. This finding was consistent with Jones' (2014) conclusion that formally trained musicians found it difficult to interact with informal practices, and past accounts that documented the challenges popular musicians faced in adapting to the practices involved in formal learning (many dropped out or avoided formal learning completely)[100]. This finding also meant that 57.4 % (F-I) and 58.3% (I-F) of participants did not find it

[100] Bennett 1980, Berkaak 1999, Cohen 1991, Horn 1984, Lilliestam 1996, cited in Green, 2002, p.5.

challenging to engage with the new practices involved, signifying another area in which change has occurred between the past and present. The ease of adapting might be credited to the levels of enthusiasm to engage with a different mode of music learning (Figure 26). However, further research is needed to untangle this discrepancy, for the interview findings that this study obtained did not provide enough details for a meaningful exploration.

The difficulty faced by formally trained musicians when experiencing informal practices was further observed in the accounts of Ellie and Sarah. Both expressed feelings of confusion during their earlier periods of interaction with informal practices as they were used to structured learning and external instruction. Ellie revealed that it was difficult to adapt to the informal practices involved when she started her tertiary education because it was remarkably different from the music learning experiences that she had before, where there were unambiguous instructions, structure and progression.

> *'This is the score, you do this you do that, like follow this and you will be able to make it…that was how I was taught, so to completely change that and be like you choose how you want to learn, do whatever you want, and there's this loose guide and base on this loose guide you can choose however you want to approach it…it's like I'm used to being in a box, a very structured box, and then suddenly someone erased the lines… but [my teacher] told me the box is still there'.*

Similarly, Sarah explained that the difficulty faced when she embraced informal practices, especially post-university, was that she had to learn how to be self-reliant. In the past, she was used to having an external voice (teacher) that informed her whether what she played was correct or sounded good, and subsequently what to do next. However, she had to make those assessments and decisions on her own after graduation.

In terms of the depreciating emphasis and usage of notation, it was difficult for Sarah in the first few semesters of her degree, but she became more comfortable as she progressed through the programme. When Sarah first entered HPME, she was not familiar with the role of notation in popular and jazz music cultures, so she started off learning songs solely by reading the notes on the score, just as she had done so for so many years. The challenge emerged when she realised that lead sheets/scores were usually not an accurate

representation of the song, and the convention was to learn from recordings while the lead sheets/scores served as guides only. Even though Sarah had been 'poking around' prior to HPME, the complexity levels of the songs learnt in HPME were beyond her ear-playing abilities in those early days.

She experienced the depreciating emphasis and usage of notation once more, after leaving HPME, when she joined a band comprising of informal musicians only. She was immensely impressed that they could play songs from memory whereas she had to notate them down. She felt embarrassed about it and had since worked towards breaking that reliance on having the score/transcription in front of her. Sarah's sentiments drew comparisons with those depicted by Westerlund (2006) as cited by Lebler and Hodges (2017, p.273) in that the practices that took place within academic parameters were incompatible with those outside institutional walls.

Onto the other side, Eddard and Mateo had different experiences interacting with formal learning practices and notation. Even though Eddard was motivated to learn notation, he admitted that it was excruciatingly frustrating for him because his efficiency in notation reading was much lower than his play-by-ear abilities. Thus, it was a struggle to persist in his endeavour to be fluent in the interpretation of musical notes and not 'cheat' with his ears. However, he clarified that while the process was challenging, it was not difficult for him to embrace formal learning for he believed in its benefits.

Mateo, on the other hand, had a positive experience interacting with musical notation. His listening skills aided his study of music notation as it facilitated his audiation abilities. Given that he could sonically recognise rhythms and beats, it was relatively easy for him to match the sounds in his head to the notes he was reading on paper. Eventually, he developed the ability to visualise the rhythms and beats the moment he has heard them, and by memorising how it sounded, he was able to remember the notation associated with those sounds. While entirely plausible to pin the overall change in attitude towards notation and formal learning as a consequence of WCMT experiences (61.1% from the 'I-F' category reported PWCMT, refer to Table 18), the findings presented here suggested the blurring of

lines between practices and learning contexts to be a more likely factor behind this change, as Mateo and Eddard both did not have PWCMT.

Examining the accounts of the interviewees revealed that the main reasons for the struggles that 'formal' musicians who interact with informal practices may face, were the lack of structure and instruction that they were familiar with. On the other hand, 'informal' musicians who interact with formal practices might struggle due to a lack of patience to persist in notation reading, as their ear abilities were much more developed. However, developed ears were also found to have eased the transition from informal to formal, as it facilitated the study of music notation.

INTEGRATION OF NEW PRACTICES

In all situations (F-I and I-F), regardless of whether it was difficult or easy to adapt to a new mode of learning, almost all participants were able to successfully integrate the new practices into their established systems of learning, which was a plausible explanation for the similar levels of engagement and reliance (Figures 19 and 21). Only a small percentage (9.8%) from the 'F-I' category did not integrate informal music practices with their formal learning habits, which could be aptly explained by Jones' (2014) conclusion. Despite some finding it difficult to adapt initially, all four interviewees representing the combination categories eventually adapted and integrated the new learning practices into their own process of music learning and making.

Despite the un-structuredness of informal learning, Ellie was able to develop a familiarity with it, as she was exposed to informal learning practices within the scaffolding of formal learning environments and could gradually integrate this new musical practice with the notational skills and theoretical knowledge that she had accumulated over the years. Likewise, Sarah had no trouble at all embracing and integrating ear-based learning into her practice for she had been 'poking' around since she was a young child. So essentially, she just had to improve a skill that she already had. Eddard and Mateo too were successful in integrating their newfound skills and knowledge into their own music-learning and -making practices.

Summary

There were numerous discrepancies among the four learning context categories, but those that were notable originated from categories where participants either had complete formal learning experiences (F) or began with them (F-I).

Popular musicians who began with, or only experienced, formal routes of learning were less motivated than their contemporaries to learn/practise beyond what was required by their teachers. Moreover, they were also less likely to engage in PLAs, such as learning through observations and casual interactions with peers. For the combination groups, this meant that participants in the 'F-I' category were less likely than their peers in 'I-F' to be self-motivated and to engage in PLAs in the early stages of their journeys.

When musicians from the 'F' and 'F-I' categories did engage in PLAs, it only took place much later in their musical journeys; this was particularly true for musicians with WCMT before proceeding to FPML. Besides delayed engagements, those from the 'F' category were the least likely among all to engage in PLAs. Furthermore, reports of preferences towards individual activities only derived from the 'F' category. In contrast, those who began with or only experienced informal learning had high engagements with PLAs from the start. However, findings suggested that current IPML could also be a solitary endeavour, contradicting past assertions and rendering the need for further investigation on this subject matter. Future research would also be needed to explore the significantly higher engagements with instructional/tutorials videos by popular musicians who experienced IPML before FPML.

Initial experiences with FPML (and possibly WCMT) were determined to have been an influential factor in engagements with notation, for a majority of musicians that initiated their popular music learning journeys with notation were from the 'F' and 'F-I' categories. In fact, musicians that engaged with FPML (F, F-I and I-F) were most likely to utilise a combination of notation- and ear-based practices, whereas those from the 'I' category were most likely to engage with ear-based practices only. However, musicians from the 'F'

category were more likely to have a heavier reliance on notation, while those from the 'F-I' and 'I-F' categories were more likely to be ear-reliant.

The heavier reliance on notation, in the form of learning and internalising musical material, could be partially attributed to FPML experiences as reports primarily derived from the 'F', 'F-I' and 'I-F' categories. There were reports of heavier reliance on notation from the 'I' category as well, which was possibly due to the accessibility of the knowledge in the era of information technology. However, while there were musicians from the combination categories (F-I and I-F) that were more reliant on notation, the majority of participants from both categories were more reliant on ears-skills than notation.

For musicians with a combination of experiences, the engagement sequence of FPML and IPML had an effect on engagement levels of all the tools and practices investigated after experiencing a different mode of learning. Among other things, those that began with FPML had a decrease in engagement levels with Western music notation after experiencing IPML. On the other hand, those with prior IPML experiences increased their engagements with Western music notation and decreased their usage of cover videos and personalised notational systems, after experiencing FPML. The engagement sequence, however, bore no influence on the eventual usage levels of, and reliance levels on, notation- or ear-based practices. Despite beginning with varying levels, both categories subsequently reported current levels that were similar in both areas. Additionally, both groups of musicians increased their use of technological tools as time went by.

The core difficulty faced by formal musicians who interacted with informal learning practices was the reduction or lack of structure and external instructions. For informal musicians, during early interaction with formal learning, it was the perseverance with the study of notation and resisting the temptation to 'cheat' with developed ears. However, despite initially facing comparable levels, but varied forms, of difficulties adapting to a new mode of learning, both groups found ways to integrate new practices into their established systems of learning successfully. Also, though many still found it difficult to adapt to a new mode of learning, a majority did not find the transition difficult.

In summary, the most prominent factor behind the discrepancies in the engagement with various musical practices and tools could be traced to the occurrence of FPML, while the engagement sequence of FPML and IPML only possessed influence over changes that took place during the transition, not on the eventual outcomes.

RQ3: To what extent do lived experiences influence routes of learning, aspirations, values and attitudes?

This subchapter reports findings that investigated the relationships between participants' lived experiences and:

1. The route of learning that they embarked on
2. Their current preferences and future aspirations
3. The shaping of values and cultivating of attitudes

This subchapter contains three subsections:

Learning Routes

Focuses on the impacts of socio-economic backgrounds on the routes of learning, primarily exploring the influence of parents/guardians.

Preferences and Aspirations

Concentrates on the disparities in music-playing preferences and aspired musical identities that were interconnected with learning histories.

Values and Attitudes

Centres on the discrepancies of values and attitudes that were traced to the differences in learning experiences, from attitudes towards formal learning to the values placed on notational- and ear-based skills.

Learning Routes

In regard to routes of learning, this study opted to focus primarily on parental/guardian (henceforth referred to as 'parents') influences as they arguably played a more significant role in the lives of their children/wards (especially during their developing years); access to instruments, lessons, and even music, were usually subjected to parents' endorsements[101].

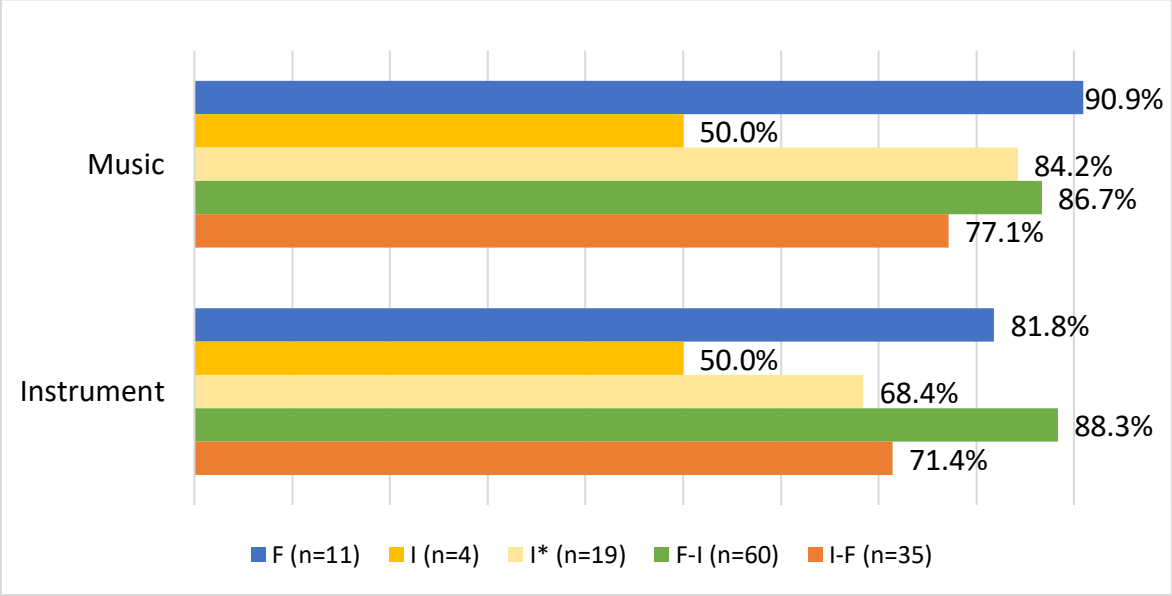


Figure 24: Parental support/approval towards choice of music and instrument

Choice of music and instrument

Inspection of the data in Figure 24 revealed that between 77.1%-90.9% of participants in all categories encompassing FPML[102] (whether entirely or in part) reported parental support towards their choices of music, and 68.4%-88.3% for instruments chosen. In contrast, only 50% (n=2) of those in the 'I' category reported parental support in both areas. The remaining 50% reported that their parents had no comments in both areas, suggesting that musicians from the 'I' category were more likely than others to have parents/guardians who were less invested and interested in their musical interests or musical developments. Given that FPML was the common element between the categories with more positive levels of parental support, and the significantly lower levels reported by those whose entire

[101] Refer to Green (2002) for more details on the influence of parents.
[102] Category 'I*' were participants who categorised themselves under 'I', but survey responses revealed they engaged with HPME (a form of FPML).

learning journey comprised of IPML, there appeared to be a link between parental influence on music/instrument and formal means of music learning.

Furthermore, the data revealed that the categories with the highest number of reported parental support towards the choice of instrument were the 'F' (81.8%) and 'F-I' (88.3) categories. This inferred that musicians who played parent-approved instruments were more likely to begin with formal music learning environments, or that those who began within those environments were more likely to play parent-approved instruments[103].

The findings from the interviews proved this notion to be factual, and it revealed that parental influence went beyond the access to instruments and music lessons. Yasmin, Ellie and Sarah were all introduced to (or compelled towards) the piano and WCMT by their parents. Yasmin's mum prompted her to attend piano lessons, and Sarah's father enrolled her for music lessons without her knowledge. Even though Ellie personally wanted to attend piano lessons, she was first exposed to the instrument and learning environments by her mum. Haley was the only one who was not introduced to any instruments by her parents, but rather she was exposed to them through multimedia. However, her parents were supportive of her desire to attend classical piano and drum lessons.

As demonstrated by the interview findings, the link between formal learning and parental influence went beyond the access to instrument and music lessons, there were active measures taken by parents to nudge their children towards formal learning of an instrument. Examining this purported link between parents and formal music learning against the finding that parents/guardians of 'informal' musicians were less invested and interested highlighted the contrast between the lived experiences of 'informal' musicians and 'formal' musicians (especially those that began with FPML). 'Informal' musicians were mostly left to their own devices in their musical developments, whereas 'formal' musicians had the influence of parents and teachers in their journeys. This had an impact on the

[103] Participants had the option to select 'They had no comment' for 'parental/guardian support' enquiries, rendering participants' indication of their parents' support towards participants choice of music and instrument credible.

musicians' 'sense of ownership' of their craft, which was evidenced by the reduced levels of motivation observed in Figures 10 and 17.

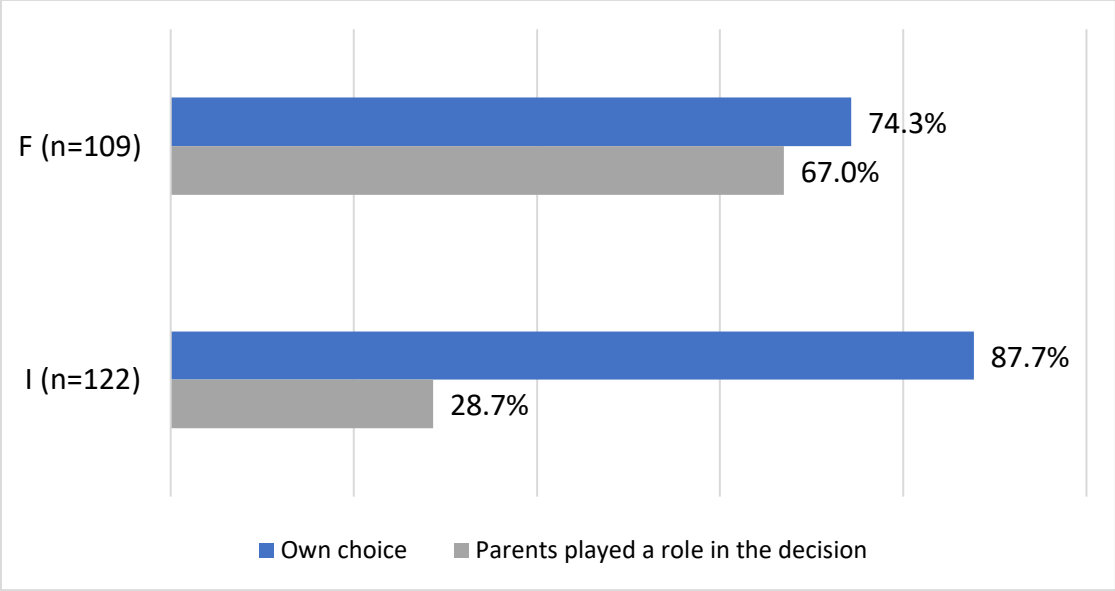


Figure 25: Parental influence on the engagement with formal and informal learning

Engagement with formal and informal learning

The data presented in Figure 25 corroborated the mooted link between parental support and engagements with FPML in Figure 24. Though it was generally the participants' own decisions to undergo formal music learning (74.3%, n=81), it was not without any parental intervention, as 67% (n=73) reported that their parents were involved in the decision.

Earlier in Table 18, it was discussed that parental involvement in regard to formal learning ranged from financing lessons to the compulsion of attendance, regardless of the participant's preferences. These characterisations emerged in the interviewees' accounts; from parents who allowed their children to explore and provided financial support when necessary, to those who thrusted their children towards formal learning. Haley, Ellie, Keith and Eddard informed their parents of their desires to take up lessons, and they financed those lessons. Even though Ellie's mother was reluctant at first, she eventually agreed to her daughter's wishes. In Yasmin's and Mateo's case, their parents urged them towards formal training but gave the freedom to choose. Zayne and Sarah, in contrast, both had

parents who insisted they underwent formal music training, despite their apprehension towards it.

Sarah's father was instrumental in her musical journey; in addition to exposing her to the world of music at a very young age, he was also very invested in her musical progress and would take time out of his busy schedule to make sure she practised every week. When Sarah decided to quit the classical programme to focus on popular music, she revealed that she contemplated dropping out entirely, for she was of the opinion that a music degree was not necessarily crucial for a popular music career. Sarah remained in the institution in the end, but switched to the popular music programme instead, for her father was insistent that she obtain a degree qualification[104].

Zayne signed up for classical guitar lessons at age 12, finally giving in to his father's wishes after years of persuasion. However, his father was not aware that Zayne had quit after 3-4 lessons and continued giving him money to pay for those lessons, only to find out about his son's truancy much later when he saw Zayne's attendance record.

In contrast to FPML, engagements with IPML (whether solely, before or after FPML) were primarily participants' own decisions (87.7%) with little parental interventions (28.7%); all interviewees indicated that their parents had little to no influence on their engagements with IPML as well. The data here corroborated the findings in Figure 24 and was coherent with the findings from the examination of IPML before and after FPML (Figure 26); there were considerably less interventions reported in the commencement of IPML in both 'F-I' and 'I-F' categories.

[104] However, she also noted that she decided to follow her father's wishes for another reason. She developed musically in formal environments, detached from the 'real musicians' beyond institutions, thus, switching to the popular music programme was her route into that community for she could begin networking from there.

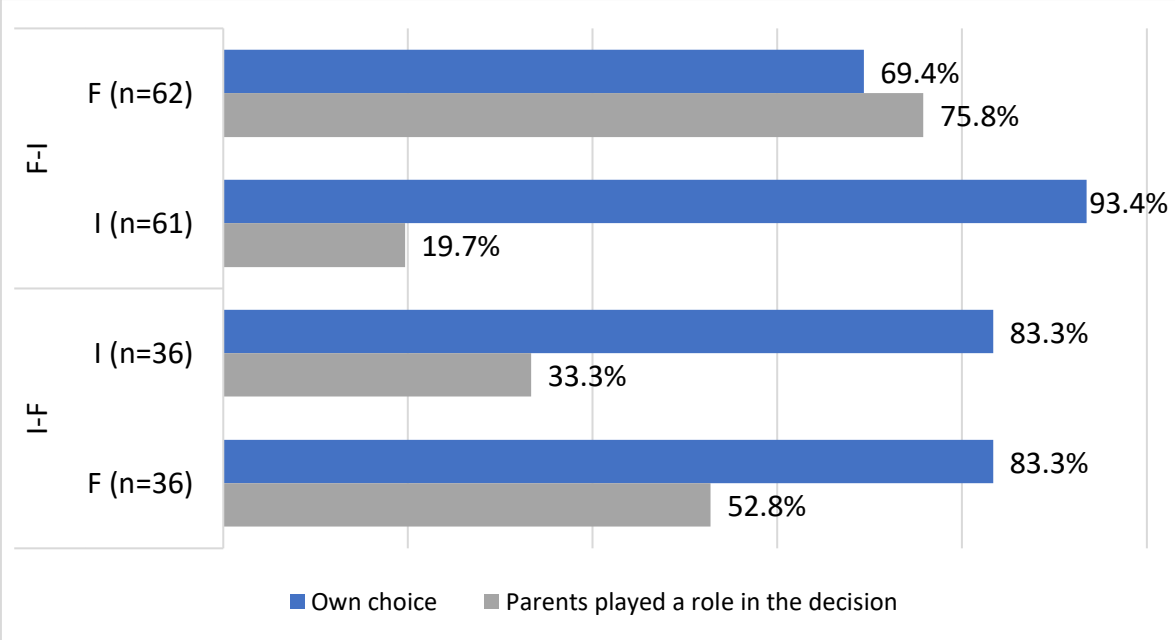


Figure 26: Parental influence on the commencement of formal and informal learning in combination categories

Examining the topic of parental involvement and formal leaning further, data in Figure 26 illustrated that musicians who engaged with IPML first were more likely to engage with FPML on their own accord later on, as the 'I-F' category showed a lesser degree of parental involvement (52.8%) in their decisions (83.3%). This finding correlated with Green's (2002) and Robinson's (2010) assertions that popular musicians tended to seek formal training to elevate their skills after a certain level of proficiency had been obtained, and Eddard and Mateo's accounts confirmed this; both sought out formal training after periods of self-learning.

Contrastingly, musicians who began with FPML may not always have done so enthusiastically, for the 'F-I' category displayed a degree of parental involvement (75.8%) that overshadowed their own choice (69.4%), and this data supported the findings in Figure 24 regarding the influence of parental influence in the commencement of FPML

While the participants from 'I-F' reported the same levels of enthusiasm towards FPML (83.3%) after engaging with IPML (83.3%), participants from 'F-I' reported a much higher level of enthusiasm towards IPML (93.4%) after engaging with FPML (69.4%). These levels

of enthusiasm illustrated their willingness to engage with a new method of learning, which might be one of the reasons why a majority of participants in both categories did not find it difficult to interact with a different learning method (Figure 23).

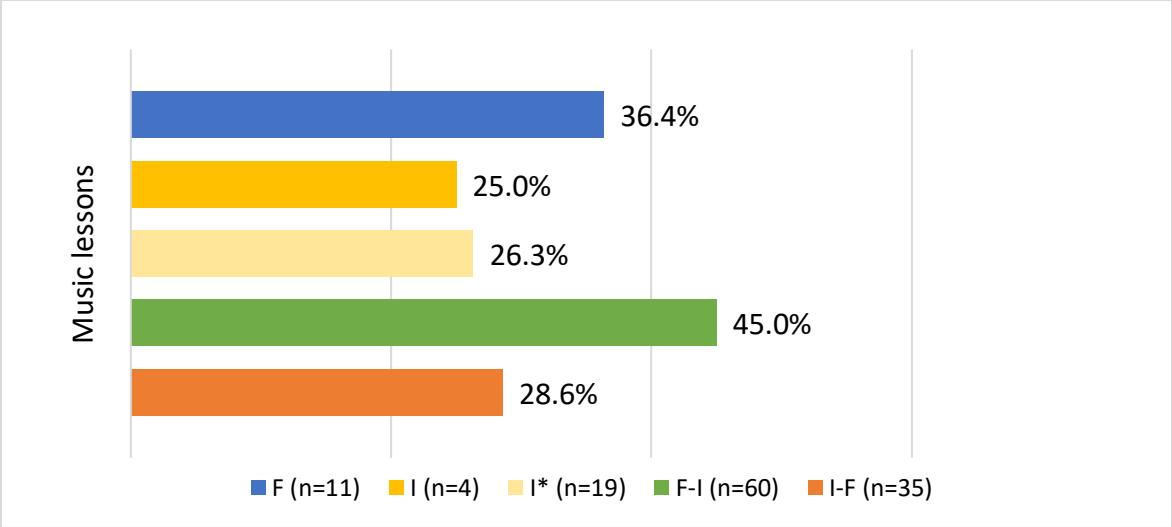


Figure 27: Parents' formal music learning background

Parents' formal music learning background

As can be seen in Figure 27, there were reports of parents having formal lessons from all the context categories, and none exceeded 50%. Therefore, the data here made it clear that parents' formal music learning backgrounds was not a significant influence on the routes taken by participants to learn popular music playing/making. The interview findings corresponded with this assertion as all categories had one interviewee whose parent(s) had formal music learning backgrounds (Yasmin, Ellie, Keith and Mateo), while the other did not (Haley, Sarah, Zayne and Eddard).

However, there were slightly higher reports of parents having music lessons in both 'F' (36.4%) and 'F-I' (45%) groups, which incidentally were also the categories that reported higher parental involvement in their commencement of formal learning (Figures 25 and 26).

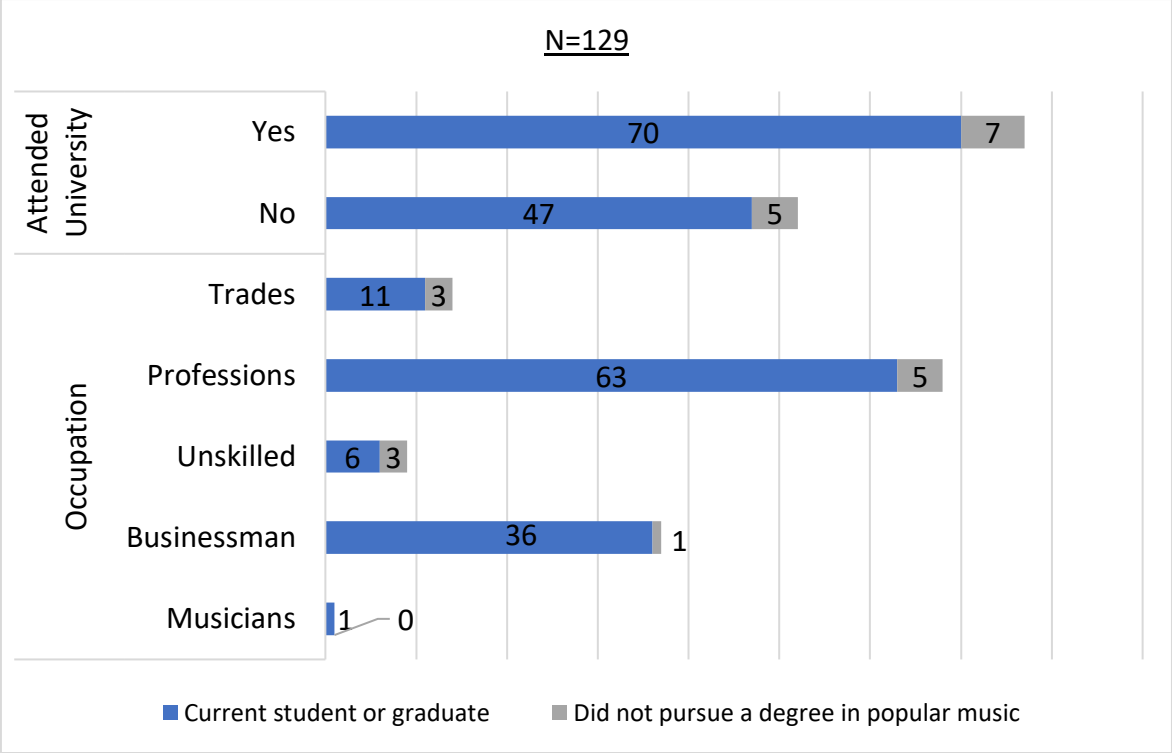


Figure 28: Parents' education/occupation according to participants' HPME engagement

Parents' education/occupation and participants' HPME engagements

It was reported in Figure 4 that 90.7% of the sample engaged with HPME, and this study sought to determine whether participants' socio-economic backgrounds had any causal effect on their engagements with FPML in the form of HPME[105], which was accomplished by examining parents' educational and occupational backgrounds. It was recognised that considerations to determine socio-economic background were far-reaching (social class, financial background, ethnicity, gender, etc.), and parental education and occupation details, though were indicative of social class and financial backgrounds, should not be understood as the only two decisive factors of participants' socio-economic situations.

However, where parental education and/or occupation were concerned, findings in Figure 28 demonstrated that both variables were not determining factors in popular musicians' engagement with HPME, as there were consistent high levels of HPME engagements by participants across all parents' occupation types and education levels. The same was found

[105] In comparison to one-to one instrumental tuition, HPME would arguably have been a more financially demanding engagement.

among the interviewees as well. Therefore, it could be deduced that the high engagement levels found among popular musicians today were due to the bourgeoning provisions of HPME, and the enthusiasm levels to engage with FPML (74.3%, Figure 25) as a means to develop a career in popular music (Figure 3). While this deduction was conceivable, further examination is required to determine the roles of gender and ethnicity in this subject matter.

Preferences and Aspirations

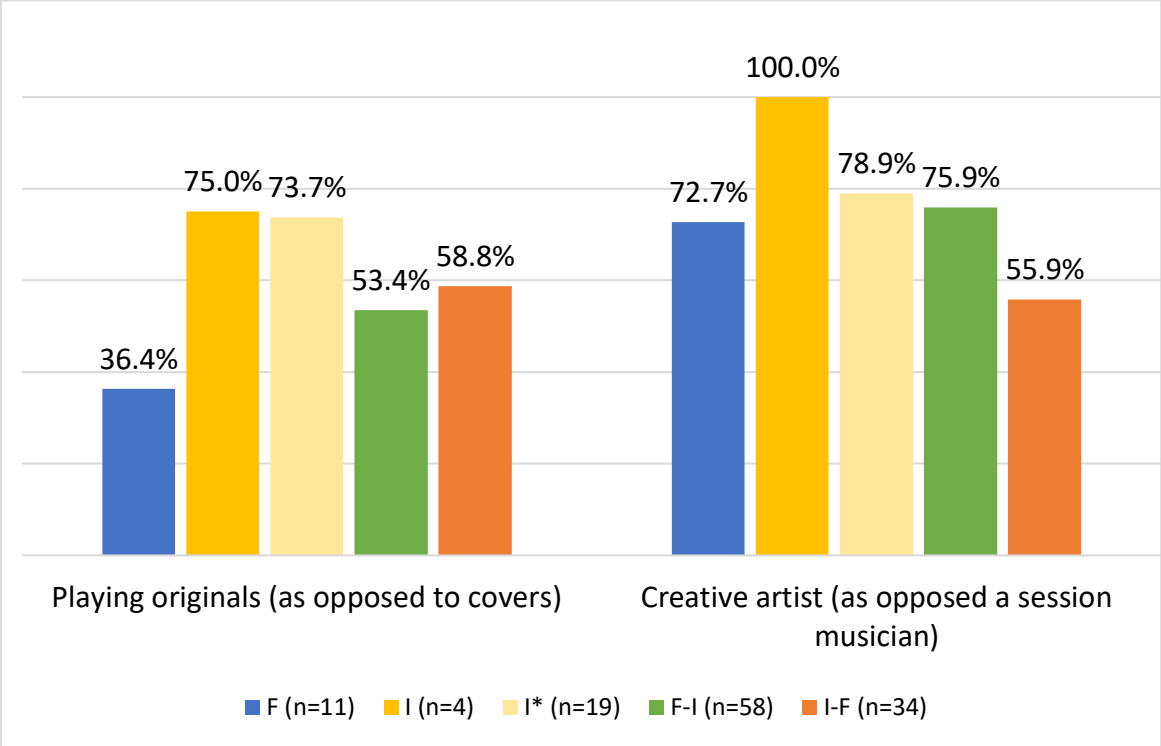


Figure 29: Preferences and aspirations

On average, 57.1% (n=72) of participants preferred to play original music that they had written or created over covers, while 71.4% (n=90) did not aspire to be session musicians, but rather preferred be known as creative artists. Given the age range of the sample, the findings generally correlated with Green's (2002, p.125) assertion of the role of age and maturity in the aspirations of musicians.

> *'In general, the younger the players were, the more value they explicitly placed upon producing original music…Dreams or stardom were, for obvious reasons, more common to the younger musicians…By contrast, most of the more experienced players had either dropped or had never espoused such ambitions and saw themselves more as crafts people (pp.53-55)'*

There was also an observable disparity between groups that comprised entirely of, or started with IPML (I, I* and I-F), versus those with FPML (F and F-I). A majority of participants from categories that began or only engaged with IPML displayed preferences to be known as artists (I=100%, I*=78.9%, I-F=55.9%) who created original music (I=75%, I*=73.7%, I-F=58.8%), rather than session musicians commissioned to perform the music

of others[106]. On the other hand, several participants from categories that began or only engaged with FPML, while aspired to be creative artists as well (F=72.7%, F-I=75.9%), were less inclined to play originals (F=36.4%, F-I=53.4%).

Desire towards creative endeavours with a preference to play covers of others' music rather than creating one's own original music, suggested a preference for music arrangements; displays of creativity in the form of arranging existing music rather than creating new music. Therefore, those who had formal beginnings might develop a preference for music arrangement rather than creation, and this assertion was observed in the interview findings; Ellie (F-I) noted a deep interest in music arrangements in her interview without any prompting.

Exploring this subject with the interviewees, it was found that song playing preferences and aspirations were not always absolute. All the interviewees (including Ellie) aspired towards becoming creative artists performing their own original music, but for many, that was not all. Sarah revealed that all parameters of the performance did not matter (covers/originals of all kinds) as long as someone was willing to listen. Haley had concurring views in that nothing else, not even audiences mattered, as long as the band was tight[107]. Yasmin had aspirations to concurrently be a session musician who supported the front line while also having her own creative avenues, and Mateo revealed that there was a disparity in his current and future aspirations.

> *'I think between creative and session work, one is for money and one is for self-pleasure. I think for now, cause what I understand about musicians is that they usually do session work to a point where they cannot do it anymore, then they start going down the creative route. But I think right now I need to be realistic and start from being a session musician to earn money, and only start thinking about creative work later on'.*

Mateo's comment was not particular, for Zayne fitted his description of musicians impeccably. Initially, Zayne primarily engaged in session work, playing covers in pubs and laying bass tracks in recordings as he aspired to be like the session musicians in his network.

[106] While 'I' did show a difference of 25%, that was translated into one participant only.
[107] This attitude might be the result of the enculturation of values she encountered during her HPME period, as it was noted earlier in Figure 5 that her programme values tightness of the band over everything else.

However, he began to notice that even though they were all great musicians and could play impressive solos, there was no individuality in their sound; he was not able to tell them apart just by listening to them play. It made him realise that he did not want to become a generic-sounding bassist, but instead, he wanted to be known for his own individual sound, and if he continued down this route, he would end up like everyone else. Therefore, he decided to abandon his aspiration to be a session musician and focus on working on his own craft, his own style and approach to creating and playing original music with other like-minded musicians who were also tired of working as session musicians and playing in all sorts of commercial engagements.

As evidenced by the interview findings, aspirations and song preferences were not always one or the other. Even in instances when they were, they were not set in stone and could change over time.

'Originals' in popular music-making was not just music of the musicians' creation but implied music that was distinctive to their identity (Green, 2002, p.53), music that embodied their own individual sound, a product of self-expression. 'Creative Artist' in this study referred to musicians who identified with the above description. 71.4% of the sample, including all the interviewees, had that aspiration. In the discussion of self-conceptions, Green (2002, p.46) argued that 'aspirations for the future…can affect music learning practices in various ways', and this was observed in the interviewees' accounts (discussed later in Figure 31).

Values and Attitudes

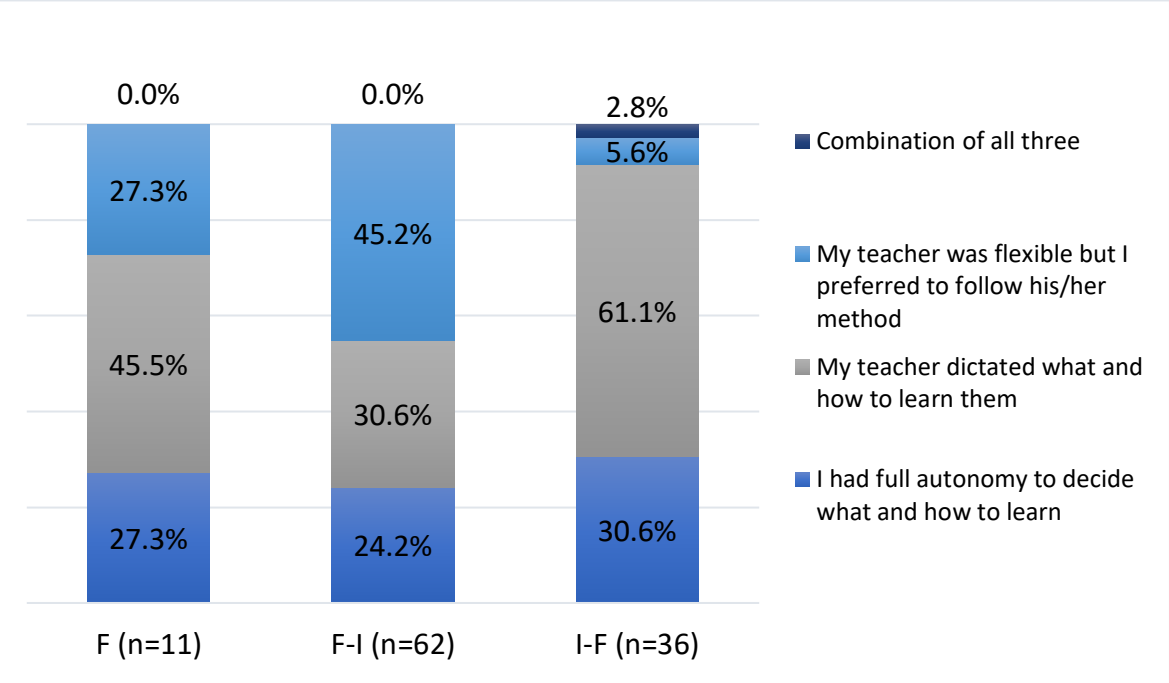


Figure 30: Balance of autonomy between teacher and student in instrumental lessons according to context categories

Autonomy

The issue of autonomy was investigated further in Figure 30, and there were discrepancies among the three 'formal' categories. The perception of lacking autonomy in lessons was most prominent among the 'I-F' category; a majority (61.1%) stated that their teachers dictated lesson materials and the methods of learning.

The core difference between the 'I-F' category and the other two 'formal' categories was that FPML was only experienced after a period of IPML, suggesting that they previously enjoyed the kind of autonomy in the learning process that was described by Green (2002, pp.105-106). To then switch to an environment where there were external instructions and structure that might contradict with their systems of music-making could have contributed to a sense of restriction and constrain. The fact that almost all the participants in 'I-F' either perceived that they had full autonomy (30.6%) or none at all (61.1%), while 'F' (27.3%) and 'F-I' (45.2) had participants that reported a preference to follow their teacher's method of teaching in addition to the other two characterisations of autonomy contributed to this argument.

This observation struck a chord with literature's assertion that many popular musicians found it challenging to adapt to the practices of formal learning[108]. Beyond that, it also suggested that the engagement sequence of formal and informal learning could have an impact on attitudes towards methods of learning, as the findings from Figure 30 illustrated the differences in attitudes towards formal music learning practices between those that had established their own self-learning systems and those that had not.

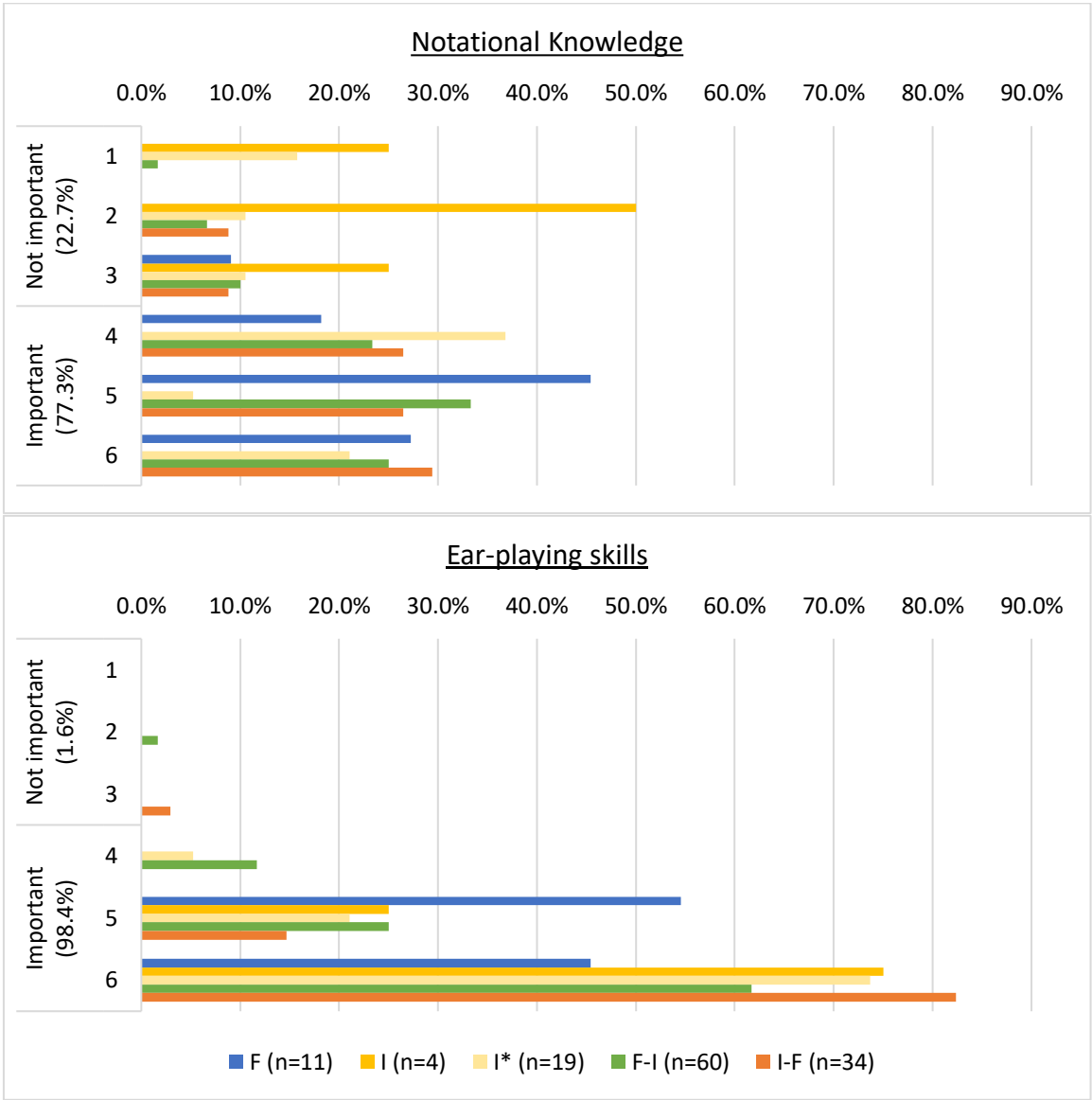


Figure 31: The importance of notational knowledge/skills and ear-playing skills to a popular musician

[108] Bennett 1980, Berkaak 1999, Cohen 1991, Horn 1984, Lilliestam 1996, cited in Green, 2002, p.5.

Importance of notation and ear

NOTATION

This study asked participants to evaluate the essentiality of both notational and ear-playing abilities to a popular musician on a scale of 1 (Not important at all) to 6 (Very important); 1-3 being varying degrees of unimportance from the greatest to a lesser extent, and 4-6 between degrees of importance from a lesser to the greatest extent. 77.3% of the sample rated notational knowledge/skills to be essential to a popular musician (Figure 31). This high value assigned to notational skills by a majority of the participants did not align with sentiments from past musicians' accounts, suggesting a change in attitudes and practices involved in current popular music-making.

Analysing this finding further, the reports of higher ratings were generally from musicians who had FPML (F, F-I and I-F categories) and experienced an emphasis on notation-based learning practices (Figure 9). In contrast, none of the participants in the 'I' category perceived notational skills to be essential to the practices of popular musicians. While that was the case, there was no consensus on the degree of importance, for positive ratings were somewhat evenly spread out across 4-6.

Exploring this topic with the interviewees revealed the factors that contributed to these evaluations. All the interviewees, except Keith and Zayne, rated notational skills/knowledge as important, and the themes that emerged from the interviews were notation's advantages, during engagements/gigs that had little/no rehearsals, and in their practices.

All interviewees (except Keith) recounted experiences of being expected to sight-read at the gig, or to learn the repertoire by reading the scores provided earlier, and then deliver the performance after one rehearsal. Therefore, the lack of notational knowledge would obstruct some musicians from engaging with such opportunities, and this was thoroughly detailed by Zayne, who despite having little regard for notation, acknowledged its essentiality in session work.

As described earlier, Zayne took pride in being a self-taught musician who did not need formal training, but he realised the importance of notational skills later in life, as his lack of notational knowledge prevented him from accepting or being offered opportunities. He was once asked to deputise in a gig with a prominent Malaysian pianist, but Zayne turned it down, as this prominent musician was well known for remembering every single note that he wrote for each musician, and he had an acute awareness of any deviation.

At another time, he was overlooked for a backline role for a popular Malaysian artist. Despite the recommendation from the artist himself and another seasoned industry player, the musical director (MD) did not offer the job to him. Zayne speculated that the reason behind it was that the MD wanted to work with musicians she was confident could deliver a performance with minimal/no rehearsals. As she was not familiar with Zayne at all and was informed by the seasoned industry player that he could not read music, she might have decided against hiring Zayne for the job.

Zayne reiterated that this was the disadvantage of not knowing how to read standard music notation, and with it being an open secret. Certain engagements require the musician to inspire confidence that they can deliver a performance in the shortest amount of time or on the spot, and good reading skills enhances that confidence. Therefore, opportunities are less often offered to ear-playing musicians like Zayne, which caused him to regret not learning how to read music when he was younger. However, at the same time, it also made him realise that it was not the path he wanted to take. Instead, he preferred one that was an avenue for his own musical expressions, thus currently perceiving notation to be relatively unimportant to his work.

Keith, a singer who was aiming towards becoming a commercial artist that produces original music, only focused on musicality and expressions when rating the importance of notation. He explained,

> *'If you learn something by score then you'll just be playing what the original person intended, but when you learn by ear there is room for interpretation, your own version of it. Not be bound by the notation'.*

Judging by Keith and Zayne's comments about notation, they both acknowledged that notation was essential for a session musician. However, it was dismissible in their own practice, for they did not aspire towards becoming session musicians, but rather to become creative artists who focused on their individual sounds and their own ways of music-making, without conforming to industry conventions.

Although the other interviewees (that rated notation as essential) also aspired towards creative endeavours, the key difference between them was that they were currently highly engaged in session work, and their aspirations very likely were earmarked for the future, just as Mateo observed. Zayne, on the other hand, had reached a stage where he had stepped out of the life of a session musician, which contradicted Green's (2002, p.55) observation of experienced players, while Keith did not aspire to be a session musician at all. As such, their accounts here demonstrated the ways in which aspirations can influence attitudes and values. Those engaged in or aspired towards session work place higher values on notational skill, while those engaged in or aspired towards creative endeavours do not view notation knowledge as a crucial ability.

Beyond an essential skill for session engagements, notational knowledge brought about other benefits as well. Yasmin explained that she could fall back on notational skills to supplement the deficiencies in her ear-abilities, such as referring to chord charts to facilitate the acquisition of musical details that her ears could not pick out. Supplementing deficiencies in ear-abilities with notation was documented in Green's (2002, p. 70) study as well.

Sarah found notation useful to immortalise musical ideas when recording them was not an option. Also, it freed her from the risk of having her music transcribed by someone else who might produce an inaccurate written representation of it, as she could produce a score that communicated her intentions accurately by herself. Beyond the individualised advantages described above, she also encountered many non-reading musicians who regretted not learning how to read, especially when preparing for a last-minute gig, for they struggled to memorise the entire song list by ear (a score could function as a useful memory tool). Zayne too admitted to being aware of the disadvantage that he was in, due

to his lack of notational knowledge. Compared to his peers who could just read off the prepared scores or even prepare their own scores that comprised all the information they needed to play the music, he had to put in extra effort to memorise the music by ear (with the aid of his own personalised notation system).

Sarah might appear to be an advocate for notational skills, but she clarified that notational knowledge was not of utmost importance for a popular musician, as there were many instances of professional musicians who survived in the industry despite their lack of it. She elaborated that based on her observations, non-reading musicians would develop their own systems of learning and remembering songs, and with enough practise or experience, their systems developed into something unique and effective. Zayne was one such musician.

EAR

It was also observable in Figure 31 that the centrality of ear-playing skills remained unrivalled over time, as it was considered crucial by nearly all participants (98.4%). In addition, regardless of learning histories, whether comprising solely of FPML, IPML or a combination of both, play-by-ear skills were unanimously considered valuable by nearly all participants. Unlike notation where the primary reasons for its importance were job opportunities and practice-related advantages, three themes of the essentiality of ear-playing skills emerged from the interview accounts; the ability to appropriately respond to whatever was happening during a gig, communication with informal musicians and musicality.

Yasmin, Ellie and Zayne explained that there were times during gigs when either the song was not played in the intended key, or the person that started the song had no idea what key he/she/they was playing in. In addition to that, there were also gigs where either the song list was not set, and the singer would inform the band of the next song, expecting them to start playing on the spot, or the singer would just start the song and expected the band to follow. In all cases, listening skills were crucial in determining the keys, the grooves, and the chord progressions of the songs played.

Haley, Sarah and Mateo asserted that ear-playing skills were immensely crucial for communication with ear-based musicians in order to participate in their practice. As they did not speak the same musical language of standard notation, they communicated ideas with their instruments through demonstrations. So, it was imperative to be able to pick it up by ear in order to understand their instructions. The same had to be done as well when communicating ideas back to them (ear-based musicians).

Eddard and Keith stressed the importance of listening as well to develop musicality.

> *'If you don't know how to listen to the song, you are just reading notation all the time, just focus on notation, but you're not really listening to the music, I think it is useless also. It's like…I'm just a robot, I'm just playing like a robot, I'm not enjoying the music'.*
>
> *'If you don't know what sounds good, then you wouldn't be able to make something that sounds good, you'll just be able to play what other people think is good, and you also won't know if you're playing it wrong.'*

Green (2002, p.99) asserted that 'an attitude towards [a] practice might involve commitment or carelessness; whereas the values placed upon the practice might involve a belief that it is a significant or an insignificant part of life'. This assertion, translated to the findings here advocated the notion that learning histories possessed the potential to exude influence over the values assigned towards notational skills, and subsequently determine the attitudes towards them. This notion, however, was not applicable to ear-playing skills. Regardless of aspirations or learning histories, ear-playing skills were determined to be of utmost importance by all the interviewees.

It was plausible that the evaluations of these skills (values assigned to them) were based on participants' experience with the industry's expectations, rather than their learning histories. However, the apparent discrepancies observed among the categories of participants' valuation of notational skills made a strong argument for the role of learning histories in this subject matter.

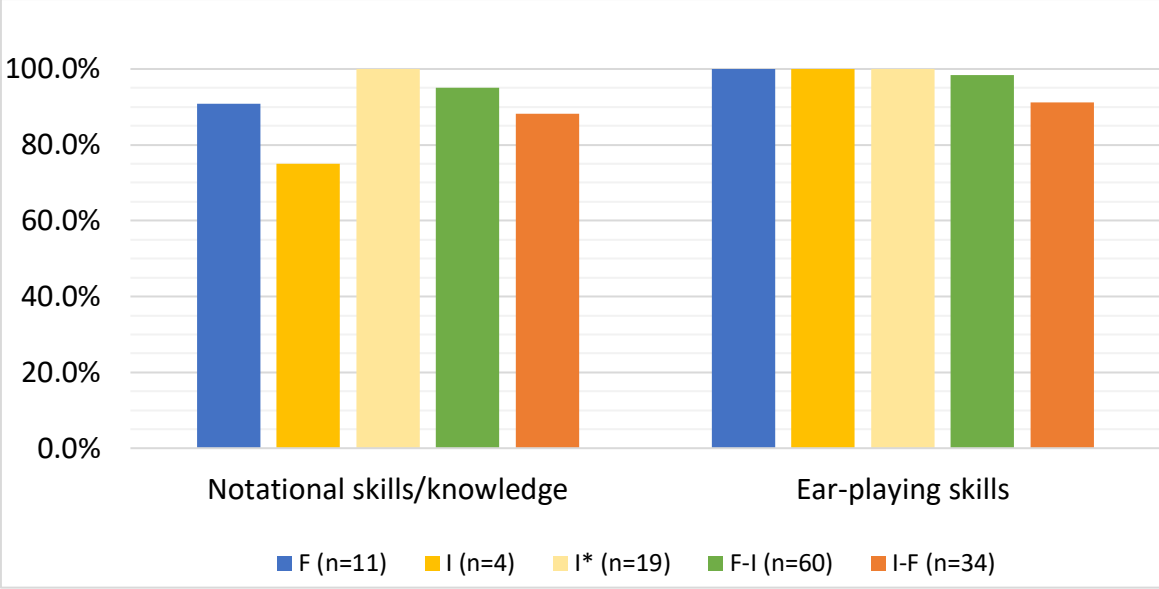


Figure 32: Belief in the facilitative impacts of notational- and ear-based skills in the development of performing abilities

Benefits of notation and ear

As can be seen in Figure 32, current perceptions of notation in the learning and developing process were highly positive, regardless of learning histories, albeit slightly lower than ear-playing skills. Scrutinising the data further showed that the category with the lowest percentage was 'I' at 75%. However, taking into account that this category only encompassed musicians who had no experience with FPML, it made a strong case for the argument that notation was no longer a practice or tool exclusively reserved for formal learning environments, and that it was now accessible to those outside institutional walls.

BENEFITS

In the exploration of those facilitative impacts, it was learnt from the interview findings that they mainly surround matters of learning processes, particularly in how notation or listening skills opened up alternative avenues for them to acquire skills and expand their knowledge. Beyond facilitating the learning process, notation also took some burden off memorising the entire music. On the other hand, ear-based skills facilitated skill developments in areas such as improvisation, actualising musical ideas conceived in their heads and even the study of notation.

Beyond learning processes and skill developments, there was also the ability to modify behaviour. Mateo believed that learning to read music, and eventually acquiring notation-reading skills aided his development as a musician as it helped him become disciplined.

> *'I think it helped, in what way...less is more? If I see the notation then I'll know I can't do a fill in here. When I hear a groove I will go on autopilot till I get to a part that sounds different, and then I will figure it out again. So, if there's no notation, I will play the groove, but I will add my own things in there. If there's notation, it will restrict me, keep me in line, and I think in pop music this restriction is ok, because I had an experience in a recording studio where I learnt that I really can't just play what I want'.*

Given that past accounts depicted popular musicians to have excluded notation from their practice (whether purposefully or not), the findings here demonstrated a clear distinction between past and present popular musicians' attitudes and values towards the use of notation. Contradicting Green's (2002, p.125) assertion that 'there [were] no grounds to suggests that social, musical or educational changes over the last forty years have had very much influence over the attitudes and values towards music learning of [popular musicians]', the findings propagated the notion that changes did occur over time.

DRAWBACKS

However, the interviewees also noted how notational knowledge and ear-based skills had potential drawbacks. While Zayne was an ear-playing musician and advocated ear-based skills to be the most important skill set a musician should have, he admitted that he tended to overplay, to do things that he was not supposed to do. Understanding Zayne's comment alongside Mateo's suggested that Mateo was correct in his assessment of notation's role in developing discipline. Zayne also noted the unreliability of the ears, as he claimed that it was possible to be 'tricked' by one's ears, hearing a different note or key from that of the music. He recalled once playing in a jam session where there was a lead sheet provided, but he relied on his hearing and ended up playing the harmony of the line that he was supposed to play.

In addition to Zayne's comments, Haley, Sarah and Keith all described how reliance on one particular skill set could potentially be crippling. Haley acknowledged that her reliance on notation resulted in anxiety in its absence. She felt insecure when she had to play

something that she could not picture mentally or write down. She went on to say that her low confidence in the absence of notation was also because of how she learnt. The use of notation became integral to her habitual learning process, and she was more fluent at hearing the notes when reading them, rather than visualising the notes when hearing them.

Sarah shared similar sentiments; she immersed herself into the realms of informal music-making practices post-university, where she began interacting with musicians who played entirely from memory and never needed any written notes. It was during this time that Sarah became aware of her reliance on notation, as she felt crippled when having to perform without the notes in front of her, recalling stage fright and mind-blank moments occurring when she initially had to play entirely from memory.

There too were instances where she struggled to sight-read due to her reliance on learning a song by ear. She described an instance where she was required to sight-read her parts during the rehearsal with an orchestra, and she was utterly overwhelmed.

> *'Like cause there's no audio reference like how is it supposed to sound, I think too much about the articulation instead of focusing [on playing] the right notes first, I was emphasising too much on the aural side, like did I play this soft enough, did I blend with the orchestra enough, like is it supposed to sound like that, I was worrying too much about it until like my mind blanked out as well, even though the notes were right in front of me and I learnt a lot from that as well. Like I didn't even know how to read the conductor's wand (baton), yeah like I didn't know he was slightly in front, and I should listen to the orchestra, but I was also trying to figure out my part, so I don't know who to follow and that was like [a] traumatising experience for me'.*

While it was an unpleasant experience, it opened her eyes to the fact that she could not rely on her ears 100%.

Keith too noted that the downside of his reliance on playing by ear was that he would not be motivated to improve his reading skills. He gave an example of having to sight-read an excerpt in class and then play/sing that same excerpt in a modulated key, to which he confessed he could not do. Instead, he memorised the melody and modulated it by ear.

As can be seen from this enquiry, notational skills were highly rated alongside ear-playing skills for notation knowledge brought about numerous benefits in the music-learning and-

making processes. It also had the potential to enable the musician to be more disciplined. Ear-playing abilities was crucial in developing musicality (as evidenced in the next subchapter) and even facilitated the study of notation. However, despite these benefits, over-reliance on either one skill could have undesirable effects, such as a sense of insecurity in situations when the over-relied skill could not be employed, and the lack of urgency to improve the under-relied skill.

Summary

Various parental factors, including support/approval towards chosen music and instruments, and direct interventions by means of financial support or compulsion of attendance, were significantly prevalent in the commencement of FPML. Such influences were not observable in the commencement of IPML. This disparity in parental (and subsequently teacher) involvement in the musical journey was argued to have contributed to the discrepancies in motivation levels.

There were fewer parental influences on the commencement of FPML after sustained periods of informal learning (I-F) as musicians themselves sought out formal training after certain levels of proficiencies had been achieved. In a similar fashion, participants from the 'F-I' category reported fewer parental influence on the commencement of IPML, and much higher levels of enthusiasm to engage with IPML. This put forth the notion that the enthusiasm to engage with new learning methods might be a possible reason behind the ease to adapt to a new mode of learning.

While parents' involvement exerted influence on their children's engagements with formal learning, their musical, educational and occupational backgrounds did not play a significant role in their children's journeys of becoming popular musicians or engagements with HPME. This provided credence to assert a conceivable deduction that the high levels of engagement with HPME observed was because of the bourgeoning provisions of HPME and the high enthusiasm levels to engage with FPML.

The differences in the relationship between music-playing preferences and aspired musical identities were somewhat divided along the lines of learning histories. Musicians with informal beginnings ('I', 'I*' and 'I-F') were more likely to have a preference to play original music that they created. Those with formal beginnings ('F' and 'F-I') on the other hand, while yearning to be known for their creative endeavours as well, might be more inclined to arrange existing music rather than create new music. Aspirations towards creative

endeavours encompassing original music were most common[109]. At the same time, many of the musicians either had concurrent aspirations to undertake session work as well, or reserved creative aspirations only for the future, as they currently work towards establishing themselves as session musicians for financial reasons. However, aspirations and song preferences were fluid and could change over time.

Regarding values and attitudes, those with prior IPML were more likely than those without it to cultivate an apprehensive attitude towards FPML, thus, this highlighted the influence of learning experiences on attitudes. Furthermore, while the high values assigned to ear-playing skills were arguably unanimous across the categories, the similarly high values assigned to notational skills could be delimited according to engagements with FPML, as positive perceptions of the importance of notational knowledge/skill were only found in categories that encompassed FPML (entirely or in part). In contrast, all the participants in the 'I' category indicated negatively. Higher values assigned to notational skills were also observed among musicians who had future creative aspirations but were currently engaged in session work, whereas musicians with current creative aspirations and were either not, or no longer, engaged in session work, did not view notation as necessary to their practice.

The essentiality of notational skills primarily manifested itself in situations linked to financial remunerations, especially engagements/gigs that had minimal to no rehearsals[110]. Additionally, notation also functioned as a tool to supplement ear-skills, document music learnt by ear, and serve as a memory aid. The essentiality of ear-based skills conversely, was comparatively far-reaching; a crucial skill during performances, interactions with other musicians, and in developing one's own musicality.

The various methods or routes of learning bore no effect on the belief of the facilitative impacts of notational- and ear-based skills[111]. Contrasting past accounts, current popular musicians perceived both notation and ear proficiencies to have benefitted their learning

[109] Correlating with existing literatures' assertion that the creation of original music over playing covers was favoured by younger musicians

[110] This was acknowledged even by those in the 'I' category who showed little regard for notation.

[111] Which simultaneously contributed towards the argument for the separated observation of notation from formal learning environments.

and developing processes. Notation opened up alternative avenues of learning, reduced the burden of memorising the music and instilled discipline, while ear skills aided improvisation, the realisation of conceived musical ideas, and the acquisition of notational knowledge.

However, over-reliance on either skill set was potentially debilitating as well, for it might discourage the motivation to improve the other skill set. Furthermore, situations that prohibited the utilisation of skill sets that were over-relied on, would result in anxiety and insecurity for the musician.

In summary, apart from the influence of parents in the engagement with FPML, lived experiences in one's social and cultural world did not appear to possess significant bearings on the various routes of learning. Additionally, learning histories were influencial in the relationships between preferences and aspirations, the attitudes towards FPML and values assigned to notational knowledge/skill, but not on the perception of notation- or ear-based abilities' benefits and drawbacks.

RQ4: To what extent do the learning backgrounds of popular musicians influence the acquisition of musical skill?

The findings reported in this subchapter revolves around:

1. Identified result disparities among the four learning context categories
2. The examination of the interviewees' test results within the context of their musical backgrounds

This subchapter contains four subsections, each section concentrating on one skill in relation to the matters stated above.

1. Sight-Reading (SR)
2. Play by Ear (PbE)
3. Improvisation
4. Prepared Performance (PP)

All interviewees are referred to as 'representatives' in this subchapter to denote that they are the representatives of their respective categories.

Sight-reading (SR)

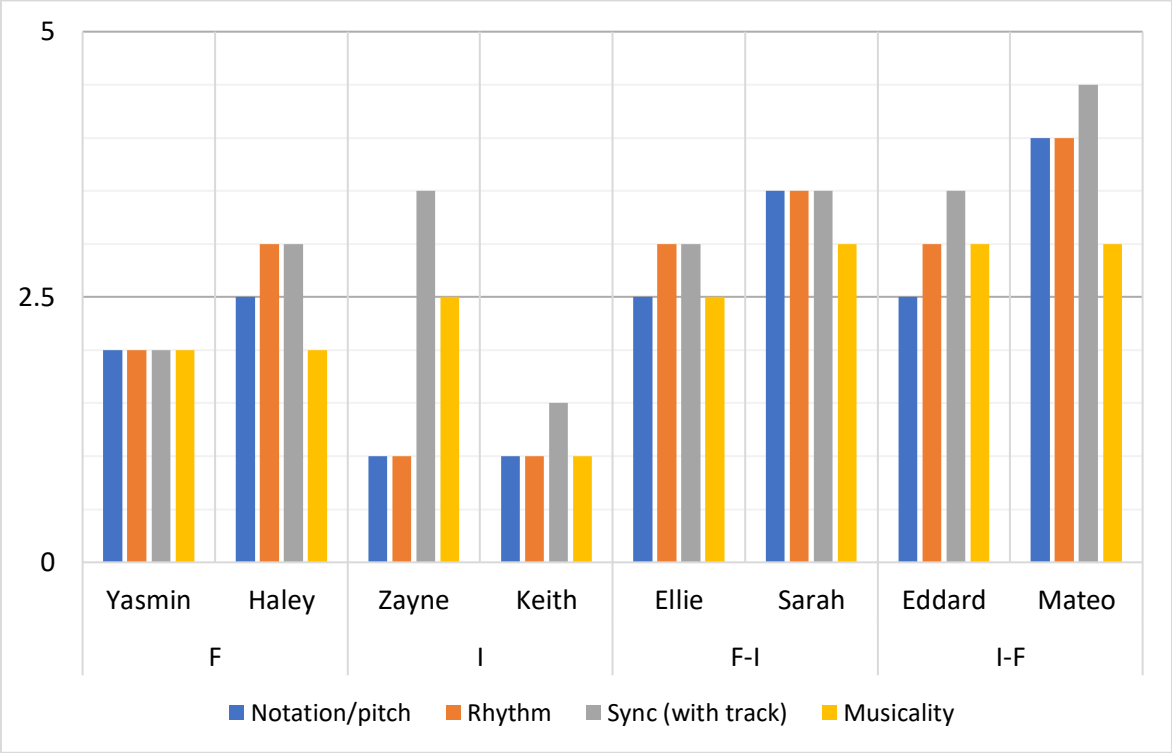


Figure 33: Results from the Sight-reading test

Given the knowledge of Zayne's and Keith's music backgrounds, it was understandable that they, both representing the 'I' category, would perform poorly in this test. However, despite lacking the fluency in understanding the notes put in front of them, both of them displayed a willingness to give it a go; observed in their attempts to 'guess' the notes they needed to play/sing by listening to the backing track. Despite knowing he could not meet the requirements of the test, Zayne improvised and produced performances that were adequately musical even though the rhythms and pitches were not always in one accord with the backing track. Furthermore, both Zayne and Keith were very aware of the pulse and groove of the track, as can be seen from Zayne's score for 'Sync' and 'Musicality'. Keith's low scores in these areas, appearing to contradict this assertion, was the result of keeping silent for large parts of both sight-reading test items, and singing too softly. In parts where he did sing and it was audible, he displayed a good grasp of the pulse and groove. In fact, there was a pattern among those who were primarily ear-players (Zayne, Ellie, Sarah, Eddard and Mateo); they were more aware of the pulse of the music (timekeeping) and

were more musical in their responses (they were not just trying to reproduce the notes on the score).

Representatives of the 'F' category did not fare too well in this test, albeit slightly better than the 'I' category. While Haley's was marginally better than Yasmin's, her performances lacked a degree of musicality as sensitivity to the tone of the notes she played was less observable. She also displayed more cautious behaviour, choosing to disregard and not play notes that she could not learn in time. This approach was not atypical of trained musicians who were experienced in sight-reading exams; skipping what could not be learnt in time and focusing on notes/bars that could potentially 'score points'. In Haley's case, she focused on playing the hi-hats and snare as closely as possible to the written excerpt and had a more laissez-faire approach with the bass drum.

Overall, interviewees who had a combination of formal and informal learning experiences performed better in the sight-reading test; compared to the 'F' and 'I' categories, those in 'F-I' and 'I-F' scored equally or better in all areas assessed. Eddard and Mateo (I-F) performing significantly better than Zayne and Keith (I) in this test was clearly due to the differences in familiarity with music notation, and the juxtaposition of the performances of Yasmin and Haley (F) with Ellie and Sarah (F-I) indicated that the integration of informal music-making practices (specifically the development of ear-based skills) facilitated sight-reading abilities. Both representatives of 'F-I' fared equally well compared to, or better than, their 'F' counterparts in all aspects. While it was demonstrated in previous subchapters that practices were no longer exclusive to specific learning contexts, the data also indicated that 'formal-notation' and 'informal-ear' relationships were still prevalent. FPML was still dominated by notational practice (Figures 7 and 9) and IPML was still largely characterised by ear-based practices (Figures 19, 21 and 22). As a result, there were observable disparities in their use of, and reliance on, notation- and ear-based practices as noted in earlier chapters, for Sarah and Ellie integrated ear-based skills into their music-learning and -making practices to a much higher degree.

All four of them had similar formal experiences, including PWCMT, learning to play popular music from notation in their classical instrumental lessons, and interacting with popular music's informal music-making practices in HPME. However, where they differed was the extent that ear-based skills were integrated into their practices. There was integration of practices on Haley's and Yasmin's part, but it was not as extensive as Sarah's and Ellie's. While this could be because Sarah had graduated and entered the industry full time (and interacted with informal musicians), Ellie was still in the thick of her HPME journey, just as Yasmin was (Haley recently graduated). Thus, the key difference was that Ellie embraced the practice of playing by ear and was in the midst of transitioning into an ear-based musician with notational skills, while Yasmin and Haley remained largely reliant on their established notation-based learning habits[112]. The pieces of evidence here indicated that the use of music notation in one's practice alone did not necessarily translate into sight-reading proficiencies. Furthermore, it correlated with findings from numerous studies that listening skills facilitated sight-reading abilities[113].

However, between both combination groups (F-I and I-F), Mateo scored the highest in all areas (he produced nearly accurate performances of the music that was adequately musical). His performances suggested that the sequence in which one experienced informal and formal learning, and in extension, ear- and notation-based practices, might prove crucial, though evidence here were not conclusive. In addition to that, Mateo's performance in this test suggested that values mattered as well, but not on its own. Both Haley and Mateo were advocates for notational abilities, yet Mateo performed significantly better than Haley. He also outperformed his peers in the combination groups who did not value notation in similar ways (he put in more effort to ensure he could reproduce an accurate performance of any written music). Therefore, this pointed towards the conclusion that reliance and high values placed on notation did not translate into satisfactory levels of sight-reading skills, but instead it should also be credited to good notation reading skills underlined by dependable ear-based abilities.

[112] Explaining the reason for Ellie's characterisation of her learning journey as 'F-I' despite the overwhelming overlaps with Haley's and Yasmin's characterisations.
[113] Hayward and Gromko (2009); Luce (1965); McPherson *et al.* (1997); Musco (2009); Woody (2012); Woody and Lehmann (2010).

Play by Ear (PbE)

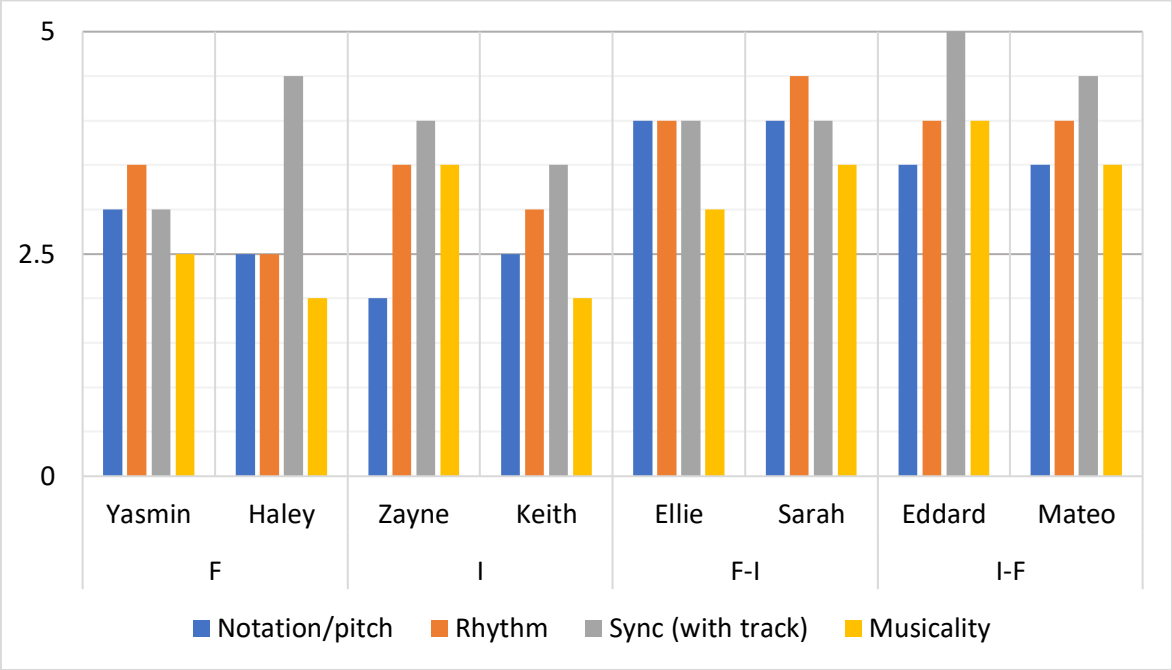


Figure 34: Results from the Play by Ear test

As evidenced in Figure 34, the combination categories outdid the 'F' and 'I' categories in the PbE test as well in almost all regard. However, between the combination categories, 'F-I' scored marginally better in terms of pitch, while representatives of 'I-F' had better timekeeping skills (Sync). The 'F' category scoring lower points than the combination categories in this test could be explained by the differences in practices as discussed in the SR test, but the 'I' category's results required more complex understandings. Musicians from the 'I' category were largely ear players, thus, it was expected that they would attain favourable results in this test. However, their results were not at the same levels as the 'F-I' and 'I-F' categories, but instead were comparable with the 'F' category.

The justification for the 'I' category's low score in sight-reading was relatively straightforward, but their performances in the PbE test must be understood within the context of the examination characteristics. Judging by their accounts, both Zayne and Keith had limited to no experience with musical examinations; Zayne developed his skills entirely outside the confines of formal institutions, and Keith (at the point of the interview) just embarked on his formal popular music learning journey. Musical examinations have a structured and constrained infrastructure; a defined musical goal, to accumulate maximum

points with limited chances within a restricted timeframe. Keith's results could be solely accredited to his inexperience with the constrains of learning a melody by ear within a limited time frame, but it was observable that Zayne had little concern for scoring points when compared to his counterparts with examination experiences. While others were careful to reproduce the pitch and rhythm as accurately as possible (with or without mistakes), Zayne naturally improvised in parts that he could not learn (or possibly did not want to learn) in the given time limit.

This observation was most apparent in the juxtaposition of Haley and Zayne's responses to the SR and PbE tests. Haley's performances in both tests resembled an individual who valued accuracy of notes over the performance within the context of a musical whole; conservatively playing as many right notes as possible with little concern as to how those notes sounded in a musical context (as evidenced by her score for 'Musicality'). Conversely, Zayne displayed more concerns in playing a musical response over an accurate one.

Haley was arguably a quintessential example of a musician whose musical development only took place within the boundaries of formal environments, where progress was determined by the points accumulated in assessments, similar to the ones in this study (points awarded, in a segregated manner, for compartmentalised aspects of a performance). Therefore, it was common practice to strategically concentrate on areas/parts that might return maximum points at the expense of areas that were preconceived to return poor results. In Haley's case, her attention to note accuracy to retain maximum points, came at the expense of musicality. On the contrary, Zayne's development was never measured by formal assessments but instead validated by peers and respected musicians in the industry. The feedback received were more holistic in nature, such as the stern advice received from a seasoned musician that musical proficiencies were subservient to the instrument being in pitch.

Both Haley and Zayne's approaches to this study's musical tests were thus arguably partly rooted in the ways in which the observation of music was enculturated (compartmentalised or as a whole). Additionally, Zayne also disclosed in his interview that this improvisation-inclined approach was one he adopted, in part, due to his lack of

discipline to play strictly as requested. Instead, he preferred to draw inspiration from the music. Recalling an exchange with a producer that once asked Zayne to record some bass lines note for note, he replied to the producer:

> *'You should just call the music students and they can play exactly what you want, but if you call me then you know I can't do this, I can simplify it and play variations of it, but at the end of the day I just play what I feel'.*

Crediting Zayne's and Keith's 'play by ear' scores to the constraints of the test parameters were not unfounded, nor mere speculation. Feichas' (2010) study found that informal musicians' who were well versed in play-by-ear and improvisation skills faced difficulties displaying the extent of their proficiencies within formal contexts. Furthermore, both Zayne and Keith thrived in tests that allowed them more freedom (improvisation). In comparison, the 'play by ear' test had pitch, rhythmic and time constraints to be adhered to. Thus, they had to direct some of their focus away from performing the music as they usually would, towards identifying and accurately replicating the specific notes they had heard.

Examining the aspect of musicality further, it could not be convincingly credited to a specific learning route. However, the common link between representatives that obtained favourable marks for musicality, were those that reported heavier use of their ears in their practices (I, F-I, and I-F); Zayne, Eddard and Mateo were habitual ear-players, while Ellie and Sarah began using their ears extensively in recent years. Keith was the only exception, but as explained earlier, he was comparatively early in his musical journey and struggled to manage the constraints of the test, leaving lesser leeway than usual to focus on musicality[114]. Excluding Keith, 'F' was the only category where the representatives' scores did not pass the 2.5-point line. Yasmin and Haley who were notation-reliant, in terms of internalising and observing music, did not score beyond the passing mark for musicality in both SR and PbE tests, lending credence to the conclusions of prior studies on the purported link between 'experienced ears' and musicality[115].

[114] It should be noted that Keith struggled with the second excerpt which brought down his overall score, but musicality was the only aspect he consistently scored two points.
[115] Woody and Lehmann (2010); McPherson *et al*. (1997); Green (2002).

Once again, a combination of formal and informal learning experiences proved beneficial in the acquisition of musical skills, and in the case of playing by ear, the 'F-I' learning route was slightly more advantageous in terms of picking up the correct notes, but 'I-F' demonstrated better performances in timekeeping. While evidence here favoured the combination categories, it should be reiterated that the relatively lower scores from representatives of 'I' should not be understood superficially for reasons discussed above. Also, the propensity to put on a musical performance in a test were traced back to greater reliance and habitual use of ear-based practice.

Improvisation

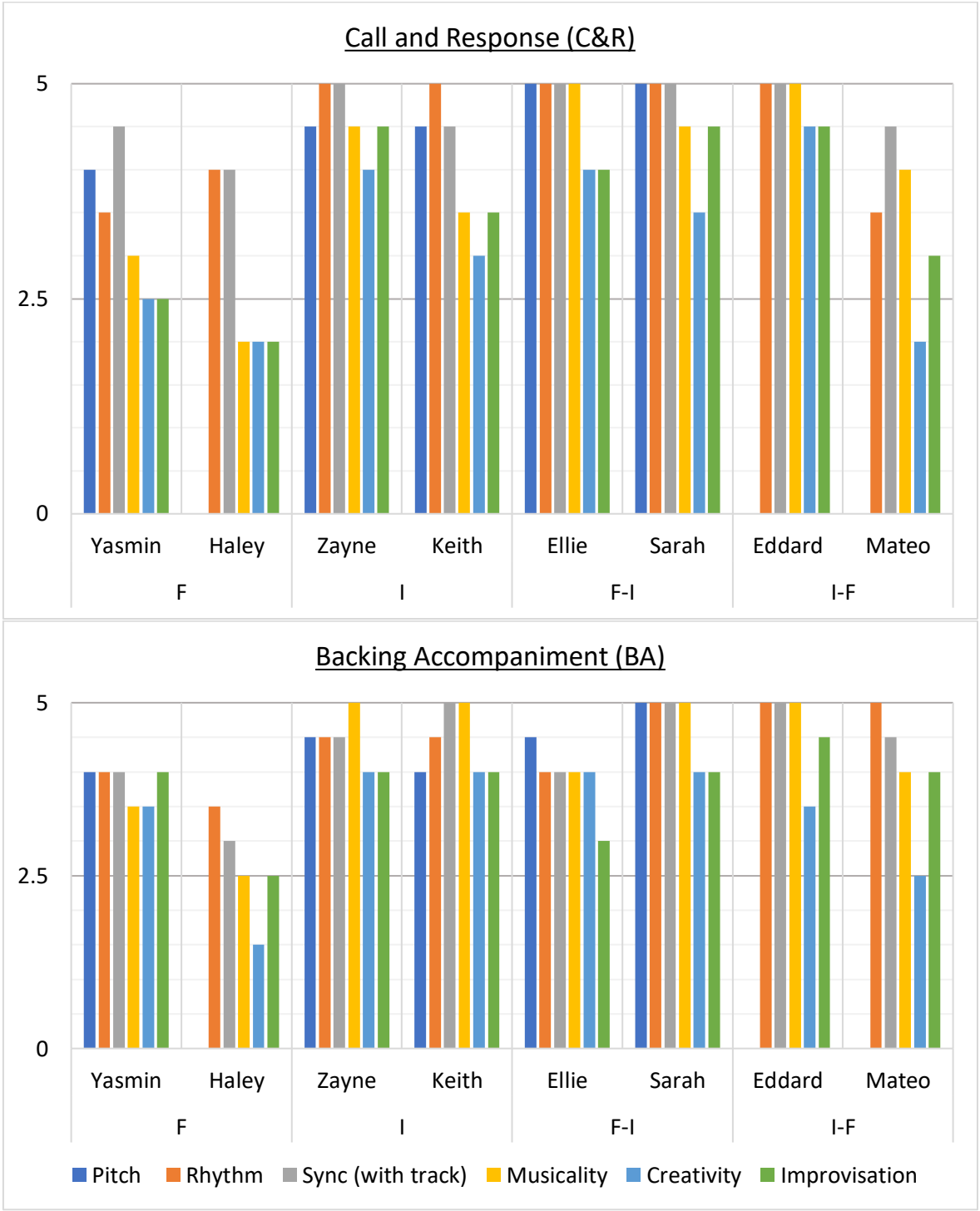


Figure 35: Results from the Improvisation tests

As can be seen in Figure 35, this was where the 'I' category thrived (Zayne and Keith); in comparison to the SR and PbE tests, they performed significantly better in all areas of the Improvisation test. Furthermore, they produced their best performances in the context of

the least constrained test; Backing Accompaniment (BA). Unlike Call and Response (C&R), where they were expected to improvise a 'response' to the 4-bar 'call', BA was an empty slate where they could respond organically to the backing track. Therefore, the BA test afforded the musicians more freedom than the C&R test. Nearly akin to how popular musicians in the past proclaimed to struggle with the constrains of formal training, this test result demonstrated that Zayne and Keith struggled similarly with constrains (PbE) but were able to perform at ease when more freedom was afforded to them (Improvisation).

Whilst representatives of 'I' excelled overall with more freedom, those in 'F-I' and 'I-F' performed better in C&R in almost every regard[116]. Compared to BA, C&R provided them relative structure, and they anchored their improvisations on the given idea. This purported that though they improvised well overall, their improvisational skills were facilitated by some form of musical structure, such as referring to a line/beat/idea. In fact, while the backing track for each test was played twice (the first for listening and the second to record the response), Eddard immediately responded (improvised) on the first playback of the C&R backing tracking after hearing the 4-bar 'call' (and waived the second playback).

Yasmin's and Haley's (F) improvisations were not at the same levels as their contemporaries in the other categories. While Yasmin's performance was better in comparison, Haley struggled with non-technical aspects (musicality, creativity and improvisation), which could be because she did not improvise frequently, nor did she work on the art of improvisation unless necessary (Figure 7). Regardless, this contrast between 'F' and all other categories in improvisation skills was notable.

The Improvisation tests were where all the representatives displayed a strong sense of rhythm and timekeeping. Additionally, this was also where they demonstrated the extent of their musicality, each scoring more points in 'Musicality' in this test than the SR or PbE tests, suggesting that the 'freedom' argument above could be applied in this regard as well. While there were better demonstrations of musicality from representatives of 'F' in this test, it was still comparatively lower than the other categories.

[116] This test begins with a 4-bar given idea (call), and they would improvise the next four bars (respond).

In addition to that, creativity in improvisations was most significant among musicians who immersed themselves in informal music practices and according to their accounts, were heavy ear-users (Zayne, Keith, Ellie, Sarah and Eddard). This correlated with assertions from McPherson and Gabrielsson (2002) and Woody (2012) that ear-abilities were crucial to improvising. Only Mateo's score for 'Creativity' was irregular, which was due to his improvisations being largely groove-based with little variations.

The combination of formal and informal learning backgrounds appeared to be facilitative but not without limitations, for the representatives performed best with some level of pre-existing structures (C&R). Representatives of the 'I' category performed equally well in this test as well, but they fared better with more freedom (BA). Despite performing better in the improvisation tests, the results of representatives from the 'F' category were still lower than the others, and a similar discovery was also detected in the examination of musicality and creativity.

Prepared Performance (PP)

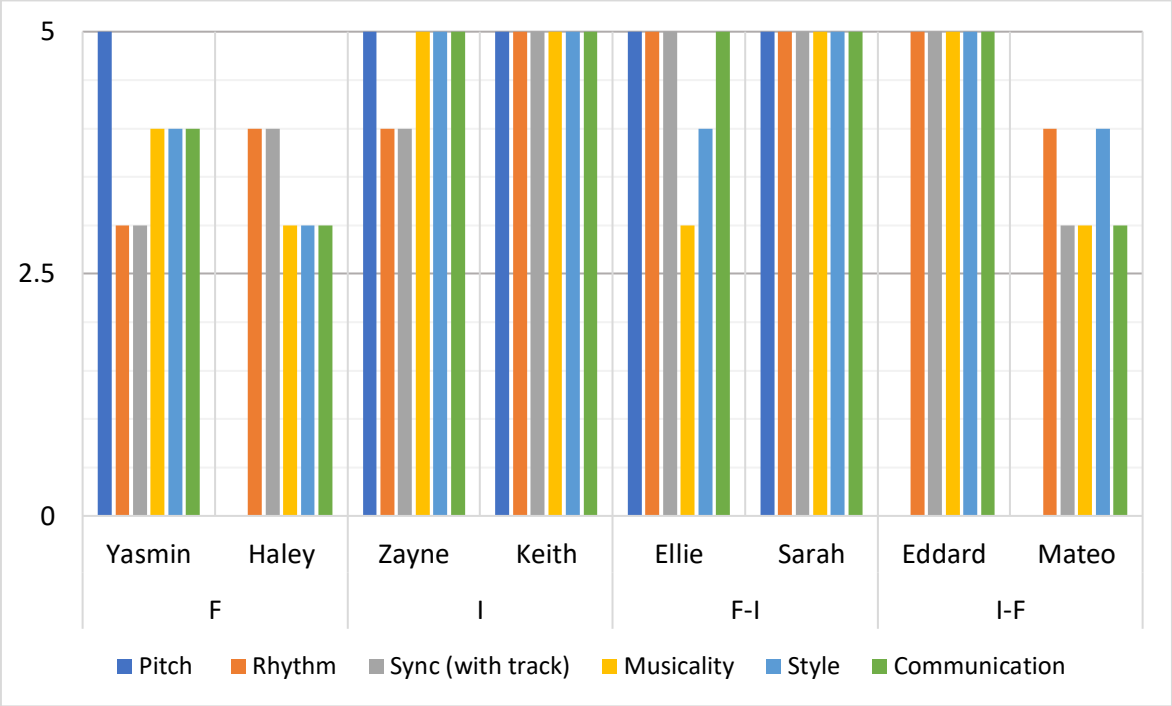


Figure 36: Results from the Prepared Performance test

Surface level scrutinisation of the Prepared Performance (PP) test results showed that the performance levels of Yasmin and Haley were poorer than those in other categories (except Mateo, to be explained later). Both submitted pre-recorded performances of jazz-funk fusion styled music in a trio setting, and it was observable that while both played from memory, Haley's performance resembled an attempt to accurately reproduce memorised music.

Haley's performance gave the impression that she was playing every note as planned (including her solo section), as it looked/sounded written and prepared, as opposed to improvising and reacting to the interactions with her fellow musicians on stage. While it was acknowledged that musical performances (excluding jam sessions to some extent) encompassed preparation and planning, there were usually allowances to respond spontaneously to the music in the moment. However, this characteristic was not observable in Haley's performance, and it gave the impression of being more concern with accurately reproducing the pre-planned notes, over sensitivity of the notes played (tone).

In addition to that, her performance lacked conviction as it primarily comprised of relatively simplistic drum patterns and fills for a jazz-funk fusion song. Therefore, while her rhythm and timekeeping were secure overall, other areas (sensitivity of the music, stylistic understanding and detail, and communication of the music) were compromised. This finding was not unusual as Woody and Lehmann's (2010, p.109) study found 'most formal musicians consciously focused on fingerings, slide positions (trombone), and mallet strokes (percussion)'. Their conscious attention was primarily devoted to physically translate the notes on the score into sounds on their instruments.

Yasmin's performance displayed relatively more attentiveness to musicality, stylistic detail and communication, but she did not fare as well in rhythm accuracy and timekeeping skills. Jazz-funk music is usually characterised by complex rhythms and syncopation that required intense rhythmic proficiencies to accomplish. In her performance, there were times when the tempo fluctuated, or her rhythm was off, especially during her solo section.

Eddard too submitted a pre-recorded performance of a jazz-funk tune, in a trio setting, but in contrast to Haley's and Yasmin's, his performance was noticeable more convincing. The band was tight and highly engaging, and he displayed an intrinsic understanding of the style and the realisation of musical details. His rhythm and timekeeping were extremely secure throughout, and this was demonstrated in his solo section, where he played around with rhythmic groupings and subdivisions without losing the pulse. Furthermore, his execution on the drums was highly musical, extracting a variety of tones from the drum set that was appropriate for the music. This sensitivity to tone was also observed in the BA test; upon hearing the backing track once, he picked up his phone to position it at the edge of the snare drum to modify the sound of the drum.

Sarah was equally convincing in her performance; she submitted a pre-recorded performance of a progressive rock song, in a five-man band setting, in which she played the keyboard parts that were superb in all aspects examined. There were multiple instances where her attention to the music was detectable, especially in terms of dynamics and articulation, and she also showcased her proficiencies in rhythmic complexities and

timekeeping skills when she played a unison line with the guitarist, which was extremely tight.

Mateo too submitted a performance (live) of him playing the drums to a backing track of a progressive rock song that was extremely demanding technique-wise. Nearly akin to Haley, his performance lacked conviction, but in different ways. While Haley's performance lacked musicality, Mateo's was observed to have lacked adequate preparation. There were occasions where he lost the beat of the song and had to stop playing to get reacquainted with the pulse. Furthermore, throughout the whole performance, his eyes did not leave the score that was in front of him. Noting his earlier assertion that once the song was internalised, the score would have served its usefulness and be put aside, this did not occur in the performance he submitted for this study, rendering the conclusion that this was an underprepared performance. Therefore, his score for this test may not reflect his proficiency levels in a prepared performance.

Examining the performances of Yasmin, Haley, Sarah, Eddard, and Mateo led to a discovery of a common thread; they opted to submit performances that were technically demanding. This finding provided evidence to support the earlier assertion regarding the values assigned to technical proficiencies in HPME (Figure 5), as all of them were either current students or graduates of popular music programmes in Higher Education Institutions. Even Sarah decided to showcase a technically challenging song over a 'simpler' one, despite her attitude towards HPME values. Even though it was emphasised on the onset that this was not an examination, it was still an institutional enquiry into her musical strengths. Thus, this might have led her to believe that similar to her prior experience with formal assessments, the definition of a good performance in this study was one that could demonstrate her technical proficiencies.

In some ways, this argument of intuitional values was also applicable to Haley's performance, for it was revealed in her interview that her HPME programme gave her the impression that tightness of the performance was valued above everything else. Therefore, her focus on those areas (rhythm and sync), arguably at the expense of other aspects (musicality, style and communication), was reflected in her performance.

The only musician with formal training (including HPME) who opted for a 'simpler' song was Ellie. She submitted a video recording of a K-Pop tune within the context of a solo piano performance. As she was performing solo, she was in control of the pulse, and though the tempo fluctuated, it was purposeful as commonly observed in many performances of this type. However, sensitivity to tone, dynamics and articulation was relatively lacking in her performance.

Keith was another musician who opted to submit a solo performance, but of a song he had written, and performed in the singer-songwriter style (played the guitar and sang). It was here that he demonstrated the extent of his musicality. The performance was highly engaging, musical and an excellent example of a singer-songwriter performance. Just as it was for Ellie, he was in control of the pulse and the purposeful pushing and dragging of the tempo, which was conventional for this kind of performances, was aptly done. His performance here further purported the notion that he thrived musically in contexts where freedom was afforded, as did Zayne's.

Zayne's submitted performance was the most unique among the interviewees; a slow R&B styled groove in the context of a one-man-band. He used a looper to create a groove entirely on the bass guitar (a cajon-inspired rhythmic track and a harmonic track that mimicked the electric guitar) before improvising the entire performance. Akin to Keith's performance, Zayne's was highly engaging and musical, and he demonstrated the creative musical possibilities that were achievable solely on the bass guitar. However, there were moments when his rhythm and timekeeping were off.

Overall, there was a clear contrast between the performances from the representatives of the 'F' category and the other categories. However, the most extreme instances were between the 'F' and 'I' categories; the former did not outperform the latter in any of the aspects examined. Furthermore, looking beyond the differences in learning contexts, the strong sense of musicality, understanding of style, and communication of the music, were most common among representatives who had greater ear-reliance in their practices. In regard to the role played by the engagement sequence of formal and informal learning, the

results here were inconclusive as not all representatives from the combination categories submitted performances that demonstrated the extent of their musicality. Lastly, there were also evidences to suggest that interviewees' perceived values of formal institutions, governed their decisions of the type of music to perform, and how to approach the performance of the music.

Summary

Comparisons of the test results among the four categories, and examinations of those results within the context of musical backgrounds, revealed several findings, which are organised here according to the four context categories, notation- and ear-reliance, and values and attitudes.

First, representatives of the 'F' category performed the poorest among all the categories in every test, except sight-reading (of which the 'I' category obtained the poorest results). Cautious behaviour towards the tests was also most prominent in this group, and areas such as musicality, creativity, improvisation, style and communication were not of similar levels to the other categories.

Second, representatives of 'I' performed best with limited restrictions, affording them allowances to express themselves and to play what they want; their best performances were observed in PP, followed by BA, C&R, PbE and finally, SR. Though both Zayne and Keith had been playing by ear for extended periods, they arguably had little to no experience in performing the skill within the confines of a test. Hence, the test results, showing their proficiencies in PbE to be of similar levels with those in 'F', should not be viewed cursorily. In comparison to the 'F' category, there were no observable concerns by this category's representatives to accumulate maximum points for each test, but rather the focus was seemingly more on the music itself (how/what to fill up the bars not learnt in time).

Third, the combination categories (F-I and I-F) performed better overall in all tests and aspects examined, but there were instances of disparities observed between them. Comparison of the 'F' and the combination categories' performances in the SR test added further evidence to the notion that listening skills facilitated sight-reading abilities. However, the findings also suggested that the engagement sequence of notation- and ear-based skills mattered, for the best result derived from the 'I-F' category. The results from the PbE test also indicated this sequence to be a potential influence. Though results from both categories were within a similar region, 'F-I' representatives scored better in

pitch/note accuracy while 'I-F' fared better in timekeeping (Sync) skills. In terms of the results from the improvisation tests, there was no indication that the sequence had any meaningful impact, but instead were determined by the level of structure provided beforehand. Unfortunately, the findings derived from the PP test were inconclusive to determine the role that the sequence might have played, for it was determined that not all submitted performances showcased the extent of their musicality. However, there were arguably sufficient evidence to suggest that a combination of formal and informal learning was facilitative overall.

Looking beyond the confines of the four categories led to the fourth and fifth points. Regardless of learning histories, representatives either heavily, or entirely, reliant on ears in their practices demonstrated better timekeeping skills, displays of musicality, creativity, understanding of style, and communication of the music. This notion was mentioned by the participants in Green's (2002, pp.73-76) study as well. By contrast, those with a heavier reliance on notation (due to learning primarily from notation) demonstrated the least displays of musicality, and their overall performances were not at the same levels as their ear-reliant contemporaries. The most prominent example was Haley. However, this included Mateo as well, who was arguably the most notation-reliant among the ear-playing musicians; he only outperformed his ear-playing peers from the 'I', 'F-I' and 'I-F' in the sight-reading test.

The fifth point revolved around the subject of values and attitudes. The clearest example was the contrast between Haley and Zayne, in the SR and PbE tests, where the influence of values from formal and informal realms on musicians' attitudes were made explicit. Institutional values were similarly observed in the choice of performances submitted for the PP test by those with FPML experiences, for a majority of those who were past or present students of HPME chose to submit performances of songs that were technically demanding.

In summary, certain musical proficiencies, traits and characteristics could be traced to distinct musical backgrounds. The performances from the 'F' category presented the most issues in all the tests, 'I' performed significantly better with fewer constraints, while the

combination categories (F-I and I-F) performed consistently well overall. There was some evidence to suggest that the engagement sequence of formal and informal learning was a potential influence in certain proficiencies, but the differences between the "F-I' and 'I-F' were minute. Patterns also emerged beyond the borders of the four categories, along the lines of habitual notation/ear practices, and attitudes and values.

CONCLUSION

This final chapter discusses the main findings in relation to the research objectives and the key contributions to new knowledge. Moreover, it will address the limitations and the validity of the findings, followed by suggestions for future research, and the significance and implications of this study's achievements.

Summary of Key Findings

In the attempt to understand the extent in which musical learning experiences influenced proficiencies in various musical skills, this study first examined the learning routes and musical practices engaged by current popular musicians in relation to those from the past, to demonstrate the evolution of learning culture that have occurred since the 1970s. From there, an analysis was carried out to determine the ways in which the various routes of learning resulted in engagement and reliance disparities in musical practices. Next, the relationship between limited socio-economic factors and prescribed routes of learning were assessed. This was followed by an analysis of the discrepancies observed among the various learning routes in terms of aspirations, and values and attitudes towards notation- and ear-based proficiencies. Finally, these details (learning histories, practices, aspirations, values and attitudes) were used to understand the disparities in sight-reading, play by ear, improvisation and prepared performance proficiencies.

Current Landscape

It was clear that the landscape of today's popular musicians' learning backgrounds did not bear much resemblance to those in the past, for FPML was found to be prevalent among them. IPML, commonly experienced by past musicians, was still widely practised in recent times, but a majority of popular musicians had extended periods of FPML as well. Furthermore, a majority who engaged with a combination of formal and informal popular music learning commenced with FPML. Influential factors that contributed to the high volume of engagements with FPML were prior experiences with WCMT, unawareness of other learning methods, and/or the perception that FPML was a viable path towards a

professional career. In addition to the engagement with FPML, PWCMT also potentially contributed to the increasing numbers of pianist/keyboardist among popular musicians.

The dominant presence of FPML among current popular musicians manifested itself in the form of engagement with HPME as well. The characterisation of the programmes in terms of music theory, technical/creative proficiencies and notation/ear-based practices did not differ significantly from those examined in 2012 (published in 2013 by Cloonan and Hulstedt). Additionally, such pedagogies were argued to have contributed towards the tensions between popular musicians with formal training and those without. This included the loss of individuality, and the high regard towards music theory, technical proficiencies and notation-based skills.

Popular musicians today did not always enjoy full autonomy in the learning process, for instrumental tuition, as experienced by a majority of recent popular musicians, was mostly a disciplined and structured learning route where teachers determined many aspects of the process. However, restricted student autonomy levels were not always caused by the constrains of formal learning, but also dependent on the teacher's pedagogic style and philosophy. This disciplined and structured method of learning cultivated in students, a habit of relying on external sources in their musical progress, which also resulted in a reduced level of self-motivation (in comparison to musicians with no FPML experience). There were also disparities between HPME (or advance) and non-HPME (or beginner) instrumental tuition. Improvisation was generally taught at the HPME (or advance) level, and notation primarily used as a tool to introduce new materials only. Non-HPME tuition (or beginner), on the other hand, did not always encompass improvisation and there was an emphasis to learn only from notation.

IPML was characterised as a mode that afforded agents autonomy to decide what and how to learn (including following a syllabus), but working musicians also operated on a needs-based policy. Core activities included self-experimentations, improvisations and the use of various instructional content, while self-learning of graded examination materials was not uncommon as well.

Not all current popular musicians engaged in PLAs, but for those that did, these activities primarily comprised of organised sessions and/or observation of others, and to a lesser extent, casual interactions with peers. While these activities could occur at any time and place, HPME and performance settings were found to be conducive environments for PLAs. References to covers and instructional/cover videos on YouTube were gradually becoming a staple in popular music practices. While listening and copying was still a central practise, various forms of notation were used to facilitate the learning process and to function as a memory aid. Though widely used, reliance on notation varied and could be linked back to initial engagements with ear- and notation-based practices.

Digression From the Past

Unlike past accounts, a majority of popular musicians experienced institutionalised popular music learning. Furthermore, it was common to have sustained periods of WCMT, positive attitudes towards the learning of music theory, reduced levels of autonomy and self-motivation, and to not engage in PLAs (including those only with informal experiences). Besides that, notation was widely used and relied on, sometimes to the extent of becoming central to the music practice. There was a wide use of technology-induced tools that were not available in the past as well. Also, popular music graded examination materials were also frequently studied, both in lessons and through the act of self-learning. Lastly, while many still struggled to adapt to a different mode of learning, a majority did not find the process difficult.

While the current landscape of popular music learning culture depicted here was far removed from earlier learning experience accounts, given the bourgeoning of formalised popular music instruction and technological advancements that have taken place, this landscape was within the projected trajectory of the learning culture evolution.

Diversity of Musical Practices in Current Landscape

Diversity of musical practices among the ‘F’, ‘I’, ‘F-I’ and ‘I-F’ learning routes were evident, but the most notable factor affecting discrepancies was the occurrence of FPML. The first observation was the differences between those that commenced their popular music

journey with formal learning ('F' and 'F-I') and those with informal learning ('I' and 'I-F') in terms of self-motivation levels and engagements with PLAs. Musicians who started with FPML were more likely to have reduced levels of self-motivation than their informal counterparts. They also had the least engagements with PLAs, and those activities usually took place after sustained periods of individual activities. However, despite engaging in PLAs, not all enjoyed the PLAs and preferred solitary activities. Contrastingly, those who began with IPML not only participated in PLAs to a greater extent, but also earlier on in their musical journey, though solitary learning during periods of IPML was not uncommon as well.

The second observation was between learning histories that comprised of FPML (F, F-I and I-F) versus those that did not (I). Engagement with FPML, in general, was the cause of greater reliance on notation-based practices. In comparison to the 'I' category (most likely to engage with ear-based practices only), notation was most widely used in these categories (F, F-I and I-F). Though, it was more likely to be a central practice for those in the 'F' category, while 'F-I' and 'I-F' musicians were more likely to use notation only as a supplement. Additionally, both 'F-I' and 'I-F' categories used and relied on notation to a greater extent only during periods of FPML. However, there were also instances of complete informal musicians cultivating a heavier reliance on notation-based skills (possibly due to the accessibility to learning tools and knowledge), and complete formal musicians developing a heavier reliance on ear-based skills (conceivably as a result of the incorporation of informal learning practices into formal learning).

The third observation was between the combination categories. The sequence in which FPML and IPML were engaged with yielded influence on the engagement levels of various tools and practices, and reliance levels on notation- and ear-based practice, after experiencing a different mode of learning. However, the sequence bore no influence on the eventual engagement and reliance levels. Furthermore, in comparison to the 'I-F' category, 'F-I' musicians tended to be less self-motivated and more likely to have delayed engagements with PLAs. Lastly, while musicians from both 'F-I' and 'I-F' categories increased their engagements with instructional/tutorial videos, the engagement levels of those from the 'I-F category were significantly greater. Though musicians from both

categories initially faced difficulties adapting to a new mode of learning (FPML to IPML, and IPML to FPML), the practices from the new learning modes were eventually integrated into their habitual systems of learning and practice.

The last observation was that the music practices of the 'I' category did not diverge much from the characterisations of popular music's informal music learning practices. They were still highly engaged in what Green (2002) characterised as central practices of informal learning; listening and copying and PLAs. However, while they remained largely ear-reliant, the use of notation in their practices was no longer uncommon.

Factors Influencing Learning Routes, Aspirations, Attitudes and Values

Engagements with FPML (and WCMT) was heavily linked to various parental factors, including support/approval of choice of music and instruments, financial support, and for some, compulsion of attendance. The same could not be said for IPML. In fact, there were fewer parental involvements in the commencement of FPML after sustained periods of IPML. However, parents/guardians' musical, educational and occupational backgrounds possessed little influence on the learning routes taken or engagements with HPME.

Aspirations to develop into musicians with avenues for creative expressions were most commonly expressed. Some had concurrent desires to engage in session work, while others earmarked creative endeavours only for the future as they established themselves as session musicians for financial reasons. However, the creative identities they desired differed. Those that had informal beginnings were more likely to prefer playing original music that they created, while those with formal beginnings might prefer displays of creativity that did not comprise original music, such as music arrangements. Furthermore, aspirations and song preferences were not always definite, and could change with time.

Attitudes and values observed were similarly divided along the lines of learning routes. Feelings of restriction in instrumental lessons were primarily expressed by those who engaged with FPML after sustained periods of IPML, despite seeking out formal training on their own accord. Those with formal beginnings ('F' and 'F-I') perceived a heavier emphasis

on ear-based practices in HPME, while their informal counterparts ('I-F') perceived notation in the same light. Additionally, high regard towards notational skills were only expressed by popular musicians who engaged with FPML and/or had current or previous engagements with session work (benefits in music practices and essentiality in professional settings).

However, there were areas where the diversity of learning backgrounds bore no influence. Ear-based abilities were considered crucial by all, as the essentiality and benefits were far-reaching in performance settings. Similarly, many advocated the belief that a popular musician's learning process and development can benefit from both notation and ear proficiencies, but also noted that over-reliance on either skill set was potentially debilitating.

Diversity in Musical Proficiencies

The test results revealed diversities that manifested in the form of musical proficiencies, and these were traced to various aspects of learning histories; routes of learning, reliance on notation or ear, and attitudes and values that were enculturated by learning experiences.

A learning history comprised of a combination of FPML and IPML was most conducive to developing proficiencies in sight-reading, play by ear, improvisation and prepared performances. There were pieces of evidence to suggest the sequence in which FPML and IPML were experienced played a role as well. Musicians who experienced FPML after sustained periods of IPML developed better sight-reading proficiencies and ability to keep time overall, while those who experienced a reversed order of learning methods were better at reproducing an auditorily prescribed pitch/note. However, the differences between both groups were not significant. Improvisation proficiencies, on the other hand, were not affected by this sequence, but rather by the level of structure provided beforehand.

As expected, the sight-reading proficiencies of complete informal musicians were inadequate. However, their proficiencies in other skills that comprised ear-based skills were subjected to the level of structure in which they needed to perform as well; they thrived in performance scenarios that allowed them the freedom to express themselves musically (Improvisation and Prepared Performance). Therefore, though they were primarily ear-players, they struggled with the constraints of the Play by Ear test.

In contrast to the other learning routes, complete formal popular musicians did not demonstrate proficiencies that were on par with the other musicians in all tests, except sight-reading. They also struggled to display proficiencies in musicality, creativity, improvisation, style understanding, and communication of the music, that were comparable with their contemporaries. However, these deficiencies (musicality, creativity, etc.) might not solely be the consequences of formal learning. Instead, it might also be linked to the reliance on notation in their practices.

Similarly, the impacts of formal and informal learning were evident in the approaches to the tests. Those with complete formal backgrounds were more cautious in their approaches, to retain as many points as possible, whereas those with complete informal backgrounds displayed no such behaviour. The enculturation of institutional values (displays of technical proficiencies) was also evident in the choice of performances submitted for the PP test by musicians who had FPML experiences.

Conclusion and Answering the Research Question

This study demonstrated that learning routes (especially engagement with FPML) have the potential to influence values and attitudes, and result in disparities of proficiencies in various musical skills.

A background that only comprised of formal learning was the least ideal in ensuring proficiencies in the various musical skills examined, and aspects of their learning experiences could quite convincingly explain this. Being primarily notation-reliant musicians, they struggled with proficiencies linked to ear-playing. The discrepancies

between non-HPME (or beginner) and HPME (or advance) FPML demonstrated that musicians with sustained periods of FPML will most likely encounter the learning of improvisation skills and the emphasis on ear-playing skills much later than informal musicians. Therefore, their ear-based proficiencies were not at the same levels as those in the 'I', 'F-I' and 'I-F' categories, as they cultivated a habit of relying on notation to a point that it might become central to their practices. They were also least likely to engage in PLAs, and even if they did, it also took place during the later stages of their journeys.

Also, given that they have a tendency to focus only on exercises/practices and follow methods prescribed by their teachers, they developed a reliance on external monitoring and instruction. Thus, they lack the experience to navigate scenarios with no/limited structure, and they do not always work on areas such as improvisation, unless necessary or instructed. The values that they were exposed to in the institutions also governed the decisions they made. Their familiarity with the conditions of music examinations may have led to the development of behaviours that arguably restricted displays of musicality (focus on accurate reproduction of the prescribed excerpt/music, at the expense of the sensitivity of the notes they were playing). Also, they viewed musical proficiency as displays of technical ability and chose to present technically challenging performances. This assertion is also applicable to the 'F-I' and 'I-F' categories which comprised musicians who had a combination of formal and informal learning experiences.

Musicians with complete informal backgrounds excelled in aspects associated with ear-based practices but tend to struggle in scenarios that required notational proficiencies or placed restrictions on their freedom of expression. This evaluation was credited to them being ear-players who primarily had limited/no engagement with standard music notation, and also the attitudes they had towards music-making in which it was an avenue for personal expression. Beyond that, compared to their formal counterparts, and in similarity to their own engagements with notation, they had limited/no prior experiences with the conditions of musical tests. Thus, even when examining what was arguably their core strength, they did not always meet the expectations of the test.

A background comprising of both formal and informal learning was found to be the most optimum in the acquisition of various musical skills commonly observed in today's popular music-making. The sequence in which formal and informal learning was experienced, however, did not result in significant disparities in proficiencies, and this was despite the diversity of engagement levels of tools and practices, and the attitudes and values had. Though it should be noted that the diversity in engagement levels of the tools and practices were mainly observed in the early stages, and musicians from both routes eventually arrived at similar levels of engagements and reliance.

However, while disparities exist within the current landscape, the contrast with the past was apparent as well. The descriptions of informal practices and associated values and attitudes resembled closely to those expressed by musicians in the past. However, descriptions of their formal counterparts were where the main bulk of contradictions presented themselves, and some of the issues observed here were already expressed by scholars examining PME and its incompatibility with the outside world. One of which, was commending the replication and emulation of established performance styles, which obstructed creativity and prevented the development of individual unique sounds (Alper, 2007; Gatien, 2009; Parkinson and Smith, 2015). Other issues concerning formal training were the struggles of navigating their musical life after tuition had ended, and the reduced levels of self-motivation due to reliance on instruction (Cope, 2002; Green, 2002; Robinson, 2010). Therefore, resulting in established practices, values and attitudes that were misaligned with the wider informal community of today and the past. Additionally, according to the findings of this study, they also had comparatively weaker levels of musical proficiencies (except sight-reading) than their contemporaries who immersed themselves in informal practices.

Another area that was in contradiction to established knowledge was the interaction with a different music learning process (from formal to informal and vice versa). Jones (2014) asserted that formally trained musicians found it difficult to interact with informal practices, while Bennett (1980), Berkaak (1999) Cohen (1991), Green (2002) and Lilliestam (1996) claimed that informal musicians struggled to relate to the practices of formal learning. This study found that this was no longer always the case.

This study demonstrated that the landscape of today's popular music learning culture, and as a consequence, the make-up of the population and the music-making practices involved, do not entirely resemble the descriptions of the past, especially the 1970s. Nevertheless, the differences observed were in line with the educational and technological advances that have taken place over the years. The growing impacts of which were already (albeit unknowingly) noted by popular music scholars, such as those cited in this study. Hence, rather than viewing this study's findings through binary comparison lenses, it should be viewed within the context of the evolution of popular music learning culture.

To what extent do popular musicians' music learning experiences influence proficiencies in various musical skills?

The answer to this question put simply is, to a great extent. A popular musician who only goes through formal routes of learning (which still mostly resembled classical pedagogies despite the inclusion of informal ear-based practices) will develop practices, values and attitudes that do not always align with those in the outside world, which in turn, is reflected in their sight-reading, play by ear, improvisation and prepared performance proficiencies. On the other hand, a complete informal self-learning experience that primarily encompasses ear-based practices do present some limitations as well, such as, an inability to understand standard music notation, and to navigate pre-established restrictions that do not encourage personal expressions. However, such a learning process facilitates improvisational skills and musical sensitivities that are considerably lacking in those with formal training experiences only. A background that includes both formal and informal forms of learning (regardless of sequence), and engagements with both notation- and ear-based practices, is the most facilitating route to develop proficiencies in the skills examined in this study. However, while certain musical traits and characteristics can be traced to distinct generic musical backgrounds and/or attitudes and values, it must be noted that diversity exists within each category as well.

Key Contributions To Knowledge

Given that this is arguably pioneering research on this subject matter, one of the key contributions of this study to existing knowledge is the preliminary understanding of the long-term effects of music learning backgrounds on the development of attitudes and values, and the acquisition of sight-reading, play by ear, improvisation and prepared performance proficiencies of popular musicians. It informs on the ways formal and informal modes of music learning causes tensions within popular music culture, in the form of conflicting attitudes, values and dispositions, which are then translated into contrasting musical skill proficiencies.

This in turn, asserts the relevance and legitimacy of alternative models of learning in popular music. As shown in this study, the routes through which competence and excellence are acquired are not the same as classical musician training or other more traditional models. This is unsurprising considering the aspirations are different and require different ways of learning this particular craft and form of expression. Thus, achievement and virtuosity of popular music should be viewed in this light. The implication of this is that providers of PME need to approach popular music on its own terms, for this study has shown how the various methods of learning has influenced the development of a sample group, but it also indicates how the eclecticism of those combinations is distilled in individual expression as a result.

Another key contribution is the demonstration of popular music's learning culture evolution, that was due to the accessibility to a wide array of technologically-induced tools of learning, and willingness to engage in FPML. It demonstrated the ways in which the learning culture of popular musicians today diverged from the past. Consequently, this introduced new ways of thinking about the learning culture of popular musicians, from one that was defined as an aural tradition to one that is immensely diverse, which encompassed a variety of usage and reliance levels of notation- and ear-based skills.

The objective of this study led to additional unintended contributions as well. One of which is the illustration that learning contexts and their commonly associated practices (formal-

notation and informal-ear) were no longer always exclusive. This led to the creation of a musician typology based on learning backgrounds, which can delineate musicians (not just popular musicians) into categories that represents the 'context' and 'practice' characteristics of their learning backgrounds.

Last but not least, the aims of this study also resulted in the development of a (single researcher study) methodology prototype that can facilitate an examination of the influence of past experiences on currents characteristics.

Limitations

This study acknowledges that it was not free from imperfections, and these should be considered in determining the validity of the findings. One of the limitations identified was the representativeness of the sample as recruitment efforts did not return adequate responses from non-HPME individuals; hence the sample may not be conclusively reflective of the current landscape. Similarly, as the sample largely derived from recruitments in universities, the discovery of FPML engagements eclipsing that of IPML should be viewed with caution.

Additionally, the interview sample turned out to be disproportionately Malaysian (was not this study's intention); all interviewees were musicians based in Malaysia (despite efforts to prevent this). While it was demonstrated earlier that cultural, social and geographical factors did not play significant roles in practices engaged with, the argument is theoretical. Thus, generalisability of the findings is disputable and may be more accurately generalised to a Malaysian context.

There were also issues with the way participants characterised their music backgrounds, particularly in the 'I' category. Several participants who had complete informal learning experiences before engaging with HPME (a form of FPML), selected the 'I' category instead of the 'I-F' category. This created complications in the interpretation of findings for it was not possible to determine if all responses to enquiries were purely based on their pre-HPME periods. This study could only proceed with the assumption that the participants'

responses did not take into account their experiences in HPME, as it was clearly noted in the survey form that responses should only be based on their informal learning periods.

Lastly, the generalisability of the study's findings is limited, though it is enhanced by the fact that the conclusions sit within the trajectory of the popular music learning culture evolution, and it is consistent with recent studies on the subject, including that of 'expert' drummers in Bruford's (2019) study. However, the review of literature on the learning culture of popular musicians demonstrated that the generalisability of any study's findings is limited to the period in which the examination took place. Therefore, just like earlier studies on popular music learning culture, this study's findings are only reflective of the current or recent situation, not the distant past nor future. Though there were practices that persisted over time, there were others that had (or will have) its position demoted or replaced. With the continuing efforts to re-invent how popular music is taught in formal situations and the increasing use of technology in music-making practices, it is only fair to assume that the learning will evolve again. Furthermore, it may not be too far-fetched to speculate that further changes in popular music-learning and -making culture will be attached to changes in technology.

Suggestions For Future Research

The process of conducting the study, and understanding the findings, lead to the realisations of additional research that can enhance the understanding of the subject matter beyond that which this research revealed. Given the limitations described earlier, additional studies should be conducted, with a more socially, cultural and/or geographically focused sample, to confirm or refute the findings in this study. Further studies on the nuanced implications of these factors (social/cultural/geographical) on the routes taken, practices engaged with, and provision of HPME would be beneficial as well. The implications of gender and ethnicity on this subject matter of popular music learning culture should also be investigated. The field could also benefit from research concentrated on how musicians characterise their learning experiences, what they consider to be formal and informal, and how that informs their musical identities.

This study should be considered a cursory examination of the subject matter that would benefit from more in-depth investigations into some enquiries. One such instance is the discovery of parental factors in popular musicians' engagement with WCMT. With the knowledge that WCMT is common among current popular musicians, further enquiries into their engagements and parents' involvement on the matter would further inform the understanding of today's popular musicians. Another instance is the finding that current IPML can also be a solitary endeavour, which contradicts what is known about informal practices of popular musicians, rendering the need for further investigation on this subject matter. The third instance is the significantly higher engagements with instructional/tutorials videos by popular musicians who experience IPML before FPML. There was an absence of relevant data to make any convincing conclusions about this finding, and further studies are needed to explore this phenomenon. The fourth instance was the ease in which popular musicians today interact with a different mode of music learning (formal or informal). This contradicted past accounts and warrants additional investigations.

Additional studies on popular musicians with both formal and informal learning experiences are also needed to examine the sequence factor more thoroughly. Even though this cursory study concluded that there were no remarkable differences in the resulting musical proficiencies, there was evidence to suggest that certain aspects of playing by ear can be traced to the engagement sequence of formal and informal learning. However, the evidence was not significant enough to make any conclusive inferences. Hence, further research is needed to investigate this matter. Another area, deserving attention but was not accomplished by this study, was the examination of the duration in which formal or informal modes of learning were engaged with, and the extent of its impacts on eventual musical proficiencies. Beyond that, further studies that can delineate the impacts of context (formal/informal) and practice (notation/ear) on the test results would be greatly valuable. One suggestion would be to conduct controlled experiments where formal and informal learning contexts are the controlled variables, and either notation-, or ear-based practices, is the independent variable.

The development of the methodology also brought to light the lack of scholarly understanding of industry expectations of professional musicians. Research of this kind would greatly benefit providers of popular music education, including HPME and popular music examination boards.

Significance and Implications

The significance of this research is arguably broad, ranging from implications that are relevant to scholars of music pedagogy, scholars of popular music, music educators and musicians. This research is relevant to scholars of music pedagogy, especially those concerned with the impacts of learning by ear and notation, for it invites scholars to consider the long-term effects of pedagogies in addition to the immediate effects. This research also encourages scholars to take into consideration the influence that aspirations may have on test results. In addition, this study can contribute to the discourse of popular music pedagogies, in the ways that methods of learning influences values, attitudes and dispositions.

In terms of popular music researchers, this study encourages examinations that look beyond the product (music), industry, and socio-cultural factors, to also allocate attention to how the musicians (who created the music and are agents of the industry) become who they are. To take into account that popular music is an ever-evolving music culture, and with it, the practices involved changes as well, either as a consequence of the topical music involved, or vice versa. In short, how the changes in the make-up of the population's music backgrounds as a whole, play a role in the music culture itself. In turn, this urges scholars also to consider learning culture in popular music definition discourses.

While this study examined the subject matter from the learner's perspective, popular music educators can exploit the findings to inform their pedagogical approaches, to consider the skill developments and the implicit attitudes and values that may result from such pedagogies. It also encourages providers of PME to approach the study of popular music on its own terms, to develop methods of structured learning that enhances the development of popular music's virtuosities.

Finally, popular musicians, who aspire towards careers as instrumentalists or singers in the Anglo-American popular music form, may find this research useful as they consider the course of action that is appropriate for their aspirations. That being said, though this study asserts that proficiencies in some musical skills are attributed to certain routes of learning, it does not propagate that those proficiencies can only be attained through those routes. With that, this study will end with a quote from one of the musicians in this study, Zayne:

> *'Music is music, and how you get there can be from very different routes, but at the end of the day you can always learn from each other, there is no one set of ways that is the right way, it depend[s] on what you want, and what you want to do with it'.*

APPENDICES

Appendix 1: Typology Test Question

Musician Typology

When answering questions, think about the time when you were seriously thinking about becoming a musician.

* Required

Learning contexts

1. Did you learn to play music formally, informally, or a combination of both contexts? *

Mark only one oval.

- ◯ Formal (formalised environment and pedagogical approaches) *Skip to question 2*
- ◯ Informal (outside the confines of formal structured lessons) *Skip to question 5*
- ◯ Combination of formal and informal *Skip to question 8*

Formal only

2. From the options below, select one that best describes how you went about learning to play a song on your instrument. *

Mark only one oval.

- ◯ Notational practice only (From written notation only)
- ◯ Notational practices supplemented with ear-based practices
- ◯ Ear-based practices only (Learn by ear without any form of written notation)
- ◯ Ear-based practices supplemented with notational aid
- ◯ Other: _____

3. How proficient are you with learning a song only from notation? *

Mark only one oval.

	1	2	3	4	5	
Not very proficient	◯	◯	◯	◯	◯	Very proficient

4. How proficient are you with learning a song only by ear? *

Mark only one oval.

	1	2	3	4	5	
Not very proficient	◯	◯	◯	◯	◯	Very proficient

Skip to question 17

Informal only

5. From the options below, select one that best describes how you went about learning to play a song on your instrument. *

Mark only one oval.

- ◯ Notational practice only (From written notation only)
- ◯ Notational practices supplemented with ear-based practices
- ◯ Ear-based practices only (Learn by ear without any form of written notation)
- ◯ Ear-based practices supplemented with notational aid
- ◯ Other: _____

6. How proficient are you with learning a song only from notation? *

Mark only one oval.

	1	2	3	4	5	
Not very proficient	◯	◯	◯	◯	◯	Very proficient

7. How proficient are you with learning a song only by ear? *

Mark only one oval.

	1	2	3	4	5	
Not very proficient	◯	◯	◯	◯	◯	Very proficient

Skip to question 17

Combination of formal and informal experiences

8. Did you begin with formal training or informal learning? *
[Formal training = instrumental lessons, school music lessons, etc] [Informal learning = DIY, self-taught, etc]

Mark only one oval.

- ◯ Began with formal training (moving on to informal learning) *Skip to question 9*
- ◯ Began with informal learning (moving on to formal training) *Skip to question 13*

Skip to question 17

Formal training to informal learning

9. Focusing solely on your formal training experience, select from below, one option that best describes how you went about learning to play a song on your instrument. *

Mark only one oval.

- ◯ Notational practice only (From written notation only)
- ◯ Notational practices supplemented with ear-based practices
- ◯ Ear-based practices only (Learn by ear without any form of written notation)
- ◯ Ear-based practices supplemented with notational aid
- ◯ Other: _____

10. Focusing solely on your informal learning experience, select from below, one option that best describes how you went about learning to play a song on your instrument. *

Mark only one oval.

- ◯ Notational practice only (From written notation only)
- ◯ Notational practices supplemented with ear-based practices
- ◯ Ear-based practices only (Learn by ear without any form of written notation)
- ◯ Ear-based practices supplemented with notational aid
- ◯ Other: _____

11. How proficient are you with learning a song only from notation? *

Mark only one oval.

	1	2	3	4	5	
Not very proficient	◯	◯	◯	◯	◯	Very proficient

12. How proficient are you with learning a song only by ear? *

Mark only one oval.

	1	2	3	4	5	
Not very proficient	◯	◯	◯	◯	◯	Very proficient

Skip to question 17

Informal learning to formal training

13. Focusing solely on your informal learning experience, select from below, one option that best describes how you went about learning to play a song on your instrument. *

Mark only one oval.

- ◯ Notational practice only (From written notation only)
- ◯ Notational practices supplemented with ear-based practices
- ◯ Ear-based practices only (Learn by ear without any form of written notation)
- ◯ Ear-based practices supplemented with notational aid
- ◯ Other: _____

14. Focusing solely on your formal training experience, select from below, one option that best describes how you went about learning to play a song on your instrument. *

Mark only one oval.

- ◯ Notational practice only (From written notation only)
- ◯ Notational practices supplemented with ear-based practices
- ◯ Ear-based practices only (Learn by ear without any form of written notation)
- ◯ Ear-based practices supplemented with notational aid
- ◯ Other: _____

15. How proficient are you with learning a song only from notation? *

Mark only one oval.

	1	2	3	4	5	
Not very proficient	◯	◯	◯	◯	◯	Very proficient

16. How proficient are you with learning a song only by ear? *

Mark only one oval.

	1	2	3	4	5	
Not very proficient	◯	◯	◯	◯	◯	Very proficient

Feedback

Feedback about the efficacy of this survey

17. Did you face any difficulty understanding the questions? Please elaborate if necessary.

18. Did you face any difficulty selecting from the multiple choices provided? Please elaborate if necessary. *

Appendix 2: Likert Scale Experiment

Literature Review

The Likert scale introduced a range of considerations that needed to be addressed, such as the optimum scale points and the debate between allowing a neutral position or artificially forcing the participants to have an opinion. Cursory examination on the subject led to further research specifically in the areas of the optimal number of scale categories, the inclusion/exclusion of a mid-point and its effect on the results. Croasmun & Ostrom (2011, p.20) wrote that researchers could not agree on the optimum number options in a Likert scale; while some preferred 7-point scales and advocated its optimal reliability, others argued that optimal reliability was dependent on the situation. Citing five separate studies (Cox, 1980; Friedman, Wilamowsky & Friedman, 1981; Komorita, 1963; Matell & Jacoby, 1971; Wildt & Mazis, 1978), Garland (1991, p.1) explained that 'the optimal number of scale categories [was] content specific and a function of the conditions of measurement'.

While there was no consensus on the optimum number of items on a scale, Willits, Theodori & Luloff (2016, p.128) made a compelling argument:

> *'Although no fixed rules exist concerning the number of items to include in the final scale, at least four are needed for evaluation of internal consistency (Diamantopoulos et al., 2012). Moreover, while reliability measures increase as the number of items increases above five, each addition makes progressively less impact on scale reliability (Carmines and Zeller, 1979, Hinkin, 1995). As a result, from a practical standpoint, approximately five, six, or seven items have been suggested as adequate for most constructs (Hinkin, 1998).*

Regarding odd- and even-numbered scales, Wells and Marwell (1976, p.83) advocated that a neutral point would give participants the opportunity to evade a response, and Garland (1991, p.1) discussed the danger of social desirability bias that would emerge from allowing a neutral option. While both works of literature appeared to advocate for the omission of the mid-point, there were other considerations as well. Matell and Jacoby's (1972) experiment demonstrated that the participants' selection of the mid-point decreased as the number of scales increased, and they advocated either for the omission of the mid-point or to include it in scales with a larger number of points. In addition to that, Worcester and Burns' (1975) study found that participants tended to lean towards the positive end of a scale when provided with 4-point scales with the absence of a mid-point, and Garland's

(1991) experiment demonstrated that the inclusion or exclusion of a mid-point could produce distortions in the results.

Experiment

The literature cited above narrowed down the options to 5-, 6-, or 7-point scales, and led to the question of the scale most suited for this study; to exclude the mid-point (6-point scale) or include it (5- and 7-point scale)? Also, if the mid-point was present, which scale (5- and 7-) would result in an inclination to select the mid-point? An experiment was thus conducted to determine whether the introduction of a mid-point or the removal of points from an odd-numbered scale would distort initial ratings. The experiment consisted of a single question asked three times consecutively. Each time the question was asked, participants were presented with a different scale starting with a 6-point scale, followed by a 7-point scale, and ending with a 5-point scale. All scales were labelled 'not very confident' on one end, and 'very confident' on the opposite end.

The rationale for following the 6-point scale with a 7-point scale was to observe the movement of ratings that occurred when participants had the option to remain neutral after being forced to have an opinion. Subsequently, the 5-point scale followed the 7-point scale to examine the changes that took place when they had their response options reduced. A total of 31 responses were collected.

Table 19: Movement of Each Participant's Response

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

Table 20: Comparison of individual point responses and corresponding percentages

	6-point			7-point			5-point		
	#	Responses		#	Responses		#	Responses	
Very confident	**6**	1	3.2%	**7**	0	0.0%	**5**	1	3.2%
	5	9	29.0%	**6**	8	25.8%	**4**	10	32.3%
	4	5	16.1%	**5**	4	12.9%			
Mid-point		N/A	N/A	**4**	4	12.9%	**3**	10	32.3%
	3	8	25.8%	**3**	7	22.6%	**2**	7	22.6%
	2	5	16.1%	**2**	5	16.1%			
Not very confident	**1**	3	9.7%	**1**	3	9.7%	**1**	3	9.7%
Total		31	100%		31	100%		31	100%

Table 21: Movement that occurred at each individual point

	#	6- to 7-point	7- to 5-point	6- to 5-point
Very confident	**7**	-3.2%	3.2%	0.0%
	6	-3.2%	-6.4%	-12.8%
	5	-3.2%		
Mid-point	**4**	N/A	19.4%	N/A
	3	-3.2%	-16.1%	-19.3%
	2	0.0%		
Not very confident	**1**	0.0%	0.0%	0.0%

**The points on the left-hand side only accurately reflects the points on the 7-point scale. It should be understood that the 5, 6 and 7 point on the 6-point scale reflects the 4, 5 and 6 points respectively. Similarly, the 2 & 3 and 5 & 6 on the 5-point scale reflects the 2 and 4 points respectively.*

Table 22: Comparisons of total percentages at both sides of the spectrum and the mid-point

	6-point	7-point	5-point
Positive	48.3%	38.7%	35.5%
Mid-point	N/A	12.9%	32.3%
Negative	51.6%	48.4%	32.3%

Table 23: Total movement that occurred at both sides of the spectrum and the mid-point

	6- to 7-point	7- to 5-point	6- to 5-point
Positive	-9.6%	-3.2%	-12.8%
Mid-point	N/A	19.4%	N/A
Negative	-3.2%	-16.1%	-19.3%

Examining the results from the 6- and 7-point scales, it could be seen in Table 22 that responses divided somewhat equally between positive (48.3%) and negative (51.6%) ratings during the first round of questioning that forced participants to have an opinion. When given the neutral option, 12.9% (n=4) of participants changed their ratings, which begged the question of the origins of those movements. By referring to Table 20, it was determined that movements departed from the '3', '4', '5', and '6' points on the 6-point scale. With the knowledge that the participant who initially rated '6' also selected '6' on the 7-point scale[117], it was conclusive that movements towards the mid-point (not necessarily arriving at the mid-point) derived from the '3' (3.2%, n=1), '4' (3.2%, n=1), and '5' (6.4%, n=2) points on the 6-point scale.

Comparing the results between the 6- and 5-point scales, it showed 32.3% (n=10) that initially selected either positive or negative ratings on the 6-point scale, selected the mid-point on the 5-point scale (Table 20). 12.8% (n=4) degraded their ratings, and 19.3% (n=6) upgraded their ratings (Table 21). Given that there were no movements at the extreme ends on both scales, it was conclusive that the movements derived exclusively from the mid-range of both positive and negative sides.

Scrutinising the data between the 7-point and 5-point scale, 32.3% (n=10) selected the mid-point on the 5-point scale, as opposed to 12.9% (n=4) on the 7-point scale, resulting in a 19.4% (n=6) difference, with 3.2% (n=1) and 16.1% (n=5) deriving from positive and negative ratings respectively (Table 20 and 23).

[117] This information was obtained by going through the individual responses (Refer to Appendix 2).

While the results showed that the introduction of a mid-point or the reduction of points distorted the initial results, it also raised a few points that were far more interesting. First, in contrast to Garland's (1991) study that found more negative ratings with the denial of a mid-point, the results in this experiment showed that the absence of a mid-point resulted in more positive ratings; in both overall and individual ratings[118]. However, this could be due to the 'content specific' factor; the questions asked in both experiments were very different. Another possible reason for this contradiction in results would lie in the design of the experiment; Garland's study focused on the movement in ratings after removing the mid-point, this study focused on the movement in ratings after introducing the mid-point. Nonetheless, this concurred with Garland's (ibid., p.1) assertion that the presence or absence of the mid-point could produce a distortion in the results.

Second, those that had strong/extreme opinions did not waver in their beliefs when presented with the different point scales (Table 20). There was no movement at the extreme end of the negative spectrum; the percentages of '1' remained the same throughout, and the percentages of '2' in both 6- and 7-point scale were also consistent, while there was only minimal movement at the positive end[119]. The changes in ratings primarily originated from mid-section of the scale.

Third, as demonstrated by the comparison between the 7- and 5-point scales, the lesser the point scale, the more participants selected the mid-point; 32.3% (n=10) selected the mid-point on the 5-point scale, as opposed to 12.9% (n=4) on the 7-point scale. This finding was consistent with the findings of Matell and Jacoby's (1991, p.1) research.

Fourth, although the movement towards the mid-point on both 5- and 7th point scales demonstrated Wells and Marwell's (1976) assertion that participants would refuse to give an opinion when the opportunity presented itself, this may not necessarily be the case. As discussed above, the movement towards the mid-point only occurred from the mid-sections, and closer inspection of the data showed that all movement towards the mid-

[118] Alternatively, it could also be interpreted that a mid-point resulted in more negative ratings.
[119] The one participant who selected '6' on the 6-point scale, selected 6 on the 7-point scale, but selected 5 on the 5-point scale.

point on the 5-point scale derived from the '3' and '5' points on the 7-point scale[120]. Understanding this finding with the knowledge that there was no indication that the mid-point was neutral, but rather the scales were presented as a continuum with 'very confident' and 'not very confident' at both ends, it provided reason to assert that participants perceived the scale points as marks on a range, and those that selected the mid-point had opinions that fell between the 37.5%-62.5% range (Table 24).

Table 24: Comparison of percentages between 7- and 5-point scales

7-point scale						
1	2	3	4	5	6	7
0%	16.67%	33.34%	50%	66.68%	83.35%	100%
		37.5%	<---------->	62.5%		

5-point scale				
1	2	3	4	5
0%	25%	50%	75%	100%

Fifth, in the case where there was a subsequent reduction of scale points, but a mid-point was still offered (low odd-numbered scale), ratings appeared to move towards the positive end of the spectrum. 16.1% (n=5) went from negative to mid-point, whereas only 3.2% (n=1) went from positive to mid-point. As mentioned above, the scales were presented as a continuum and did not specify that the mid-point was neutral. Taking this into account, and considering the direction of the movement, it suggested that participants not only tended to select the mid-point on scales with lesser points but also to rate more positively.

Sixth, while the results of this study were consistent with Garland's (1991, p.2) claim that resorting to a scale without a mid-point seemed to help alleviate the social desirability bias without changing the direction of opinion, this study's experiment findings suggested that this only applied to scales with greater number of points. This observation was arrived at by adopting Garland's method of recalculation; subtracting the number of mid-point responses from the total sample and recalculating the percentages based on the updated sample size (Table 18). Referring to Table 26, it could be seen that there was a higher

[120] This was determined by analysing the individual responses (Refer to Appendix 2).

percentage of negative ratings in both the 6- and 7-point scales (same direction of opinion), but the 5-point scale resulted in a reversed majority (opposite direction of opinion)[121].

Table 25: Recalculated comparison of individual point responses and corresponding percentages

	6-point			7-point			5-point		
	#	Responses		#	Responses		#	Responses	
Very confident	**6**	1	3.2%	**7**	0	0.0%	**5**	1	4.8%
	5	9	29.0%	**6**	8	29.6%	**4**	10	47.6%
	4	5	16.1%	**5**	4	14.8%			
Mid-point		N/A	N/A	**4**	N/A	N/A	**3**	N/A	N/A
	3	8	25.8%	**3**	7	25.9%	**2**	7	33.3%
	2	5	16.1%	**2**	5	18.5%			
Not very confident	**1**	3	9.7%	**1**	3	11.1%	**1**	3	14.3%
Total		31	100%		27	100%		21	100%

Table 26: Recalculated comparisons of total percentages at both sides of the spectrum and the mid-point

	6-point	7-point	5-point
Positive	48.4%	44.4%	52.4%
Mid-point	N/A	N/A	N/A
Negative	51.6%	55.6%	47.6%

Reiterated earlier in this chapter, the purpose of employing Likert scales was to obtain quantifiable formats of qualitative information, specifically those relating to self-evaluation, and perceptions of industry expectations. Based on the findings discussed above, the 7-point scale was the optimum option for self-evaluation related questions, but the rationale for choosing the 7-point over the 5- and 6- point scales was multifaceted. First, the justification for utilising 7-point scales was based on the 'content specific' argument; the nature of the questions required a mid-point for the accurate reflection of their self-evaluation. Denial of the mid-point was to prevent participants from refusing to give an opinion or to force them to have an opinion artificially. However, the study intended to use

[121] This finding also supports the fifth point.

scales that were similar to this experiment; a spectrum consisting of opposing descriptions at both ends, with no indication of what the mid-point represented. The findings from this experiment demonstrated that participants viewed points on the scales of this format as marks on a range, thus selecting the mid-point in this study will not translate into 'no opinion', but rather a neutral rating of their abilities.

Also, the self-evaluating questions in this study had relatively lower risks of social desirability bias, as the questions would only enquire about the evaluation of their abilities. Thus, there were no socially acceptable/unacceptable answer. Also, while the absence of a mid-point could reduce the risk of social desirability bias, it did not remove it entirely; participants may still choose to give a socially acceptable opinion.

The findings from the comparison of the 5- and 7-point scales demonstrated that the lesser point scale was an insufficient rating measurement tool as there was a 19.4% (n=6) difference in ratings towards the mid-point; this indicated that the 5-point scale could not accurately represent the opinions of the sample. Also, compared to the 5-point scale, the results of the 7-point scale indicated lesser distortion from the initial ratings in both original and adapted calculations (Refer to Table 6 and 10).

Therefore, taking the arguments from literature and primary data into consideration, the 7-point appeared to be the most suitable for questions of this nature. In terms of values- and attitude-related questions, the 6-point scale was more appropriate as questions within this context required participants to provide opinions about their expectations of the industry. Therefore, there was a relatively high risk of social desirability bias, as participants may choose to give an answer that was socially/culturally appropriate (refusing to state an opinion for fear of judgement) rather than an organic response.

Survey Questions

Response experiment

You'll be asked the same question three (3) times, each time you are presented with a different answer set. Select one that best describe your opinion.

* Required

Question 1

1. How much confidence do you have in Dr. Mahathir's sincerity of his intent to correct his past mistakes? *

Mark only one oval.

	1	2	3	4	5	6	
Not very confident	◯	◯	◯	◯	◯	◯	Very confident

Question 2

2. How much confidence do you have in Dr. Mahathir's sincerity of his intent to correct his past mistakes? *

Mark only one oval.

	1	2	3	4	5	6	7	
Not very confident	◯	◯	◯	◯	◯	◯	◯	Very confident

Question 3

3. How much confidence do you have in Dr. Mahathir's sincerity of his intent to correct his past mistakes? *

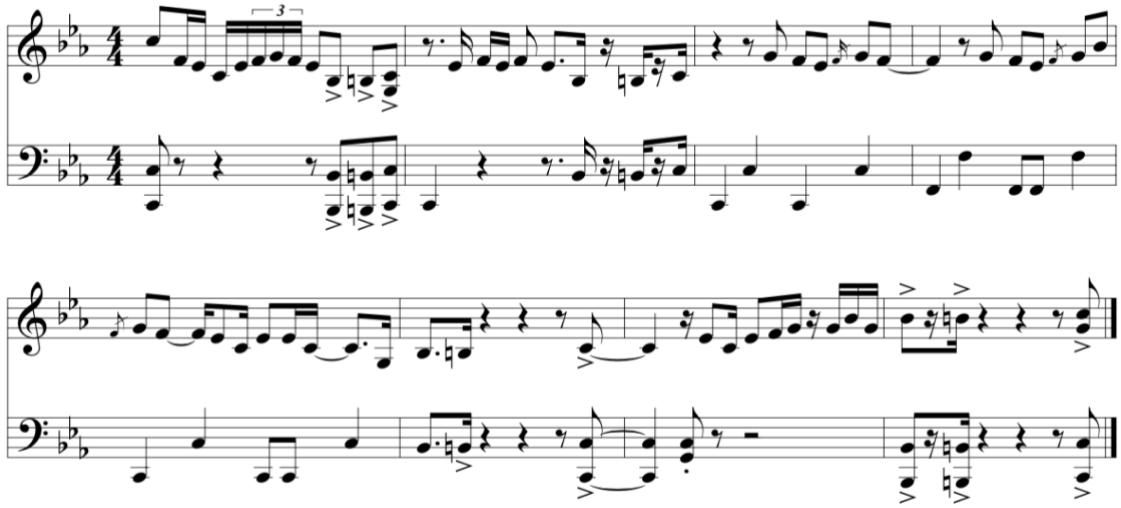
Mark only one oval.

	1	2	3	4	5	
Not very confident	◯	◯	◯	◯	◯	Very confident

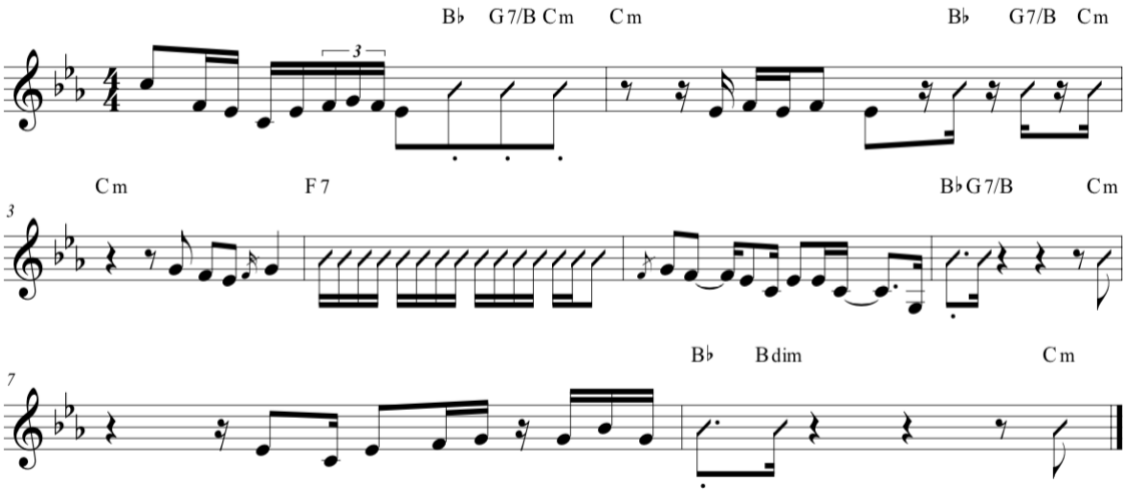
Appendix 3: Musical Test Items and Assessment Criteria

Sight-reading (practise) = 100bpm

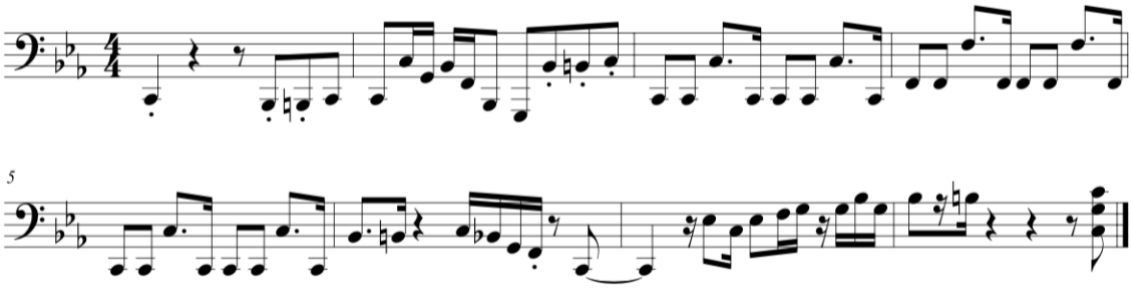
Piano/Voice



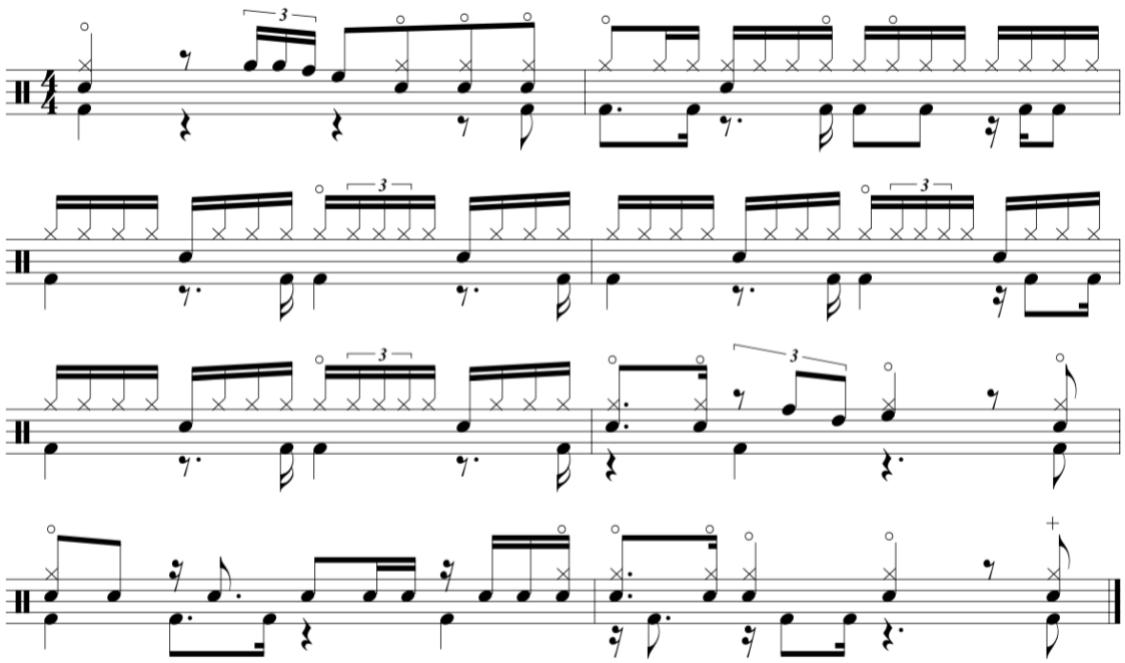
Guitar



Bass

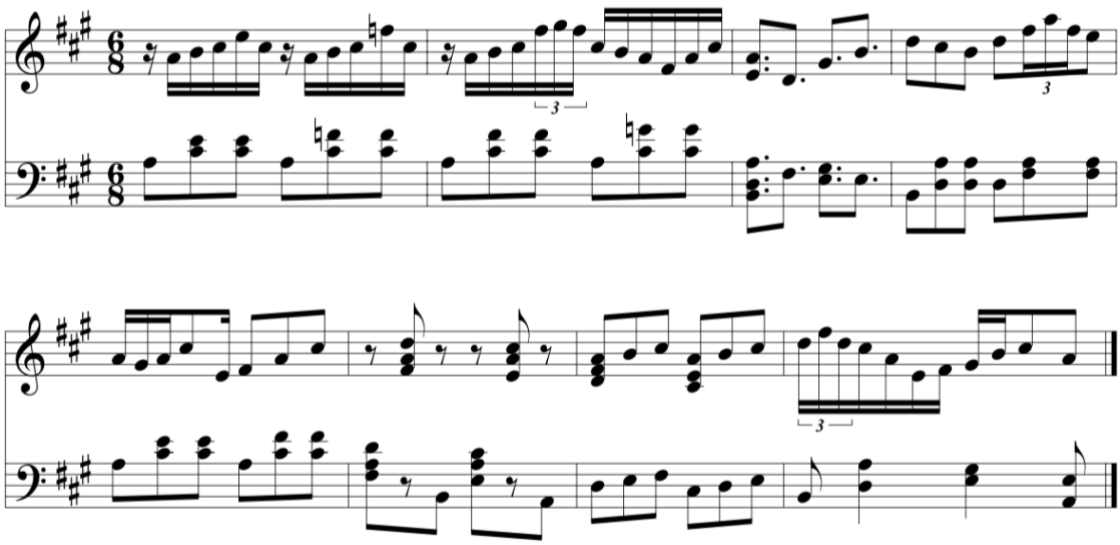


Drums

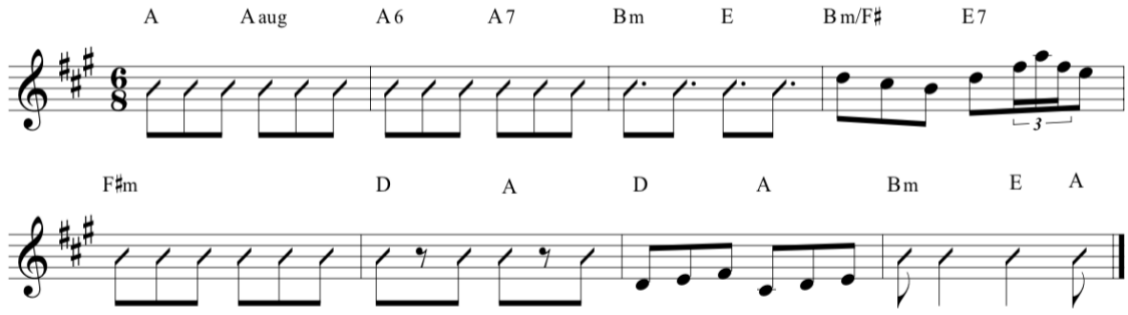


Sight-reading (1) = 68bpm

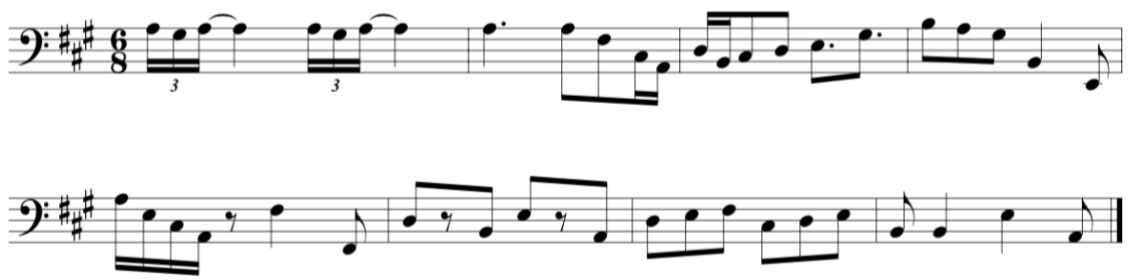
Piano/Voice



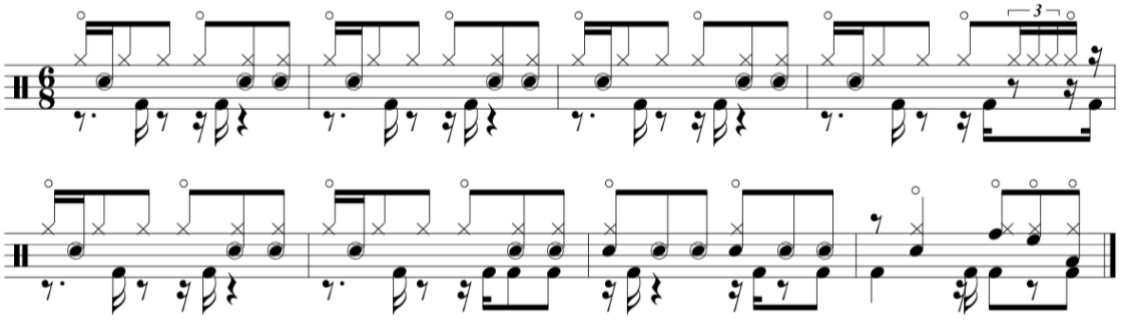
Guitar



Bass

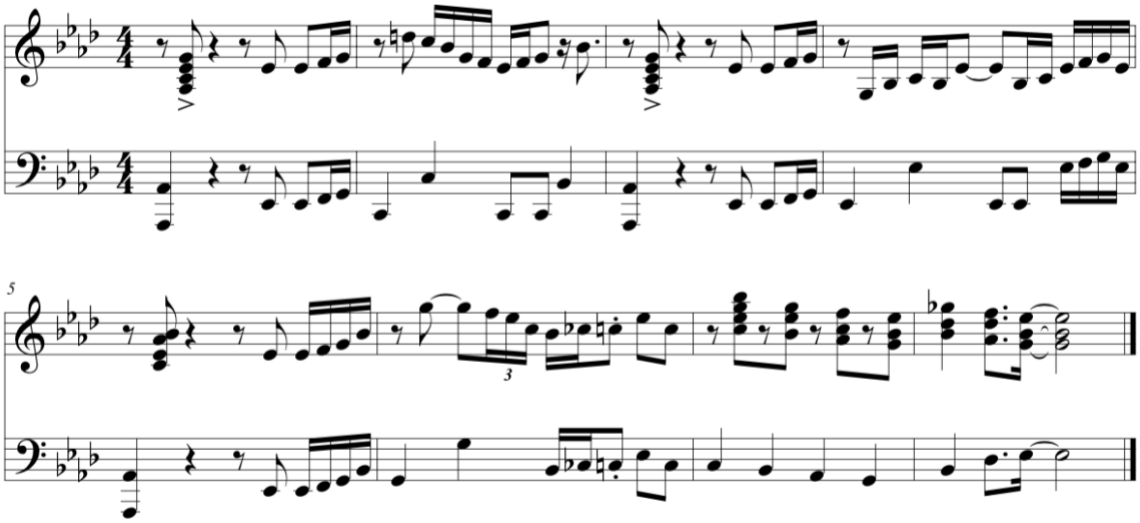


Drums

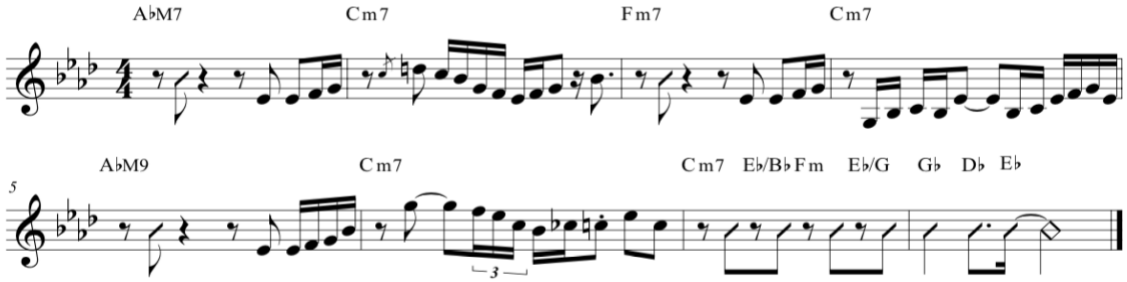


Sight-reading (2) = 95bpm

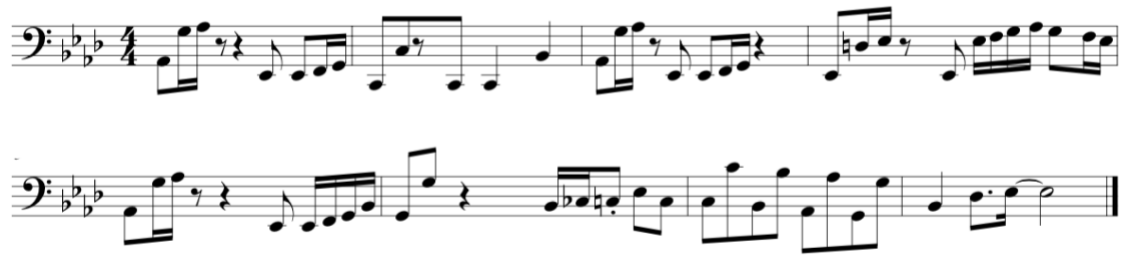
Piano/Voice



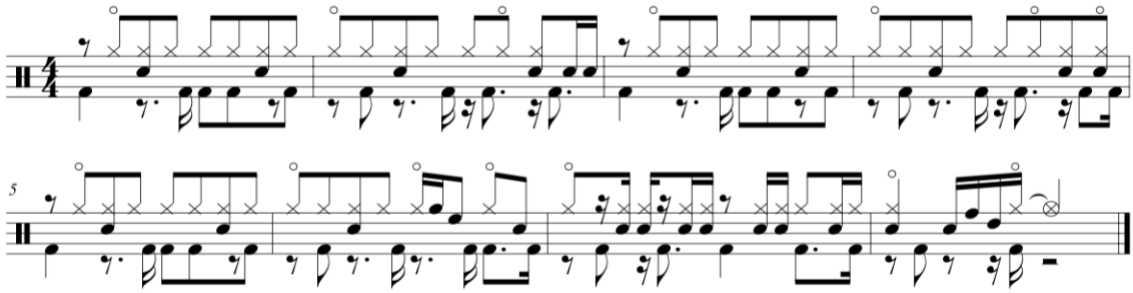
Guitar



Bass

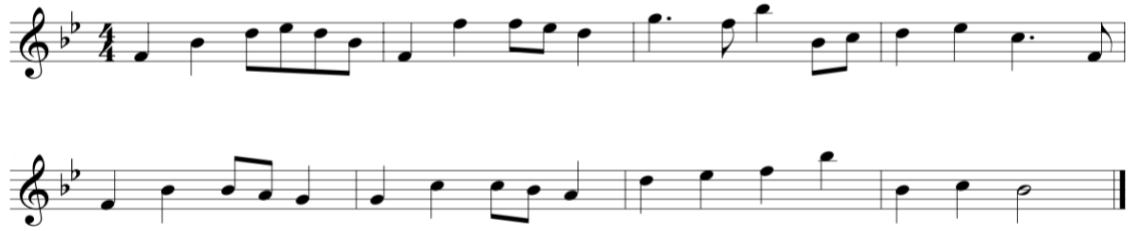


Drums

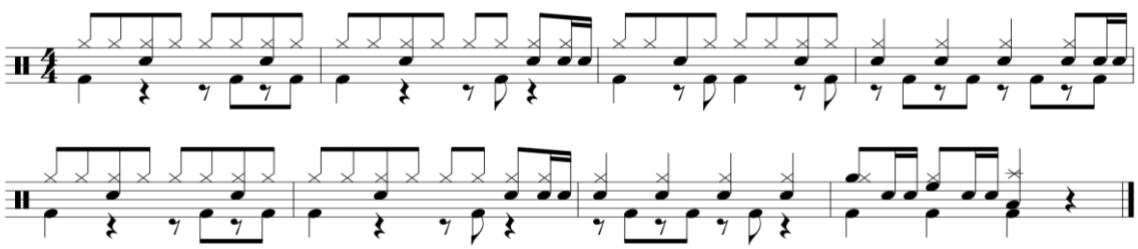


Play by Ear (practise) = 120bpm

Piano/Voice/Guitar/Bass

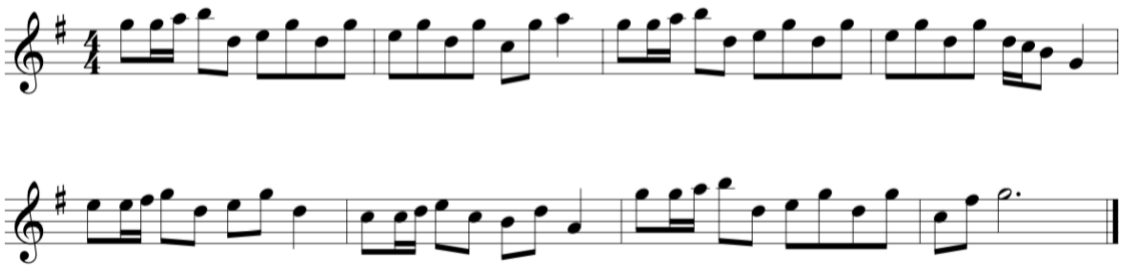


Drums

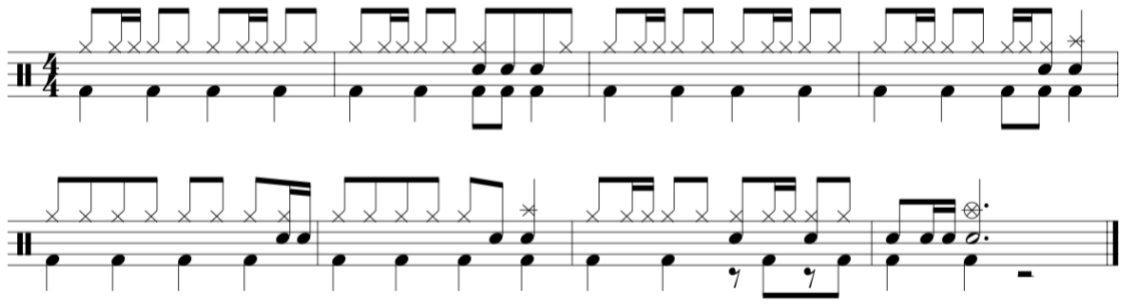


Play by Ear (1) = 108bpm

Piano/Voice/Guitar/Bass

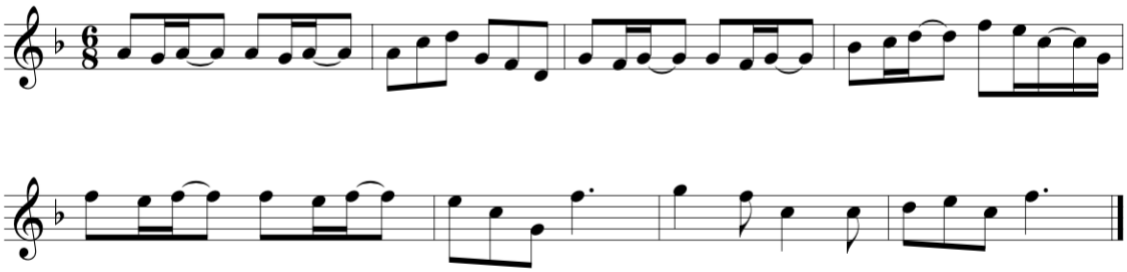


Drums

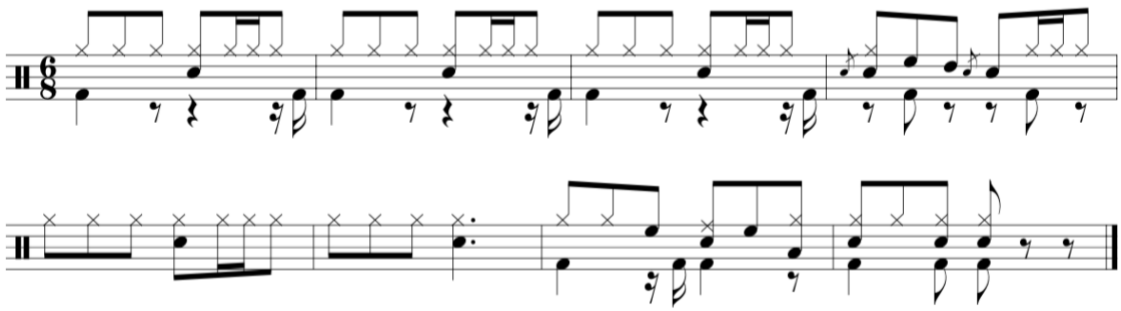


Play by Ear (2) = 108bpm

Piano/Voice/Guitar/Bass

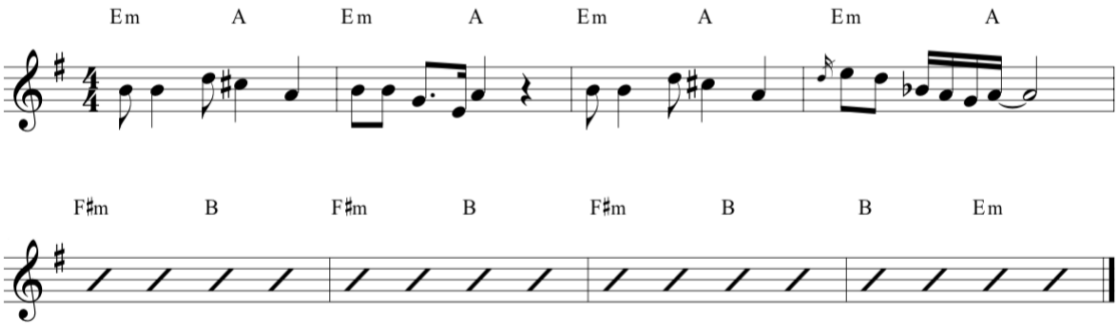


Drums



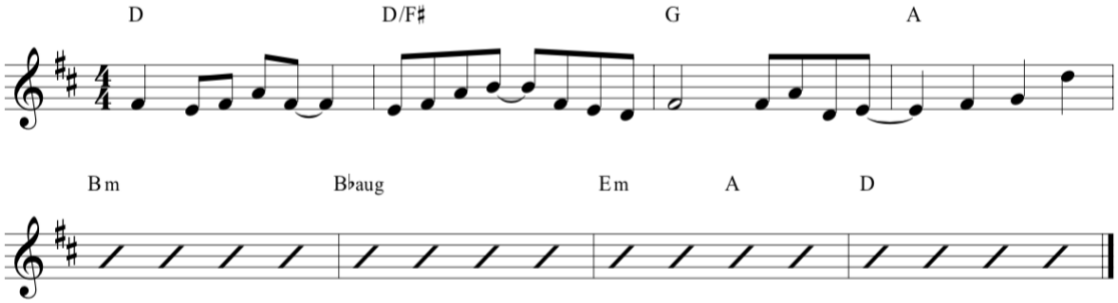
Call and Response (practise) = 118bpm

Piano/Voice/Guitar/Bass/Drums



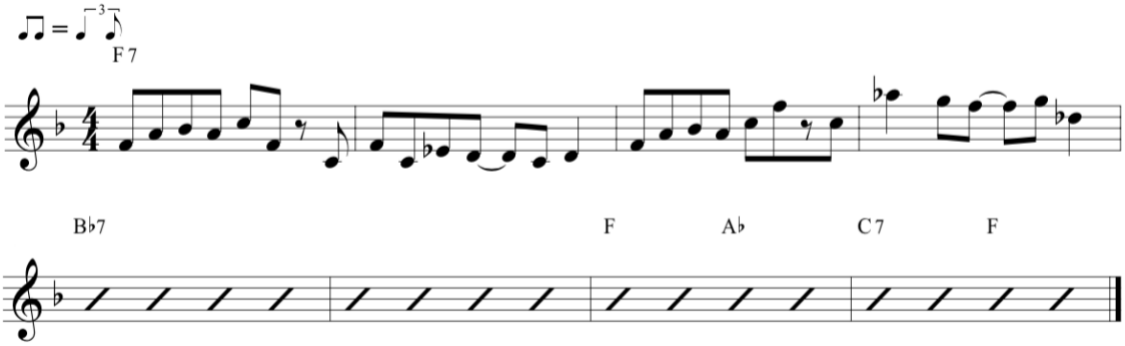
Call and Response (1) = 94bpm

Piano/Voice/Guitar/Bass/Drums



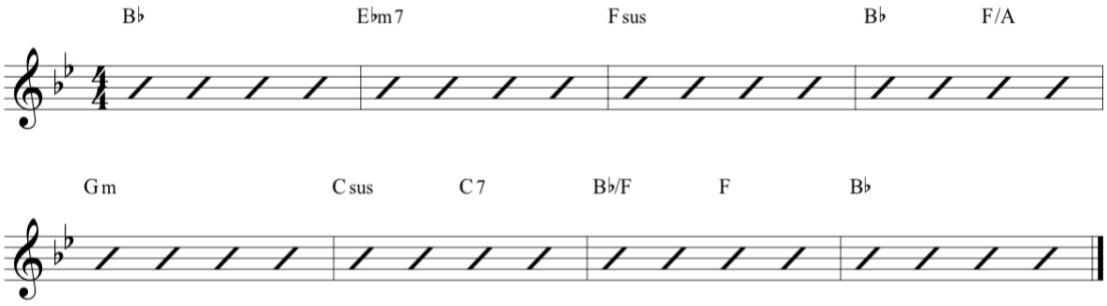
Call and Response (2) = 145bpm

Piano/Voice/Guitar/Bass/Drums



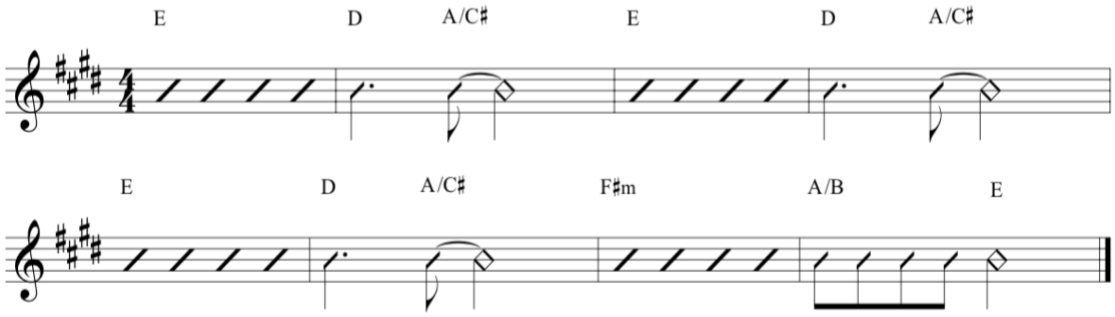
Backing Accompaniment (practise) = 95bpm

Piano/Voice/Guitar/Bass/Drums



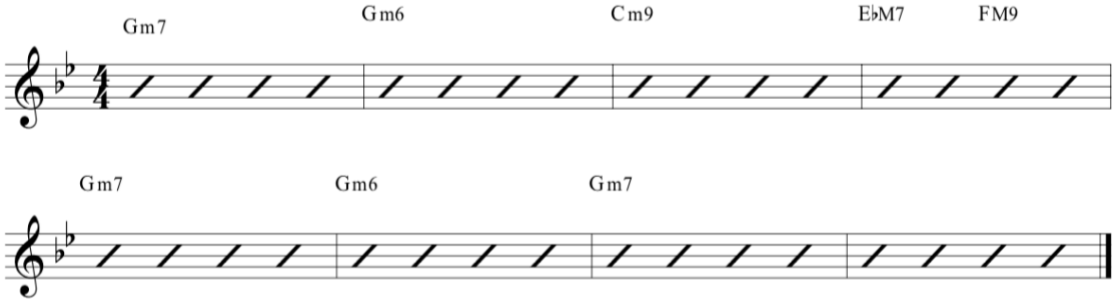
Backing Accompaniment (1) = 113bpm

Piano/Voice/Guitar/Bass/Drums



Backing Accompaniment (2) = 101bpm

Piano/Voice/Guitar/Bass/Drums



Assessment Criteria

Piano/Voice/Guitar/Bass

Sight Reading	Distinction	Merit	Pass	Below Pass 1	Below Pass 2	No response
	5 points	4 points	3 points	2 points	1 point	0 point
Notation/pitch	Notation/pitch accurate throughout	Notation/pitch generally accurate	Notation/pitch accuracy evident	Notation/pitch generally inaccurate	Notation/pitch largely inaccurate	Response not offered
Rhythm	Rhythm accurate throughout	Rhythm generally accurate	Rhythm accuracy evident	Rhythm generally inaccurate	Rhythm largely inaccurate	Response not offered
Sync (with track)	Pulse accurate throughout	Pulse generally accurate	Pulse accuracy evident	Pulse generally inaccurate	Pulse largely inaccurate	Response not offered
Musicality	Response is highly musical	Response is generally musical	Response is adequately musical	Response is minimally musical	Response lacks musicality	Response not offered

Play By Ear	Distinction	Merit	Pass	Below Pass 1	Below Pass 2	No response
	5 points	4 points	3 points	2 points	1 point	0 point
Notation/pitch	Notation/pitch accurate throughout	Notation/pitch generally accurate	Notation/pitch accuracy evident	Notation/pitch generally inaccurate	Notation/pitch largely inaccurate	Response not offered
Rhythm	Rhythm accurate throughout	Rhythm generally accurate	Rhythm accuracy evident	Rhythm generally inaccurate	Rhythm largely inaccurate	Response not offered
Sync (with track)	Pulse accurate throughout	Pulse generally accurate	Pulse accuracy evident	Pulse generally inaccurate	Pulse largely inaccurate	Response not offered
Musicality	Response is highly musical	Response is generally musical	Response is adequately musical	Response is minimally musical	Response lacks musicality	Response not offered

Call & Response (Improvisation)	Distinction	Merit	Pass	Below Pass 1	Below Pass 2	No response
	5 points	4 points	3 points	2 points	1 point	0 point
Pitch	Pitch harmonically accurate throughout	Pitch harmonically accurate overall	Harmonic accuracy of pitch evident	Pitch largely harmonically inaccurate	Pitch harmonically inaccurate throughout	Response not offered
Rhythm	Secure rhythm throughout	Secure rhythm overall	Rhythm adequately secure	Rhythm largely insecure	Rhythm insecure throughout	Response not offered
Sync (with track)	Secure pulse throughout	Secure pulse overall	Pulse adequately secure	Pulse largely insecure	Pulse insecure throughout	Response not offered
Musicality	Response is highly musical	Response is generally musical	Response is adequately musical	Response is minimally musical	Response lacks musicality	Response not offered
Creativity	Response is highly creative	Response is generally creative	Response is adequately creative	Response is minimally creative	Response lacks creativity	Response not offered
Improvisation	Convincing improv/solo throughout	Improv/solo convincing overall	Improve/solo evident and generally appropriate	Improve/solo somewhat absent or inappropriate	Improv/solo largely absent or inappropriate	Response not offered

Backing Accompaniment (Improvisation)	Distinction	Merit	Pass	Below Pass 1	Below Pass 2	No response
	5 points	4 points	3 points	2 points	1 point	0 point
Pitch	Pitch harmonically accurate throughout	Pitch harmonically accurate overall	Harmonic accuracy of pitch evident	Pitch largely harmonically inaccurate	Pitch harmonically inaccurate throughout	Response not offered
Rhythm	Secure rhythm throughout	Secure rhythm overall	Rhythm adequately secure	Rhythm largely insecure	Rhythm insecure throughout	Response not offered
Sync (with track)	Secure pulse throughout	Secure pulse overall	Pulse adequately secure	Pulse largely insecure	Pulse insecure throughout	Response not offered
Musicality	Response is highly musical	Response is generally musical	Response is adequately musical	Response is minimally musical	Response lacks musicality	Response not offered
Creativity	Response is highly creative	Response is generally creative	Response is adequately creative	Response is minimally creative	Response lacks creativity	Response not offered
Improvisation	Convincing improv/solo throughout	Improv/solo convincing overall	Improve/solo evident and generally appropriate	Improve/solo somewhat absent or inappropriate	Improv/solo largely absent or inappropriate	Response not offered

Prepared Performance	Distinction	Merit	Pass	Below Pass 1	Below Pass 2	No response
	5 points	4 points	3 points	2 points	1 point	0 point
Pitch	Pitch harmonically accurate throughout	Pitch harmonically accurate overall	Harmonic accuracy of pitch evident	Pitch largely harmonically inaccurate	Pitch harmonically inaccurate throughout	Response not offered
Rhythm	Secure rhythm throughout	Secure rhythm overall	Rhythm adequately secure	Rhythm largely insecure	Rhythm insecure throughout	Response not offered
Sync (with track)	Secure pulse throughout	Secure pulse overall	Pulse adequately secure	Pulse largely insecure	Pulse insecure throughout	Response not offered
Musicality	Response is highly musical	Response is generally musical	Response is adequately musical	Response is minimally musical	Response lacks musicality	Response not offered
Style	Excellent stylistic understanding and realisation of musical detail	Very good stylistic understanding and realisation of musical detail with	Good stylistic understanding and realisation of musical detail	Reasonable stylistic understanding and realisation of musical detail	Unreliable stylistic understanding and realisation of musical detail	Response not offered
Communication	Highly convincing communication and engagement	Very good communication and engagement with only momentary	Good communication and engagement overall though with	Generally reliable level of communication and engagement	Unreliable communication and engagement	Response not offered

Drums

Sight Reading	Distinction	Merit	Pass	Below Pass 1	Below Pass 2	No response
	5 points	4 points	3 points	2 points	1 point	0 point
Notation/pitch	Notation/pitch accurate throughout	Notation/pitch generally accurate	Notation/pitch accuracy evident	Notation/pitch generally inaccurate	Notation/pitch largely inaccurate	Response not offered
Rhythm	Rhythm accurate throughout	Rhythm generally accurate	Rhythm accuracy evident	Rhythm generally inaccurate	Rhythm largely inaccurate	Response not offered
Sync (with track)	Pulse accurate throughout	Pulse generally accurate	Pulse accuracy evident	Pulse generally inaccurate	Pulse largely inaccurate	Response not offered
Musicality	Response is highly musical	Response is generally musical	Response is adequately musical	Response is minimally musical	Response lacks musicality	Response not offered

Play By Ear	Distinction	Merit	Pass	Below Pass 1	Below Pass 2	No response
	5 points	4 points	3 points	2 points	1 point	0 point
Notation/pitch	Notation/pitch accurate throughout	Notation/pitch generally accurate	Notation/pitch accuracy evident	Notation/pitch generally inaccurate	Notation/pitch largely inaccurate	Response not offered
Rhythm	Rhythm accurate throughout	Rhythm generally accurate	Rhythm accuracy evident	Rhythm generally inaccurate	Rhythm largely inaccurate	Response not offered
Sync (with track)	Pulse accurate throughout	Pulse generally accurate	Pulse accuracy evident	Pulse generally inaccurate	Pulse largely inaccurate	Response not offered
Musicality	Response is highly musical	Response is generally musical	Response is adequately musical	Response is minimally musical	Response lacks musicality	Response not offered

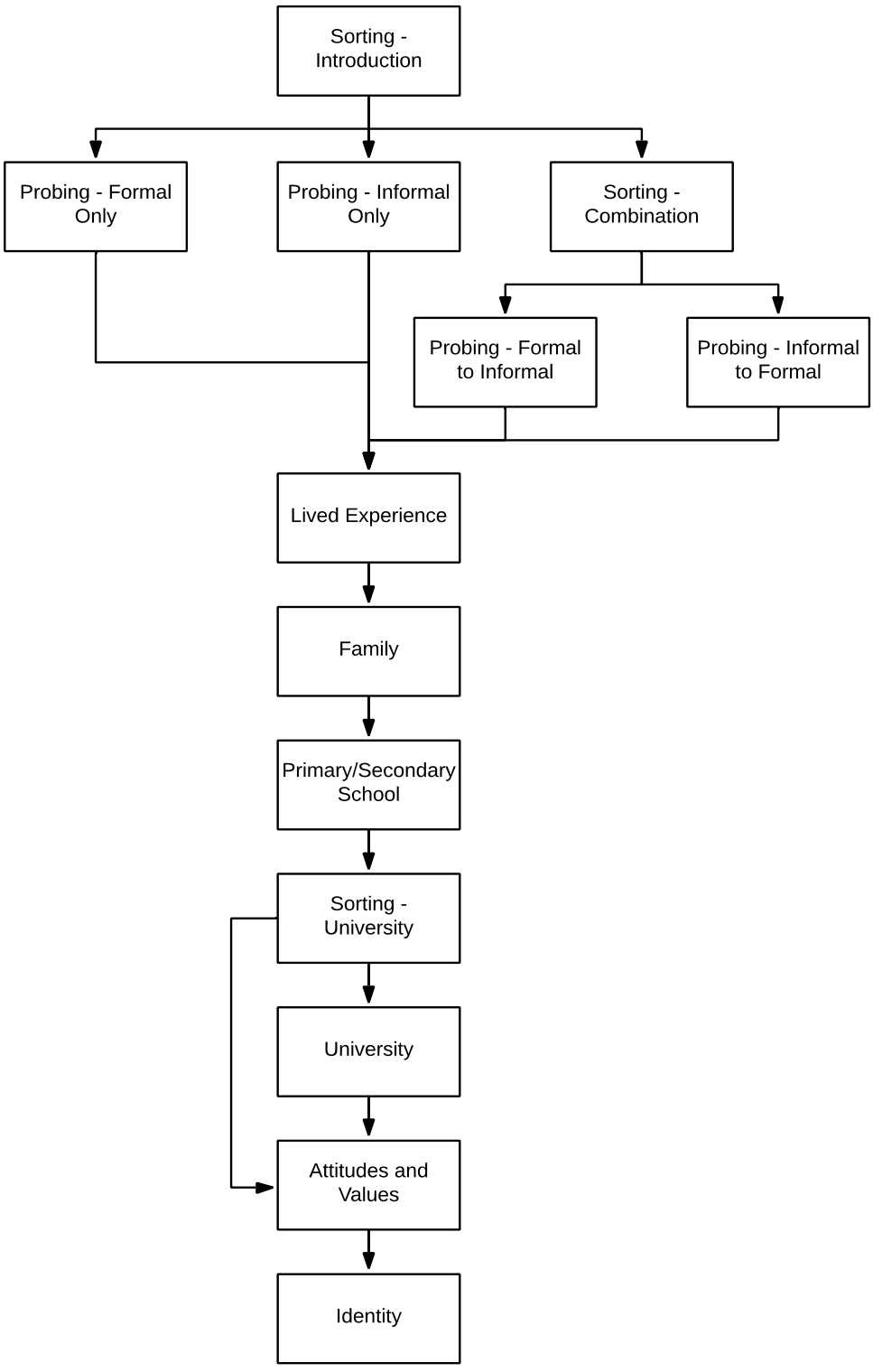
Call & Response (Improvisation)	Distinction	Merit	Pass	Below Pass 1	Below Pass 2	No response
	5 points	4 points	3 points	2 points	1 point	0 point
Rhythm	Secure rhythm throughout	Secure rhythm overall	Rhythm adequately secure	Rhythm largely insecure	Rhythm insecure throughout	Response not offered
Sync (with track)	Secure pulse throughout	Secure pulse overall	Pulse adequately secure	Pulse largely insecure	Pulse insecure throughout	Response not offered
Musicality	Response is highly musical	Response is generally musical	Response is adequately musical	Response is minimally musical	Response lacks musicality	Response not offered
Creativity	Response is highly creative	Response is generally creative	Response is adequately creative	Response is minimally creative	Response lacks creativity	Response not offered
Improvisation	Convincing improv/solo throughout	Improv/solo convincing overall	Improve/solo evident and generally appropriate	Improve/solo somewhat absent or inappropriate	Improv/solo largely absent or inappropriate	Response not offered

Backing Accompaniment (Improvisation)	Distinction	Merit	Pass	Below Pass 1	Below Pass 2	No response
	5 points	4 points	3 points	2 points	1 point	0 point
Rhythm	Secure rhythm throughout	Secure rhythm overall	Rhythm adequately secure	Rhythm largely insecure	Rhythm insecure throughout	Response not offered
Sync (with track)	Secure pulse throughout	Secure pulse overall	Pulse adequately secure	Pulse largely insecure	Pulse insecure throughout	Response not offered
Musicality	Response is highly musical	Response is generally musical	Response is adequately musical	Response is minimally musical	Response lacks musicality	Response not offered
Creativity	Response is highly creative	Response is generally creative	Response is adequately creative	Response is minimally creative	Response lacks creativity	Response not offered
Improvisation	Convincing improv/solo throughout	Improv/solo convincing overall	Improve/solo evident and generally appropriate	Improve/solo somewhat absent or inappropriate	Improv/solo largely absent or inappropriate	Response not offered

Prepared Performance	Distinction	Merit	Pass	Below Pass 1	Below Pass 2	No response
	5 points	4 points	3 points	2 points	1 point	0 point
Rhythm	Secure rhythm throughout	Secure rhythm overall	Rhythm adequately secure	Rhythm largely insecure	Rhythm insecure throughout	Response not offered
Sync (with track)	Secure pulse throughout	Secure pulse overall	Pulse adequately secure	Pulse largely insecure	Pulse insecure throughout	Response not offered
Musicality	Response is highly musical	Response is generally musical	Response is adequately musical	Response is minimally musical	Response lacks musicality	Response not offered
Style	Excellent stylistic understanding and realisation of musical detail	Very good stylistic understanding and realisation of musical detail with	Good stylistic understanding and realisation of musical detail	Reasonable stylistic understanding and realisation of musical detail	Unreliable stylistic understanding and realisation of musical detail	Response not offered
Communication	Highly convincing communication and engagement	Very good communication and engagement with only momentary	Good communication and engagement overall though with	Generally reliable level of communication and engagement	Unreliable communication and engagement	Response not offered

Appendix 4: Survey Flow Chart and Questions

Flow Chart



Questions

Popular Musicians' Learning Experience Survey

13% Sorting - Introduction

Introduction

What is your main instrument *

- ◯ Acoustic Guitar
- ◯ Electric Guitar
- ◯ Piano and/or keyboard
- ◯ Bass Guitar
- ◯ Drums
- ◯ Vocals
- ◯ Saxophone (or any other woordwind instrument)
- ◯ Trumpet (or any other brass instrument)
- ◯ Violin (or any other string instrument)

Were you introduced to the instrument or did you discover it on your own? *

- ◯ Introduced (by family, friend, or a teacher)
- ◯ Self-discovered

What kinds of music were you into when you first started out? *

- ☐ Western Classical music
- ☐ Popular music
- ☐ Rock music
- ☐ Jazz music
- ☐ World music
- ☐ Other

What kinds of music are you into now? *

- ☐ Western Classical music
- ☐ Popular music
- ☐ Rock music
- ☐ Jazz music
- ☐ World music
- ☐ Other

Did you learn to play popular music formally, informally or both? *

- ◯ Formal only
- ◯ Informal only
- ◯ Combination of both

Formal = Formalised environment and pedagogical approaches (individual or group instrumental lessons, theory lessons, instrumental exams, etc)

Informal = Outside the confines of formal structured lessons (Self-taught, DIY, etc)

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Popular Musicians' Learning Experience Survey

20% Sorting - Combination

Combination of both

The answers in this section will determine the kinds of questions that will be asked.

Which learning context/environment did you engage with first, formal or informal? *

- ◯ Formal
- ◯ Informal

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Popular Musicians' Learning Experience Survey

27% Probing - Formal only

Formal Context Only

Formalised environment and pedagogical approaches (individual or group instrumental lessons, theory lessons, instrumental exams, etc)

In what context(s) did you instrumental learning take place? *
- [ ] Instrumental lessons
- [ ] School Classroom music lessons
- [ ] University/college-level music learning
- [ ] Other

THE FOLLOWING QUESTIONS ARE IN REGARDS TO YOUR EXPERIENCE WITH INSTRUMENTAL INSTRUCTION ONLY

Was it your own choice to learn music in a formal environment? *
- ◯ Yes
- ◯ No

Did you parents play a role in this decision? *
- ◯ Yes
- ◯ No

Was this the only method of learning that you were aware of? *
- ◯ Yes
- ◯ No

Was learning to play your instrument always an individual activity? or did you engage in any peer-learning activities? *
- ◯ Individual activity only
- ◯ Individual and peer-learning activities
- ◯ Other

Individual activity only: No engagement with peers: 1-to-1 or group instructional lessons
Peer-learning activities: Learning to play songs/material on the instruments from peers without the presence of a tutor

Did you have a say in what you learnt and how you want to learn or was it entirely up to the discretion of your teacher? *
- ◯ My teacher allowed me to decide/negotiate what I wanted to learn (song/technique), and how i learnt them (notation or by ear)
- ◯ My teacher dictated what to learn and how to learn them
- ◯ Other

Were lessons very structured and organised? *
- ◯ Yes (Structured and organised)
- ◯ No (Haphazard)

Haphazard: random/unplanned/disorganised

Was the difficulty level of the content or exercise consistently increased as you progressed? *
- ◯ Yes (there was a structured increment)
- ◯ No (I could learn something demanding in one lesson but something much easier in the ne xt)

Were you required to follow instructions rigorously? *
- ◯ Yes
- ◯ No

Rigorously: in a way that is strictly applied or adhered to

Were you required to follow or learn from notation rigorously? *
- ◯ Yes
- ◯ No

Rigorously: in a way that is strictly applied or adhered to

Were you required to follow a syllabus rigorously? *
- ◯ Yes
- ◯ No

Rigorously: in a way that is strictly applied or adhered to

Were you taught to improvise? *
- ◯ Yes
- ◯ No

Did you learn graded examination materials or sat for an exam on your main instrument? *
- ◯ Yes
- ◯ No

What kind of music learning/training background did your teacher have? *
- [ ] Western Classical music training
- [ ] Formal popular music training
- [ ] Informal learning experiences
- [ ] No idea
- [ ] Other

Practices (In lessons)

The questions below are in regards to the pr actices that you engaged with in lessons.

In lessons, were you taught to play by reading Western music notation or tablature? *
- ◯ Yes

- ◯ No

In lessons, were you taught to play by ear? *
- ◯ Yes
- ◯ No

In lessons, was there more emphasis to learn by reading notation, or by ear? *
- ◯ Notation
- ◯ Ear

Practices (Outside lessons)

The questions below are in regards to the practices that you engage with OUTSIDE of lessons.

Select from below a statement that best describes you during the time you were undertaking formal music lessons. *
- ◯ I do not spend time learning anything else besides what was taught to me in lessons
- ◯ I regularly learn (or attempt to learn) new songs/technique on my own in addition to what was taught in lessons

Rate your usage of/reliance on notation- and ear-based practices in your own music learning process OUTSIDE of lessons. *

	1	2	3	4	5	6	7	8	9	10	
Notation	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	Ear

*IGNORE NUMBERS

*Extreme end on either side (1 or 10) indicates 100% use of that practice (ear- OR notation-based ONLY)

*Any other selection indicates the percentages in which you use both practices.

*Example: selecting '2' indicates that 80% of how you learn music is accomplished with the use/reliance of notation-based practices, and only 20% is accomplished with the use/reliance of ear-based practices, and vice versa.

From the options below, select those that you use/engage with to learn music. *
- ☐ Listening and copying
- ☐ Observation of others
- ☐ Western music notation
- ☐ Tablature
- ☐ Chord charts
- ☐ Personalised notational system
- ☐ Casual interactions with peers or other musicians
- ☐ Cover videos
- ☐ Softwares/apps
- ☐ Instructional/tutorial videos
- ☐ Other

Why did you learn in this way? *
- ◯ It was the only way I knew how
- ◯ It was how others (friends, musicians you look up to, etc) were learning
- ◯ I was taught to do so
- ◯ I had no other choice (due to lack of funds, tools, parental disapproval, etc)
- ◯ Other

How long have you learned in this way? *
- ◯ Less than a 1 year
- ◯ 1-2 years
- ◯ 3-4 years
- ◯ 5-6 years
- ◯ 7-8 years
- ◯ 9-10 years
- ◯ More than 10 years

Did the way you learn change over the years? *
- ◯ Yes
- ◯ No

If you use a combination of notation- and ear-based practices, did you use them both from the start or was one incorporated later on? *
- ◯ Use both from the start
- ◯ Started with notation-based practices only, and incorporated ear-based practices later on
- ◯ Started with ear-based practices only, and incorporated notation-based practices later on
- ◯ Not Applicable (Used ear- OR notation-based practices ONLY)

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Popular Musicians' Learning Experience Survey

33% Probing - Informal only

Informal Context Only

Outside the confines of formal structured lessons (Self-taught, DIY, etc)

Was it your own choice to learn music informally? *
- Yes
- No

Did you parents play a role in this decision? *
- Yes
- No

Did you have friends who were learning to play music the same way at the time? *
- Yes
- No

Was learning to play your instrument always an individual activity? or did you engage in any peer-learning activities? *
- Individual activity only
- Individual and peer-learning activities
- Other

Individual activity only: No engagement with peers
Peer-learning activities: Learning to play songs/material on the instruments from peers, jamming, etc

Was the a lot of self-experimentation? *
- Yes
- No

Did you learn or attempt to improvise? *
- Yes
- No

Did you learn graded examination materials or sat for an exam on your main instrument? *
- Yes
- No

Did you use instructional content? (instructional books, magazines, online written/video tutorials, etc) *
- Yes
- No

How did you decide what to learn or play? *
- Whatever I was interested in
- Followed a syllabus
- Other

Practices

The questions below are in regards to the pr actices that you engaged in.

When learning a new song/material, did you copy by ear? *
- Yes
- No

When learning a new song/material, did you (to any degree) use Western music notation or tablature? *
- Yes
- No

Rate your usage of/reliance on notation- and ear-based practices in your own music learning process. *

	1	2	3	4	5	6	7	8	9	10	
Notation	○	○	○	○	○	○	○	○	○	○	Ear

*IGNORE NUMBERS

*Extreme end on either side (1 or 10) indicates 100% use of that pr actice (ear- OR notation-based ONLY)

*Any other selection indicates the percentages in which y ou use both practices.

*Example: selecting '2' indicates that 80% of how y ou learn music is accomplished with the use/reliance of notation-based practices, and only 20% is accomplished with the use/reliance of ear-based pr actices, and vice versa.

From the options below, select those that you use/engage with to learn music. *
- [ ] Listening and copying
- [ ] Observation of others
- [ ] Western music notation
- [ ] Tablature
- [ ] Chord charts
- [ ] Personalised notational system
- [ ] Casual interactions with peers or other musicians
- [ ] Cover videos
- [ ] Softwares/apps
- [ ] Instructional/tutorial videos
- [ ] Other

Why did you learn in this way? *
- It was the only way I knew how
- It was how others (friends, musicians y ou look up to, etc) were learning
- I was taught to do so

- ◯ I had no other choice (due to lack of funds, tools, parental disapproval, etc)
- ◯ Other

How long have you learned in this way? *

- ◯ Less than a 1 year
- ◯ 1-2 years
- ◯ 3-4 years
- ◯ 5-6 years
- ◯ 7-8 years
- ◯ 9-10 years
- ◯ More than 10 years

Did the way you learn change over the years? *

- ◯ Yes
- ◯ No

If you use a combination of notation- and ear-based practices, did you use them both from the start or was one incorporated later on? *

- ◯ Use both from the start
- ◯ Started with notation-based practices only, and incorporated ear-based practices later on
- ◯ Started with ear-based practices only, and incorporated notation-based practices later on
- ◯ Not Applicable (Used ear- OR notation-based practices ONLY)

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Transition

Questions below are in regards to your experience of transitioning into a different learning context only.

After learning the way you did, was it difficult to adapt to a different method/form of learning? *

- ◯ Yes
- ◯ No

Did you integrate your previous learning/playing habits into this new method or learning/playing music? *

- ◯ Yes
- ◯ No

Popular Musicians' Learning Experience Survey

53% Lived Experience

Lived experienced in your social and cultural world.

The following questions will ask about your experiences within your family, friends and school environments.

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Popular Musicians' Learning Experience Survey

60% Family

Family

Do any of your parents have a university degree? *
- ◯ Yes
- ◯ No

Select from below, characterisations that best describe your parent(s)/guardian(s) occupation. *
- ◯ Trades (Plumber, electrician, carpenter, baker, etc)
- ◯ Professions (Doctor, lawyer, scientist, architect, etc)
- ◯ Unskilled (Clerk, cleaner, maid, assembly line worker, etc)
- ◯ Businessman (owns a business)
- ◯ Other

Where did you spend the most of your music learning experience? *

Please select

Apart from you, do any other of your family members play an instrument? *
- ◯ Yes
- ◯ No

Did any one of your parents/guardians have music lessons before? *
- ◯ Yes
- ◯ No

What kinds of music do you recall hearing around the house?
- ☐ Western Classical music
- ☐ Popular Music
- ☐ Rock music
- ☐ Jazz music
- ☐ World music
- ☐ Other

Was your family supportive of your choice of music? *
- ◯ Yes
- ◯ No

Was your family supportive of your choice of instrument? *
- ◯ Yes
- ◯ No

Was your family supportive of your choice of music learning method? *

- ◯ Yes
- ◯ No

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Popular Musicians' Learning Experience Survey

67% Primary/Secondary School

Primary/Secondary School

Your answers to the questions below should only be based on your primary/secondary school experience

During your primary/secondary school years, what kinds of music were you taught in classroom music lessons?

- ☐ No music lessons
- ☐ Western Classical music
- ☐ Popular Music
- ☐ Rock music
- ☐ Jazz music
- ☐ World music
- ☐ Other

What kinds of music were your friends listening to at the time?

- ☐ Western Classical music
- ☐ Popular Music
- ☐ Rock music
- ☐ Jazz music
- ☐ World music
- ☐ Other

During your primary/secondary school years, did you have friends who played popular music as well (on any instrument)? *

- ◯ Yes
- ◯ No

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Popular Musicians' Learning Experience Survey

73% Sorting - University

University

Select an option that best describes your situation.

- ◯ I am currently pursuing a popular music degree/diploma
- ◯ I have graduated with a degree/diploma in popular music
- ◯ I did not study popular music at university/college level

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Popular Musicians' Learning Experience Survey

80% University

Did your music degree have a heavy usage of music theory? *

- ◯ Yes
- ◯ No

Did your music degree place more emphasis on creativity or technicality? *

- ◯ Creativity
- ◯ Technicality

Did your music degree place more emphasis on ear-playing abilities or notational skills? *

- ◯ Ear-playing abilities
- ◯ Notational skills

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Popular Musicians' Learning Experience Survey

87% Attitudes and Values

Attitudes and Values

How important are notational knowledge/skills to a popular musician?

1 2 3 4 5 6

Not important at all ○ ○ ○ ○ ○ ○ Very important

How important are ear-playing skills to a popular musician?

1 2 3 4 5 6

Not important at all ○ ○ ○ ○ ○ ○ Very important

Do you think notational skills/knowledge aided or hindered the development of your performing abilities? *

- ○ Aided
- ○ Hindered

Do you think ear-playing skills aided or hindered the development of your performing abilities? *

- ○ Aided
- ○ Hindered

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Popular Musicians' Learning Experience Survey

93% Identity

Identity

Do you prefer to play covers or originals? *

- ○ Covers
- ○ Originals

Do you prefer to be a creative artist or a session musician? *

- ○ Creative artist
- ○ Session musician

How proficient are you with learning a song only from notation?

1 2 3 4 5 6 7

Not very proficient ○ ○ ○ ○ ○ ○ ○ Very proficient

How proficient are you with learning a song only by ear?

1 2 3 4 5 6 7

Not very proficient ○ ○ ○ ○ ○ ○ ○ Very proficient

How proficient are you with improvisation?

1 2 3 4 5 6 7

Not very proficient ○ ○ ○ ○ ○ ○ ○ Very proficient

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Appendix 5: Participation Information Sheet and Consent Form

Popular Musicians' Learning Experience Survey

0% Participation Information Sheet

PARTICIPATION INFORMATION SHEET

An exploration into the impact of music learning experience on the musical skills of popular musicians

Researcher(s): Hueyuen Choong

Supervisor: Professor Jonathan Stockdale

You are being invited to take part in a research study on music learning experience and its subsequent influence on musical skills, attitudes and values. There is evidence from studies that the learning experience of popular musicians today have evolved from informal ear-centric practices to include a wide variety of learning context and practice which are the result of the formalisation of popular music learning and information technological advancements. This suggests that the general make-up of popular musicians today will differ from those of the past. The purpose of this study is to discover to what extent do they differ, and in what ways do their learning experience influence their attitudes, values and musical skills.

This research is being undertaken as part of the researcher's studies for PhD in Music programme at the University of Westminster.

The study will involve you:

Completing an online questionnaire enquiring about

- The practices and context in which you engaged in throughout your music learning history.
- Your lived experience in your general social and cultural world.
- Your attitudes towards, and values placed on ear, notational, and improvisational skills.

You may be invited for a follow up interview. If you are, this will involve you:

Participating in an interview with me, to understand your music learning experience in more detail.

- This will take about 1 hour and it will be audio-recorded and later transcribed.

Performing a variety of musical task on your chosen instrument.

- Sight-reading
- Play by ear
- Improvisation
- A prepared performance
    - Choice of music is entirely up to you, but it should be a performance that can showcase the extent of your musicality.
    - You may choose to play with a band or with a track (in which you need to bring to the interview)

Please note:

Why am I invited?

You have been invited because this study intends to study the learning experiences of musicians who has a performing career in the popular music scene or is working towards one.

Do I have to take part?

Participation is entirely voluntary and you can withdraw from the project at any time without prejudice.

What will happen if I don't want to carry on with the study?

You have the right to withdraw at any time without giving a reason. Data obtained up till that point will be used in the study. However, you have the right to ask for your data to be withdrawn and for personal information to be destroyed.

Will my taking part in the study be kept confidential?

Your responses will be kept confidential unless you provide explicit consent to do otherwise. No individuals should be identifiable from any collated data, written report of the research, or any publications arising from it.

What will happen to the information which I give?

All computer data files will be encrypted and password protected. The researcher will keep files in a secure place and will comply with the requirements of the Data Protection Act.

All hard copy documents, e.g. consent forms, completed questionnaires, etc. will be kept securely and in a locked cupboard, wherever possible on University premises.

Documents may be scanned and stored electronically. This may be done to enable secure transmission of data to the university's secure computer systems.

Research data and related materials will be retained for a minimum of **10 years** after the study has been completed.

What if I do not want to answer a particular question?

The survey questions are tailored to your learning experience and conditioned to the answers that you provide, thus all questions will require a response. However, you do not have to answer particular questions in the interviews if you do not wish to do so.

What are the benefits of participation?

Personal benefits

- Survey
  - You will have a better understanding of your experience of becoming a popular musician in correlation to others.
- Follow up interview
  - You will have a better understanding of how and in what ways your own learning history has the potential to impact
    - your level of proficiency in a variety of musical performing skills
    - your inclinations
    - your attitude, values and perception towards those skills, and the factors that contributed to it

General benefits

- This research will provide insights into the music learning experience of young budding popular musicians and how it may differ from popular musicians of the past due to the development of formal popular music education. This in turn can inform higher popular music education providers of the learning characteristics of their current and potential students.
- The findings of this study may propagate change in popular music education by contributing towards the establishment of theory in regards to the relationship between music learning experiences and musical performance-related skills.

What are the possible risks and disadvantages of taking part?

I do not envisage any negative consequences for you in taking part. I will be happy to discuss with you how you found the experience, and we can pause or discontinue the research at any time.

What will happen to the result of the research study?

The result of the study will be presented in a PhD thesis, conferences, and may be written up in journals.

Who has reviewed the study?

This study was reviewed by University of Westminster's University Research Ethics Committee, in line with the University's Code of Practice Governing the Ethical Conduct of Research.

Can I get a copy of the recordings and/or results?

If you wish you can receive the recordings and/or information on the results of the research. Please indicate on the consent form if you would like to receive this information.

What if there's a problem?

The researcher can be contacted during and after participation by email (h.choong@my.westminster.ac.uk) or by telephone (07446928917).

If you have a complaint about this research project you can contact the project supervisor, Professor Jonathan Stockdale by e-mail (J.Stockdale@westminster.ac.uk) or by telephone (0207 911 5000 ext 68470).

Popular Musicians' Learning Experience Survey

7% Consent Form

CONSENT FORM

Title of Study: An exploration into the impact of music learning experience on the musical skills of popular musicians

Lead researcher: Hueyuen Choong

I have been given the Participation Information Sheet and/or had its contents explained to me. *
- Yes

I have had an opportunity to ask any questions and I am satisfied with the answers given. *
- Yes

I understand I have a right to withdraw from the research at any time and I do not have to provide a reason. *
- Yes

I understand that if I withdraw from the research any data included in the results will be removed if that is practicable (I understand that once anonymised data has been collated into other datasets it may not be possible to remove that data). *
- Yes

I understand the study includes undertaking research on music learning experiences. *
- Yes

I would like to receive information relating to the results from this study. *
- Yes
- No

I wish to receive a copy of this Consent form. *
- Yes
- No

I confirm I am willing to be a participant in the above research study. *
- Yes

I note that the data collected may be retained in an archive and I am happy for my data to be reused as part of future research activities. I note my data will be completely confidential, and where possible, anonymised *
- Yes

I confirm that I would be willing to participate in a follow up interview (if selected). *
- Yes
- No

Name *

First Last

Email *

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Appendix 6: Sample Profiling

Geographical Profiling (Each Context Category)

Profiles (Formal)	Reference (Malaysia)		China		Malaysia	
N=	9		2		9	
	Profile	Points	Profile	Points	Profile	Points
B6_Classical_training	1	x	1	x	1	x
F1_context_instrumental	1	x	1	x	1	x
F1_context_school	1	x	1	x	1	x
F1_context_uni	1	x	1	x	1	x
F2_choice	1	x	1	x	1	x
F3_parents	1	x	1	x	1	x
F4_method	1	x	1 or 0	x	1	x
F5_individual	1	x	0	0	1	x
F6_lesson_autonomy	2	x	1 or 2	x	2	x
F7_lesson_organised	1	x	1	x	1	x
F8_lesson_difficulty_increament	1	x	1 or 0	x	1	x
F9_lesson_follow_instruction	1	x	1	x	1	x
F10_lesson_follow_notation	1	x	1 or 0	x	1	x
F11_lesson_follow_syllabus	0	x	1	x	0	x
F12_lesson_improvise	0	x	1	x	0	x
F13_lesson_graded_exams	1	x	1	x	1	x
F14_teacher_classical	1	x	1	x	1	x
F14_teacher_formal_pop	1	x	1	x	1	x
F14_teacher_informal	1	x	0	0	1	x
F15_lesson_notation	1	x	1	x	1	x
F16_lesson_ear	0	x	1	x	0	x
F17_lesson_emphasis	1	x	1 or 0	x	1	x
F18_out_new_material	1	x	1	x	1	x
F19_out_reliance	2 to 5	x	6 or 7	x	2 to 5	x
F20_out_tools_listening	1	x	1	x	1	x
F20_out_tools_observation	1	x	1	x	1	x
F20_out_tools_notation	1	x	1	x	1	x
F20_out_tools_tabs	0	x	0	x	0	x
F20_out_tools_chord_charts	1	x	0	0	1	x
F20_out_tools_personalised	1	x	0	0	1	x
F20_out_tools_interactions	1	x	0	0	1	x
F20_out_tools_covers	1	x	1	x	1	x
F20_out_tools_apps	1	x	1	x	1	x
F20_out_tools_tutorials	1	x	0	0	1	x
F21_out_why	3	x	2	0	3	x
F23_out_change	1	x	2	0	1	x
F24_out_start_practice	3	x	1 or 2	x	3	x

HU1_sorting	1 or 2	x	1 or 2	x	1 or 2	x
HU2_theory	1	x	1 or 0	x	1	x
HU3_creativity_technicality	1 or 2	x	1 or 2	x	1 or 2	x
HU4_notation_ear	1	x	2	0	1	x
Total		41		32		41
Percentage				78%		100%

Profiles (Informal)	Reference (Malaysia)		Australia		China		Malaysia		United Kingdom	
N=	11		1		1		11		6	
	Profile	Points	Profile	Points	Profile	Points	Profile	Points	Profile	Points
B6_Classical_training	1	x	0	z	1	x	1	x	0	z
I1_choice	1	x	1	x	1	x	1	x	1	x
I2_parents	1	x	0	z	1	x	1	x	0	z
I3_friends_same	0	x	0	x	0	x	0	x	1	x
I4_individual	0	x	0	x	1	z	0	x	0	x
I5_experimentation	1	x	1	x	1	x	1	x	1	x
I6_improvise	1	x	1	x	1	x	1	x	1	x
I7_graded_exam	0	x	0	x	1	x	0	x	0	x
I8_instructional_content	1	x	0	z	1	x	1	x	1	x
I9_decide	1	x	1	x	2	z	1	x	1	x
I10_ear	1	x	1	x	0	z	1	x	1	x
I11_notation	1	x	1	x	1	x	1	x	0	z
I12_reliance	Various	x	9	x	2	x	Various	x	5 or 10	x
I13_tools_listening	1	x	1	x	1	x	1	x	1	x
I13_tools_observation	1	x	1	x	1	x	1	x	1	x
I13_tools_notation	0	x	1	z	1	z	0	x	0	x
I13_tools_tabs	0	x	0	x	1	z	0	x	0	x
I13_tools_chord_charts	1	x	1	x	1	x	1	x	0	z
I13_tools_personalised	0	x	0	x	1	z	0	x	0	x
I13_tools_interactions	1	x	1	x	1	x	1	x	1	x
I13_tools_covers	1	x	0	z	1	x	1	x	0	z
I13_tools_apps	0	x	0	x	1	z	0	x	1	z
I13_tools_tutorials	1	x	0	z	1	x	1	x	0	z
I14_why	1, 2 or 5	x	1	x	2	x	1, 2 or 5	x	1 or 2	x
I16_change	1	x	1	x	1	x	1	x	1 and 0	x
I17_start_practice	1, 2 or 3	x	3	x	2	x	1, 2 or 3	x	4	z
HU1_sorting	1	x	3	z	1	x	1	x	1	x
HU2_theory	1	x	n/a	n/a	1	x	1	x	1 or 0	x
HU3_creativity_technicality	1 or 2	x	n/a	n/a	2	x	1 or 2	x	1 or 2	x
HU4_notation_ear	1 or 2	x	n/a	n/a	2	x	1 or 2	x	1	x
Total		30		20		23		30		22
Percentage				74%		77%		100%		73%

Profiles (F-I)	Reference (Malaysia)		Australia		China		Malaysia		United Kingdom	
N=	39		3		1		39		5	
	Profile	Points	Profile	Points	Profile	Points	Profile	Points	Profile	Points
B6_Classical_training	1	x	1	x	0	z	1	x	1	x
CForI1_context_instrumental	1	x	1	x	0	z	1	x	1	x
CForI1_context_school	0	x	1	z	0	x	0	x	1	z
CForI1_context_uni	1	x	1	x	1	x	1	x	1	x
CForI2_choice	1	x	1	x	1	x	1	x	0	z
CForI3_parents	1	x	1	x	1	x	1	x	1	x
CForI4_method	1	x	1	x	1	x	1	x	1	x
CForI5_individual	0	x	1	z	0	x	0	x	0	x
CForI6_lesson_autonomy	3	x	3	x	1	z	3	x	3	x
CForI7_lesson_organised	1	x	1	x	1	x	1	x	1	x
CForI8_lesson_difficulty_increament	1	x	1	x	1	x	1	x	1	x
CForI9_lesson_follow_instruction	0	x	1	x	1	x	0	x	1	x
CForI10_lesson_follow_notation	1	x	1	x	1	x	1	x	0	z
CForI11_lesson_follow_syllabus	1	x	1	x	1	x	1	x	0	z
CForI12_lesson_improvise	1	x	0	z	1	x	1	x	0	z
CForI13_lesson_graded_exams	1	x	1	x	0	z	1	x	0	z
CForI14_teacher_classical	1	x	1	x	0	z	1	x	1	x
CForI14_teacher_formal_pop	1	x	1	x	1	x	1	x	1	x
CForI14_teacher_informal	0	x	1	z	0	x	0	x	1	z
CForI15_lesson_notation	1	x	1	x	0	z	1	x	1	x
CForI16_lesson_ear	1	x	0	z	1	x	1	x	0	z
CForI17_lesson_emphasis	1	x	1	x	2	z	1	x	1	x
CForI18_out_new_material	1	x	1	x	1	x	1	x	1	x
CForI19_out_reliance	All (peak at 5, 7 and 8)	x	3, 7 & 8	x	7	x	All (peak at 5, 7 and 8)	x	3, 4, 7 & 8	x
CForI20_out_tools_listening	1	x	1	x	1	x	1	x	1	x
CForI20_out_tools_observation	1	x	1	x	0	z	1	x	1	x
CForI20_out_tools_notation	1	x	1	x	0	z	1	x	1	x
CForI20_out_tools_tabs	0	x	1	z	0	x	0	x	0	x
CForI20_out_tools_chord_charts	1	x	1	x	0	z	1	x	1	x
CForI20_out_tools_personalised	0	x	0	x	0	x	0	x	0	x
CForI20_out_tools_interactions	0	x	1	z	0	x	0	x	1	x
CForI20_out_tools_covers	1	x	1	x	1	x	1	x	0	z
CForI20_out_tools_apps	0	x	1	z	0	x	0	x	0	x
CForI20_out_tools_tutorials	1	x	1	x	0	z	1	x	0	z
CForI21_out_why	1 and 3	x	1,2 & 4	z	1	x	1 and 3	x	1-5	x
CForI23_out_change	1	x	1	x	1	x	1	x	1	x
CForI24_out_start_practice	2	x	2	x	2	x	2	x	2	x

CForIn1_trans_difficult	1	x	0	x	1	x	1	x	1	x
CForIn2_trans_integrate	1	x	1	x	1	x	1	x	1	x
CFIn1_choice	1	x	1	x	1	x	1	x	1	x
CFIn2_parents	0	x	0	x	1	z	0	x	0	x
CFIn3_friends_same	1	x	1	x	1	x	1	x	1	x
CFIn4_individual	0	x	0	x	0	x	0	x	0	x
CFIn5_experimentation	1	x	1	x	1	x	1	x	1	x
CFIn6_improvise	1	x	1	x	1	x	1	x	1	x
CFIn7_graded_exam	1	x	0	z	0	z	1	x	1	x
CFIn8_instructional_content	1	x	1	x	1	x	1	x	1	x
CFIn9_decide	1	x	1	x	1	x	1	x	1	x
CFIn10_ear	1	x	1	x	1	x	1	x	1	x
CFIn11_notation	1	x	1	x	0	z	1	x	0	z
CFIn12_reliance	6, 7 & 8	x	7 and 8	x	6	x	6, 7 & 8	x	7 and 8	x
CFIn13_tools_listening	1	x	1	x	1	x	1	x	1	x
CFIn13_tools_observation	1	x	1	x	0	z	1	x	1	x
CFIn13_tools_notation	1	x	1	x	0	z	1	x	0	z
CFIn13_tools_tabs	0	x	1	z	0	x	0	x	1	z
CFIn13_tools_chord_charts	1	x	1	x	0	z	1	x	1	x
CFIn13_tools_personalised	0	x	0	x	0	x	0	x	0	x
CFIn13_tools_interactions	0	x	1	z	0	x	0	x	1	z
CFIn13_tools_covers	1	x	1	x	0	z	1	x	1	x
CFIn13_tools_apps	0	x	0	x	1	z	0	x	0	x
CFIn13_tools_tutorials	1	x	1	x	0	z	1	x	1	x
CFIn14_why	1	x	1,2 and 4	x	1	x	1	x	1	x
CFIn16_change	1	x	1	x	1	x	1	x	1	x
CFIn17_start_practice	2	x	2	x	1	z	2	x	1 and 2	x
HU1_sorting	1 and 2	x	2	x	1	x	1 and 2	x	1 and 2	x
HU2_theory	1	x	1	x	1	x	1	x	1	x
HU3_creativity_technicality	1 and 2	x	1 and 2	x	1	x	1 and 2	x	1 and 2	x
HU4_notation_ear	1	x	2	z	1	x	1	x	2	z
Total		68		55		47		68		53
Percentage				81%		69%		100%		78%

Profiles (I-F)	Reference (Malaysia)		Malaysia		UK	
N=	24		24		8	
	Profile	Points	Profile	Points	Profile	Points
B6_Classical_training	1	x	1	x	1	x
CInF1_choice	1	x	1	x	1	x
CInF2_parents	0	x	0	x	0	x
CInF3_friends_same	1	x	1	x	1	x
CInF4_individual	1 and 0 (equal)	x	1 and 0 (equal)	x	1 and 0 (equal)	x
CInF5_experimentation	1	x	1	x	1	x
CInF6_improvise	1	x	1	x	1	x
CInF7_graded_exam	1	x	1	x	1 and 0 (equal)	x
CInF8_instructional_content	1	x	1	x	1	x
CInF9_decide	1	x	1	x	1	x
CInF10_ear	1	x	1	x	1	x
CInF11_notation	1	x	1	x	1	x
CInF12_reliance	8	x	8	x	8	x
CInF13_tools_listening	1	x	1	x	1	x
CInF13_tools_observation	1	x	1	x	1	x
CInF13_tools_notation	1	x	1	x	0	z
CInF13_tools_tabs	0	x	0	x	0	x
CInF13_tools_chord_charts	1	x	1	x	1	x
CInF13_tools_personalised	0	x	0	x	0	x
CInF13_tools_interactions	0	x	0	x	1	z
CInF13_tools_covers	1	x	1	x	1	x
CInF13_tools_apps	0	x	0	x	0	x
CInF13_tools_tutorials	1	x	1	x	1	x
CInF14_why	1	x	1	x	1	x
CInF16_change	1	x	1	x	1	x
CInF17_start_practice	3	x	3	x	3	x
CInFor1_trans_difficult	0	x	0	x	1 and 0 (equal)	x
CInFor2_trans_integrate	1	x	1	x	1	x
CIFor1_context_instrumental	1	x	1	x	1	x
CIFor1_context_school	0	x	0	x	0	x
CIFor1_context_uni	1	x	1	x	1	x
CIFor2_choice	1	x	1	x	1	x
CIFor3_parents	1	x	1	x	1	x
CIFor4_method	1	x	1	x	0	x
CIFor5_individual	0	x	0	x	0	x
CIFor6_lesson_autonomy	2	x	2	x	1 and 2 (equal)	x
CIFor7_lesson_organised	1	x	1	x	1	x
CIFor8_lesson_difficulty_increament	1	x	1	x	1	x
CIFor9_lesson_follow_instruction	0	x	0	x	1	x
CIFor10_lesson_follow_notation	1 and 0 (equal)	x	1 and 0 (equal)	x	1	x

CIFor11_lesson_follow_syllabus	0	x	0	x	1 and 0 (equal)	x
CIFor12_lesson_improvise	1	x	1	x	1 and 0 (equal)	x
CIFor13_lesson_graded_exams	1	x	1	x	1	x
CIFor14_teacher_classical	0	x	0	x	1	z
CIFor14_teacher_formal_pop	1	x	1	x	1	x
CIFor14_teacher_informal	0	x	0	x	0	x
CIFor15_lesson_notation	1	x	1	x	1	x
CIFor16_lesson_ear	1	x	1	x	1 and 0 (equal)	x
CIFor17_lesson_emphasis	2	x	2	x	1	x
CIFor18_out_new_material	1	x	1	x	1	x
CIFor19_out_reliance	8	x	8	x	8	x
CIFor20_out_tools_listening	1	x	1	x	1	x
CIFor20_out_tools_observation	1	x	1	x	1	x
CIFor20_out_tools_notation	1	x	1	x	0	z
CIFor20_out_tools_tabs	0	x	0	x	0	x
CIFor20_out_tools_chord_charts	1	x	1	x	1	x
CIFor20_out_tools_personalised	0	x	0	x	0	x
CIFor20_out_tools_interactions	1	x	1	x	0	z
CIFor20_out_tools_covers	1	x	1	x	0	z
CIFor20_out_tools_apps	0	x	0	x	0	x
CIFor20_out_tools_tutorials	1	x	1	x	1	x
CIFor21_out_why	2	x	2	x	1	z
CIFor23_out_change	1	x	1	x	1 and 0 (equal)	x
CIFor24_out_start_practice	3	x	3	x	3	x
HU1_sorting	1	x	1	x	1	x
HU2_theory	1	x	1	x	0	z
HU3_creativity_technicality	2	x	2	x	1	z
HU4_notation_ear	1	x	1	x	1	x
Total		68		68		59
Percentage				100%		87%

Interviewee Similarity Index (Each Context Category)

Formal	Reference (Global)		Yasmin		Haley	
	N=11					
	Profile	Points	Profile	Points	Profile	Points
B6_Classical_training	1	x	1	x	1	x
F2_choice	1	x	0	z	1	x
F3_parents	1	x	1	x	0	z
F4_method	1	x	1	x	0	x
F5_individual	1	x	0	x	1	x
F6_lesson_autonomy	2	x	3	z	2	x
F7_lesson_organised	1	x	1	x	1	x
F8_lesson_difficulty_increament	1	x	1	x	1	x
F9_lesson_follow_instruction	1	x	1	x	1	x
F10_lesson_follow_notation	1	x	1	x	0	x
F11_lesson_follow_syllabus	1	x	1	x	0	x
F12_lesson_improvise	1	x	0	x	1	x
F13_lesson_graded_exams	1	x	1	x	1	x
F14_teacher_classical	1	x	1	x	1	x
F14_teacher_formal_pop	1	x	1	x	1	x
F14_teacher_informal	0	x	0	x	1	z
F15_lesson_notation	1	x	1	x	1	x
F16_lesson_ear	1	x	0	x	1	x
F17_lesson_emphasis	1	x	1	x	2	x
F18_out_new_material	1	x	0	z	1	x
F19_out_reliance	5,6 or 8	x	2	z	3	z
F20_out_tools_listening	1	x	1	x	1	x
F20_out_tools_observation	1	x	0	z	1	x
F20_out_tools_notation	1	x	1	x	1	x
F20_out_tools_tabs	0	x	0	x	0	x
F20_out_tools_chord_charts	1	x	1	x	1	x
F20_out_tools_personalised	0	x	0	x	1	z
F20_out_tools_interactions	0	x	1	z	0	x
F20_out_tools_covers	1	x	1	x	1	x
F20_out_tools_apps	0	x	0	x	1	z
F20_out_tools_tutorials	0	x	0	x	1	z
F21_out_why	3	x	3	x	4	x
F23_out_change	1	x	1	x	1	x
F24_out_start_practice	1 and 3 (equal)	x	2	z	3	x
HU1_sorting	1 and 2 (equal)	x	1	x	1	x
HU2_theory	1	x	1	x	0	z
HU3_creativity_technicality	1 and 2 (equal)	x	2	x	2	x
HU4_notation_ear	1	x	1	x	1	x
Total		38		31		31
Percentage				82%		82%

Informal	Reference (Global)		Keith		Zayne	
	N=24					
	Profile	Points	Profile	Points	Profile	Points
B6_Classical_training	0	x	1	z	1	z
I1_choice	1	x	1	x	1	x
I2_parents	0	x	0	x	1	z
I3_friends_same	1 and 0 (equal)	x	0	x	1	x
I4_individual	0	x	0	x	0	z
I5_experimentation	1	x	1	x	1	x
I6_improvise	1	x	1	x	1	x
I7_graded_exam	0	x	0	x	0	x
I8_instructional_content	1	x	1	x	0	z
I9_decide	1	x	1	x	1	x
I10_ear	1	x	1	x	1	x
I11_notation	1	x	1	x	1	x
I12_reliance	8 and 10 (equal)	x	6	z	8	x
I13_tools_listening	1	x	1	x	1	x
I13_tools_observation	1	x	1	x	1	x
I13_tools_notation	0	x	0	x	0	x
I13_tools_tabs	0	x	0	x	1	z
I13_tools_chord_charts	1	x	1	x	1	x
I13_tools_personalised	0	x	0	x	1	z
I13_tools_interactions	1	x	1	x	1	x
I13_tools_covers	1	x	1	x	1	x
I13_tools_apps	0	x	1	z	0	x
I13_tools_tutorials	1	x	0	z	0	z
I14_why	1	x	2	z	5	z
I16_change	1	x	0	z	1	x
I17_start_practice	3	x	1	x	3	x
HU1_sorting	1 and 2	x	1	x	3	z
HU2_theory	1	x	1	x	n/a	n/a
HU3_creativity_technicality	1	x	2	x	n/a	n/a
HU4_notation_ear	1	x	2	x	n/a	n/a
Total		30		24		18
Percentage				80%		67%

F-I	Reference (Global)		Ellie		Sarah	
	N=62					
	Profile	Points	Profile	Points	Profile	Points
B6_Classical_training	1	x	1	x	1	x
CForI2_choice	1	x	1	x	1	x
CForI3_parents	1	x	1	x	0	z
CForI4_method	1	x	1	x	1	x
CForI5_individual	0	x	0	x	0	x
CForI6_lesson_autonomy	3	x	3	x	3	x
CForI7_lesson_organised	1	x	0	z	1	x
CForI8_lesson_difficulty_increament	1	x	1	x	1	x
CForI9_lesson_follow_instruction	1	x	0	x	0	x
CForI10_lesson_follow_notation	1	x	0	z	1	x
CForI11_lesson_follow_syllabus	1	x	0	x	1	x
CForI12_lesson_improvise	1	x	0	x	1	x
CForI13_lesson_graded_exams	1	x	1	x	1	x
CForI14_teacher_classical	1	x	1	x	1	x
CForI14_teacher_formal_pop	0	x	1	z	1	z
CForI14_teacher_informal	0	x	1	z	1	z
CForI15_lesson_notation	1	x	1	x	1	x
CForI16_lesson_ear	1	x	0	x	1	x
CForI17_lesson_emphasis	1	x	1	x	2	z
CForI18_out_new_material	1	x	1	x	1	x
CForI19_out_reliance	5, 7 and 8	x	10	z	5	x
CForI20_out_tools_listening	1	x	1	x	1	x
CForI20_out_tools_observation	1	x	1	x	1	x
CForI20_out_tools_notation	1	x	1	x	1	x
CForI20_out_tools_tabs	0	x	0	x	0	x
CForI20_out_tools_chord_charts	1	x	1	x	1	x
CForI20_out_tools_personalised	0	x	0	x	1	z
CForI20_out_tools_interactions	1	x	0	z	1	x
CForI20_out_tools_covers	1	x	1	x	1	x
CForI20_out_tools_apps	0	x	0	x	0	x
CForI20_out_tools_tutorials	0	x	1	z	1	z
CForI21_out_why	1,2 and 3	x	1	x	3	x
CForI23_out_change	1	x	1	x	1	x
CForI24_out_start_practice	2	x	2	x	3	z
CForIn1_trans_difficult	0	x	1	x	1	x
CForIn2_trans_integrate	1	x	1	x	1	x
CFIn1_choice	1	x	1	x	1	x
CFIn2_parents	0	x	0	x	0	x

CFIn3_friends_same	1	x	0	z	1	x
CFIn4_individual	0	x	1	z	0	x
CFIn5_experimentation	1	x	1	x	1	x
CFIn6_improvise	1	x	1	x	1	x
CFIn7_graded_exam	1	x	1	x	1	x
CFIn8_instructional_content	1	x	1	x	1	x
CFIn9_decide	1	x	1	x	1	x
CFIn10_ear	1	x	1	x	1	x
CFIn11_notation	1	x	0	z	1	x
CFIn12_reliance	7 and 8	x	10	z	6	z
CFIn13_tools_listening	1	x	1	x	1	x
CFIn13_tools_observation	1	x	1	x	1	x
CFIn13_tools_notation	1	x	1	x	1	x
CFIn13_tools_tabs	0	x	0	x	0	x
CFIn13_tools_chord_charts	1	x	1	x	1	x
CFIn13_tools_personalised	0	x	0	x	1	z
CFIn13_tools_interactions	0	x	0	x	0	x
CFIn13_tools_covers	1	x	1	x	1	x
CFIn13_tools_apps	0	x	0	x	0	x
CFIn13_tools_tutorials	1	x	1	x	1	x
CFIn14_why	1 and 2	x	1	x	2	x
CFIn16_change	1	x	1	x	1	x
CFIn17_start_practice	1 and 2	x	2	x	1	x
HU1_sorting	1 and 2	x	1	x	2	x
HU2_theory	1	x	1	x	1	x
HU3_creativity_technicality	1	x	2	x	2	x
HU4_notation_ear	1	x	1	x	2	x
Total		65		54		56
Percentage				83%		86%

I-F	Reference (Global)		Eddard		Mateo	
	N=36					
	Profile	Points	Profile	Points	Profile	Points
B6_Classical_training	1	x	0	z	1	x
CInF1_choice	1	x	1	x	1	x
CInF2_parents	0	x	1	z	1	z
CInF3_friends_same	1	x	1	x	0	z
CInF4_individual	0	x	0	x	1	z
CInF5_experimentation	1	x	1	x	1	x
CInF6_improvise	1	x	1	x	1	x
CInF7_graded_exam	1	x	0	z	1	x
CInF8_instructional_content	1	x	1	x	1	x
CInF9_decide	1	x	1	x	1	x
CInF10_ear	1	x	1	x	1	x
CInF11_notation	1	x	1	x	1	x
CInF12_reliance	8	x	8	x	8	x
CInF13_tools_listening	1	x	1	x	1	x
CInF13_tools_observation	1	x	1	x	1	x
CInF13_tools_notation	0	x	1	z	1	z
CInF13_tools_tabs	0	x	0	x	0	x
CInF13_tools_chord_charts	1	x	1	x	0	z
CInF13_tools_personalised	0	x	1	z	0	x
CInF13_tools_interactions	1	x	1	x	0	z
CInF13_tools_covers	1	x	1	x	1	x
CInF13_tools_apps	0	x	0	x	0	x
CInF13_tools_tutorials	1	x	1	x	1	x
CInF14_why	1	x	2	z	1	x
CInF16_change	1	x	1	x	1	x
CInF17_start_practice	3	x	3	x	3	x
CInFor1_trans_difficult	0	x	0	x	0	x
CInFor2_trans_integrate	1	x	1	x	1	x
CIFor2_choice	1	x	1	x	1	x
CIFor3_parents	1	x	1	x	1	x
CIFor4_method	0	x	1	x	0	x
CIFor5_individual	0	x	0	x	0	x
CIFor6_lesson_autonomy	2	x	1	z	2	x
CIFor7_lesson_organised	1	x	0	z	1	x
CIFor8_lesson_difficulty_increament	1	x	1	x	1	x
CIFor9_lesson_follow_instruction	1	x	0	x	0	x
CIFor10_lesson_follow_notation	1	x	0	x	0	x
CIFor11_lesson_follow_syllabus	0	x	0	x	1	x
CIFor12_lesson_improvise	1	x	1	x	1	x

CIFor13_lesson_graded_exams	1	x	1	x	1	x
CIFor14_teacher_classical	0	x	0	x	0	x
CIFor14_teacher_formal_pop	1	x	1	x	1	x
CIFor14_teacher_informal	1	x	0	z	0	z
CIFor15_lesson_notation	1	x	1	x	1	x
CIFor16_lesson_ear	1	x	0	z	1	x
CIFor17_lesson_emphasis	2	x	1	x	2	x
CIFor18_out_new_material	1	x	1	x	1	x
CIFor19_out_reliance	8	x	8	x	8	x
CIFor20_out_tools_listening	1	x	1	x	1	x
CIFor20_out_tools_observation	1	x	1	x	1	x
CIFor20_out_tools_notation	1	x	1	x	1	x
CIFor20_out_tools_tabs	0	x	0	x	0	x
CIFor20_out_tools_chord_charts	1	x	1	x	1	x
CIFor20_out_tools_personalised	0	x	1	z	0	x
CIFor20_out_tools_interactions	1	x	1	x	0	z
CIFor20_out_tools_covers	0	x	1	z	0	x
CIFor20_out_tools_apps	0	x	0	x	1	z
CIFor20_out_tools_tutorials	1	x	1	x	1	x
CIFor21_out_why	2	x	2	x	2	x
CIFor23_out_change	1	x	1	x	1	x
CIFor24_out_start_practice	1 and 3	x	3	x	3	x
HU1_sorting	1 and 2	x	1	x	2	x
HU2_theory	1	x	1	x	1	x
HU3_creativity_technicality	2	x	2	x	1	x
HU4_notation_ear	1	x	2	z	1	x
Total		65		52		56
Percentage				80%		86%

Appendix 7: Raw Data

Sample of Survey Data

#	HF1_parents_degree	HF2_parents_job	HF3_country	HF4_family_instrument	HF5_parents_lessons	HF7_choice_music	HF8_choice_instrument	HF9_choice_method	HS3_friends_instrument	HU1_sorting	HU2_theory	HU3_creativity_technicality	HU4_notation_ear	HV1_notation	HV2_ear	HV3_notation_aided	HV4_ear_aided	HV5_converginals	HV6_creative_session	HV7_proof_notation	HV8_proof_ear	HV9_proof_impov	Status
224	1	2	20	0	0	1	1	1	0	1	0	1	1	5	5	1	1	1	1	5	3	4	complete
223	1	4	11	0	0	1	1	1	1	1	0	1	1	4	6	1	1	2	2	3	7	6	complete
221	1	2	20	0	0	1	1	1	1	1	0	2	2	4	6	1	1	2	1	3	7	7	complete
218	1	4	20	1	0	1	1	3	1	1	0	2	1	6	6	1	1	2	1	2	6	7	complete
217	1	4	5	0	0	1	1	1	1	1	0	1	1	5	5	1	1	1	1	5	5	6	complete
216																							incomplet
215	1	2	20	0	1	1	1	1	1	1	0	1	1	4	6	1	0	2	1	2	6	7	complete
214	1	2	20	1	0	1	1	1	1	1	1	1	1	4	6	1	1	1	1	3	3	6	complete
213	1	4	10	1	1	1	1	1	0	1	0	1	2	6	6	1	1	1	1	2	6	2	complete
212	1	2	17	0	1	1	1	1	1	1	1	1	2	6	6	1	1	2	1	5	4	4	complete
210	1	2	20	1	0	1	1	1	0	1	0	1	1	2	6	0	1	2	1	2	7	4	complete
209	0	2	20	1	1	1	1	1	1	1	0	1	1	4	6	1	1	2	1	2	7	6	incomplet
208	1	1	20	1	0	1	1	1	1	1	0	2	1	4	6	1	1	2	1	2	7	6	complete
207	1	2	6	1	1	1	1	3	1	1	1	1	1	2	4	1	1	2	1	5	7	6	complete
206	0	2	20	1	0	1	1	3	1	1	0	1	2	2	4	1	1	2	1	5	7	6	complete
205	1	2	20	1	0	1	1	3	1	1	1	1	2	5	6	0	1	1	1	2	5	4	complete
204	1	4	13	1	1	1	3	3	0	1	1	2	1	4	4	1	1	2	1	2	5	4	complete
203	0	2	2	1	0	1	1	1	1	1	0	1	1	3	5	1	1	2	1	4	5	6	complete
202	1	2	20	0	0	1	3	3	1	1	1	1	1	4	5	1	1	2	1	4	4	4	complete
200	1	1	20	1	0	1	1	1	1	1		1	1	1	4	1	1	2	1	5	5	4	incomplet
198	0	3	17	0	0	1	1	1	0	1	0	1	1	1	4	1	1	2	1	5	5	5	complete
196	1	2	20	1	1	1	1	1	1	1	0	2	2	6	6	1	1	2	2	3	7	7	complete
195	1	4	14	0	0	1	3	3	0	1	0	1	1	6	6	1	1	2	1	7	7	7	complete
194	0	4	20	1	0	1	1	1	0	1	0	1	1	2	5	1	1	2	1	4	6	5	complete
193	1	3	20	0	0	1	1	3															incomplet
192	1	4	7	1	1	1	1	1	1	3				5	5	1	1	1	1	4	6	7	complete
189	1	2	3	0	0	1	1	1	1	1	0	2	2	3	6	1	1	2	1	7	4	3	complete
187	1	4	5	1	1	1	1	1	1	1	0	1	2	5	6	1	1	2	1	7	6	7	complete
185	0	1	20	1	1	1	1	1	1	2	1	2	2	3	4	1	1	2	2	4	4	2	complete
181	1	2	4	1	1	1	1	1	0	3		2		2	6	1	1	2	1	5	5	7	complete
179	1	2	5	1	1	1	1	1	1	2	1	2	2	6	6	1	1	2	1	7	5	5	complete
174																							incomplet
173	1	2	8	1	1	1	1	1	1	2	0	1	2	5	6	1	1	2	1	4	6	5	complete
172	1	2	19	1	0	1	1	3	1	3				5	6	1	1	1	2	6	6	4	complete
168	0	3	20	0	0	3	3	3	1	2	0	1	1	1	6	1	1	2	1	1	7	5	complete
167	0	1	1	0	1	1	1	3	1	2	1	1	2	4	6	1	1	2	1	5	7	6	complete
165																							incomplet
164	1	1	1	1	1	1	1	1	1	3				2	5	1	1	2	1	4	4	3	complete
162	1	2	21	1	1	1	1	1	1	3				4	6	1	1	2	1	3	6	6	incomplet
161	0	2	20	1	1	1	1	3	0	2	1	1	2	2	6	0	1	1	1	7	3	5	complete

#	HF1_parents_degree	HF2_parents_job	HF3_country	HF4_family_instrument	HF5_parents_lessons	HF7_choice_music	HF8_choice_instrument	HF9_choice_method	HS3_friends_instrument	HU1_sorting	HU2_theory	HU3_creativity_technicality	HU4_notation_ear	HV1_notation	HV2_ear	HV3_notation_aided	HV4_ear_aided	HV5_covers_originals	HV6_creative_session	HV7_prof_notation	HV8_prof_ear	HV9_prof_improv	Status
156	1	2	9	0	0	3	3	1	1	2	0	1	1	4	6	1	1	2	1	6	6	6	complete
155	0	1	1	0	0	1	1	3	0	3				3	6	1	1	1	1	5	7	7	complete
152	1	1	18	1	0	3	3	3	0	1	1	2	1	2	6	1	1	1	2	6	3	5	complete
146	1	2	1	1	1	1	1	1	0	2	1	2	2	5	5	1	1	1	1	7	5	7	complete
145	0	4	20	0	0	1	1	3	1	2	1	2	1	4	6	1	1	2	1	6	7	6	complete
142	0	3	15	1	0	3	3	3	1	3				1	6	1	1	2	1	1	7	7	complete
141	0	4	15	1	1	3	1	3	1	2	1	2	1	3	6	1	1	1	2	3	7	5	complete
139	0	4	15	1	0	3	3	3	0	2	1	2	2	4	4	1	1	1	2	5	5	4	complete
136	1	2	15	0	0	1	1	3	1	1	1	2	2	6	6	1	1	2	1	3	6	4	complete
134	1	4	15	0	0	1	1	3	1	1	1	1	1	6	6	1	1	2	1	2	5	1	complete
133	0	4	15	0	0	3	3	3	0	1	1	1	1	3	3	0	0	1	2	3	3	1	complete
132	1	4	15	1	1	1	1	1	0	1	1	1	1	6	6	1	1	1	1	4	5	5	complete
131	0	2	15	0	0	3	3	3	1	1	1	1	1	5	6	1	1	1	1	5	5	1	complete
130	1	2	15	0	0	1	3	3	1	1	1	2	1	4	6	1	1	2	1	3	5	3	complete
129	0	4	15	1	0	3	2	3	0	1	1	1	2	4	5	1	1	1	1	5	5	3	complete
127	0	4	15	0	0	2	2	3	1	1	1	2	2	5	5	1	1	1	2	5	4	3	complete
126	0	2	15	1	0	1	1	3	1	1	1	2	1	5	6	1	1	2	2	3	5	6	complete
125	0	2	15	1	1	1	3	1	1	1	1	2	2	1	6	1	1	2	1	1	7	7	complete
124	1	4	15	1	0	1	1	1	1	1	1	1	1	4	6	1	1	2	1	5	4	2	complete
123	0	3	15	0	0	1	1	3	1	1	1	2	2	4	6	1	1	2	1	4	6	4	complete
122	0	2	15	1	0	1	1	3	0	1	1	1	1	6	6	1	1	1	2	5	3	2	complete
120	1	1	15	0	0	1	1	3	1	1	1	2	2	6	6	1	1	1	1	2	7	4	complete
119	0	4	15	1	0	1	1	3	1	1	0	1	1	6	6	1	1	2	1	4	5	3	complete
118	1	2	15	1	0	3	1	3	1	1	1	2	1	3	5	1	1	2	1	3	5	3	complete
117	1	2	15	0	1	1	1	1	1	1	1	2	1	5	6	1	1	2	1	3	6	4	complete
116	1	2	15	1	1	1	1	3	1	1	1	2	1	5	5	1	1	2	1	5	3	3	complete
115	0	4	12	0	0	1	1	3	1	1	1	1	1	5	6	1	1	2	1	5	5	1	complete
114	1	2	15	1	1	1	1	3	1	1	1	2	2	2	5	1	1	2	1	4	5	5	complete
113	1	2	15	1	1	1	1	3	1	1	1	1	2	5	5	1	1	2	1	5	5	3	complete
112	1	2	15	1	1	1	1	3	1	1	1	1	1	5	5	1	1	2	2	5	4	3	complete
111	1	2	15	1	1	1	3	3	0	1	1	2	1	6	6	1	1	2	1	3	7	2	complete
110	0	2	15	1	0	1	1	1	1	1	1	2	2	6	6	0	1	1	1	4	7	7	complete
109	1	2	15	0	0	1	1	1	1	1	1	1	1	4	5	1	1	2	1	5	5	4	complete
107	1	4	15	0	0	1	1	1	1	1	1	1	1	6	6	1	1	1	2	7	4	4	complete
106	0	5	15	1	1	2	1	1	1	1	1	1	1	5	5	1	1	2	1	5	6	5	complete
105	1	2	15	1	1	1	1	3	0	1	1	2	2	4	6	1	1	2	2	5	7	6	complete
104	1	2	15	1	1	1	1	1	0	1	1	2	1	5	6	0	1	2	1	4	3	4	complete
103	1	2	15	0	0	3	1	3	1	1	1	2	2	6	6	1	1	1	1	3	6	4	complete
102	0	4	15	0	0	1	1	1	1	1	1	1	1	4	4	1	1	1	1	6	4	4	complete
101	1	2	16	1	1	1	1	1	1	1	1	2	2	6	6	1	1						incomplet

#	HF1_parents_degree	HF2_parents_job	HF3_country	HF4_family_instrument	HF5_parents_lessons	HF7_choice_music	HF8_choice_instrument	HF9_choice_method	HS3_friends_instrument	HU1_sorting	HU2_theory	HU3_creativity_technicality	HU4_notation_ear	HV1_notation	HV2_ear	HV3_notation_aided	HV4_ear_aided	HV5_covers_originals	HV6_creative_session	HV7_prof_notation	HV8_prof_ear	HV9_prof_impov	Status
100	0	4	15	1	0	2	2	3	0	1	1	1	1	5	6	1	1	1	1	4	5	2	complete
99	1	4	15	1	0	1	1	1	0	1	1	2	1	6	6	1	1	1	1	6	6	5	complete
98	1	4	15	0	0	1	1	1	1	1	1	1	1	6	6	1	1	1	2	6	6	6	complete
97	0	3	15	0	0	1	1	3	1	1	1	1	1	5	5	1	1	1	2	6	5	2	complete
96	1	2	15	1	1	1	1	3	0	1	1	2	1	3	6	1	1	1	2	5	4	3	complete
95	1	4	15	1	0	2	3	3	1	1	1	2	1	6	6	1	1	2	2	7	5	3	complete
94	1	4	15	0	0	1	1	1	0	1	0	2	2	5	2	1	0	1	1	6	1	3	complete
93	0	4	15	0	0	1	1	1	1	1	1	1	1	3	5	1	1	1	1	4	4	4	complete
92	0	1	15	0	0	1	1	1	1	1	1	2	2	3	5	1	1	2	1	4	6	4	complete
91	1	2	15	0	0	2	3	3	1	1	1	1	2	6	6	1	1	2	2	5	3	3	complete
90	1	2	15	0	0	1	1	1	1	1	1	1	1	5	6	1	1	1	1	5	6	3	complete
89	1	2	15	1	1	1	1	1	1	1	1	2	2	4	6	1	1	2	1	7	7	7	complete
88	0	2	15	1	0	3	3	3	1	1	1	2	2	5	5	1	1	2	2	5	3	2	complete
87	0	2	5	1	1	1	1	3	1	1	1	2	2	2	6	1	1	1	1	6	4	4	complete
86	0	2	15	0	0	1	1	3	1	2	1	2	2	5	5	1	1	1	2	5	5	3	complete
85	1	2	4	1	1	1	1	1	1	2	1	1	1	3	6	1	1	2	1	4	6	7	complete
84	0	4	15	0	0	1	1	1	1	2	1	1	2	5	5	1	1	1	1	7	5	4	complete
83	1	2	15	1	0	1	1	3	0	2	1	2	2	6	6	1	1	1	2	5	5	4	complete
82	1	1	15	1	0	1	1	1	1	2	1	1	1	5	6	0	0	2	1	5	6	6	complete
81	0	4	15	0	0	1	1	1	1	2	1	2	2	4	6	1	1	1	2	4	6	6	complete
80	1	2	15	1	0	1	1	1	1	1	1	2	2	6	6	1	1	2	1	6	4	3	complete
78	0	2	15	1	1	1	3	3	1	2	1	1	1	5	6	1	1	2	1	4	4	4	complete
77	0	1	15	0	0	1	3	3	1	3				4	6	1	1	2	1	6	6	6	complete
76	0	2	15	1	0	1	1	3	1	2	1	1	1	6	6	1	1	1	1	7	7	7	complete
75	0	4	15	0	1	1	1	3	1	2	1	2	2	6	6	1	1	1	2	6	5	5	complete
74	0	1	15	1	0	1	2	3	1	2	1	2	1	4	6	1	1	2	2	5	7	3	complete
73	1	1	15	0	0	1	1	1	1	2	1	1	2	5	5	1	1	1	1	6	5	5	complete
70	0	3	15	1	0	1	1	1	1	3				4	4	1	1	1	2	5	4	5	complete
69	0	2	15	0	0	1	1	1	1	2	1	2	1	6	6	1	1	2	1	3	5	5	complete
68	1	1	15	0	0	2	3	3	1	1	1	1	1	6	6	1	1	2	1	6	6	7	complete
66	1	4	14	0	0	1	1	2	1	2	0	2	2	4	6	1	1	2	1	6	6	6	complete
65	0	4	15	1	0	1	1	3	1	2	1	1	1	6	6	1	1	2	1	7	7	5	complete
63	1	2	15	1	0	1	3	1	1	2	1	1	1	5	6	1	1	2	2	5	6	4	complete
62	1	2	15	0	0	1	3	3	0	2	1	2	2	4	5	1	1	1	1	7	4	2	complete
61	1	2	15	1	1	1	1	1	1	3				5	6	1	1	1	2	3	7	4	complete
60	1	2	15	1	0	3	1	1	0	2	1	1	1	5	6	1	1	2	2	6	3	2	complete
59	1	4	15	1	1	1	1	3	0	2	1	1	1	4	6	1	1	1	1	2	6	5	complete
58	0	3	15	0	0	1	1	3	1	3				3	5	0	1	1	2	2	6	4	complete
57	1	2	15	0	0	1	1	1	0	1	1	2	2	5	6	1	1	2	1	3	6	7	complete
51	1	4	15	1	1	1	1	3	1	2	1	2	1	5	6	1	1	1	1	7	6	4	complete

#	HF1_parents_degree	HF2_parents_job	HF3_country	HF4_family_instrument	HF5_parents_lessons	HF7_choice_music	HF8_choice_instrument	HF9_choice_method	HS3_friends_instrument	HU1_sorting	HU2_theory	HU3_creativity_technicality	HU4_notation_ear	HV1_notation	HV2_ear	HV3_notation_aided	HV4_ear_aided	HV5_covers_originals	HV6_creative_session	HV7_prof_notation	HV8_prof_ear	HV9_prof_improv	Status
49	0	3	15	0	0	1	1	3	1	1	0	2	1	5	5	1	1	1	2	6	2	4	complete
47	0	2	15	1	1	1	1	1	1	2	1	1	1	4	6	1	1	1	1	2	4	2	complete
45	1	2	15	1	0	1	1	3	1	2	0	1	1	5	6	1	1	2	1	4	6	6	complete
44	0	3	15	1	0	1	1	1	1	2	0	1	1	3	5	1	1	1	2	5	4	3	complete
43	0	2	15	1	1	1	1	3	1	2	1	1	1	6	6	1	1	1	2	6	6	4	complete
42	1	2	15	1	0	3	3	3	1	3				2	5	0	1	2	1	3	7	7	complete
41	1	2	15	1	0	1	1	3	1	2	1	2	2	6	5	1	1	1	1	3	6	4	complete
40	1	2	15	1	1	1	1	1	0	2	1	1	1	1	6	1	1	1	2	1	5	4	complete
38	1	4	15	0	1	1	1	1	1	2	1	2	1	6	6	1	1	1	2	5	6	1	complete
34	0	2	15	1	0	3	1	3	1	2	1	2	2	4	6	1	1	2	1	4	7	4	complete
28	0	2	15	0	0	1	1	3	1	2	1	1	1	4	6	1	1	2	1	4	6	5	complete
27	0	4	15	1	1	2	3	3	1	2	1	2	2	6	6	1	1	1	2	4	6	4	complete
26	1	2	15	1	1	1	1	3	1	2	1	1	1	4	5	1	1	1	1	6	4	3	complete

Sample of Survey Data Coding Sheet

	HF1_parents_degree	HF2_parents_job	HF3_country	HF4_family_instrument	HF5_parents_lessons	HF7_choice_music	HF8_choice_instrument	HF9_choice_method	HS3_friends_instrument	HU1_sorting	HU2_theory	HU3_creativity_technicality	HU4_notation_ear	HV1_notation	HV2_ear	HV3_notation_aided	HV4_ear_aided	HV5_covers_originals	HV6_creative_session	HV7_proficientation	HV8_proficer	HV9_proficprov
0	No			No	No	Yes	Yes	Yes	No		No			Not important at all	Not important at all	Hindered	Hindered					
1	Yes	Trades (Plumber,	Australia	Yes	Yes				Yes	I am currently pursuing a	Yes	Creativity	Ear-playing abilities	Very important	Very important	Aided	Aided	Covers	Creative artist	Not very proficient	Not very proficient	Not very proficient
2		Professions (Doctor,	Austria			No	No	No	Yes	I have graduated with a	.	Technicality	Notational skills					Originals	Session musician	Very proficient	Very proficient	Very proficient
3		Unskilled (Clerk, cleaner,	Bosnia Hercegovina			They had no comment	They had no comment	They had no comment		I did not study popular music at	.											
4		Businessman (owns a business)	Canada																			
5		Musicians	China																			
6			Estonia																			
7			France																			
8			Germany																			
9			Greece																			
10			Hungary																			
11			India																			
12			Indonesia																			
13			Italy																			
14			Korea (South)																			
15			Malaysia																			
16			Netherlands																			
17			Poland																			
18			Singapore																			
19			Sweden																			
20			United Kingdom																			
21			United States Of America																			

Sample of Interview Transcripts

Haley

Back then I started piano lessons because i saw my friends play and it looks cool, so i wanted to learn as well.

24. Could you elaborate what kind of popular music were you and your friends listening to before you went to uni? (01:51:40)

Mando pop mainly from Taiwan

University

25. You indicated that your uni does not have a heavy usage of music theory, could you elaborate your reason for this assessment?

Based on all my major classes its like that, even when we learn theory it is just something separated, its not linked to the playing. I'm not sure about other instruments, but for drums its like that.

I think aural (class) is connected to theory, and the counting is very important which is part of the theory, but our aural training doesn't train us a lot on that i think metric modulation is very important in drumming but we didn't get to be exposed to that in our uni time.

Administrator: your uni does teach theory and aural but the reason why you feel there's not enough emphasis is because you dont see how it connects.

Respondent: i think this is not just my uni, its the Malaysian music education system, they just do it as separated thing just for the exam instead of connecting it to the piece you play. They don't get you to put it together.

26. Do you think there should be more emphasis on the understanding of music theory? (01:54:52)

Ya, i think it will bring everyone to the next level. At first it will be very hard for everyone, cause from very subconscious suddenly you need to be conscious you will feel restricted and then maybe they will give up and they feel 'eh because of this i cannot play leh, but actually i can play without this so why do i want to do this?' But actually if they can do that they will bring them to the other level, but this depends on the person lah, how much they want and the influence around him.

27. You indicated that your uni placed more emphasis on technicality, could you elaborate your reason for this assessment? (01:55:38)

I feel that sometimes there's things in my mind that i cannot play fluently on the drums, like there's a sound i hear, but i cannot play it right away. And speed is also something i struggle with, like when the piece is very fast.

7. Could you give me some details about your classical music training?
    1. What kind of training?
    2. How long/duration?
    3. Was there an overlap with your PM learning?

8. **Your answers in the survey suggests that you had formal training against your wishes (not own choice + parents) but at the same time it was the only method of music that you were aware of. (01:06:10)**

But I wasn't really against it lah, they just put me into it, then i find it interesting then i just learn loh. Most of the courses that they put me in at first i dont know at all about it, like Malay also, they put me in, then i find it very hard, then i tell them, then they say ok lah withdraw. So its more like they give me the opportunity, give me the experience first, if i like it continue, if i dont like it then stop.

9. **Did you have formal lessons on pop music? Or was it all done on your own? (01:07:16)**

Had lessons. At first i play myself, then there's always this period of time after exam when you dont know whether you pass or not (don't know whether to proceed to the next grade), so that time my teacher will give me some pop songs to play loh and also guide me.

10. **How did your teacher teach those pop songs? (01:07:40)**

Demonstrate and then ask me to read from notation.

11. **You mentioned you were not taught to play by ear. (01:07:54)**

Actually the electone course there is one part that got ear exam (play back what you hear) but I wasn't really good at it, cause I wasn't taught to do it.

12. **Did you enjoy your formal training experience? (01:08:36)**

Electone - at first I didn't like it a lot because the teacher was very fierce, but then my mum told the teacher to let me do what i want in class, as long i learn little bit of things its ok, dont scold me or whatever cause that will only make me hate the instrument, so yeah i kinda did what I want lah that time.

Administrator summary: so basically had electone and classical piano lessons, and while you were waiting for exam results that's when your teacher taught you some pop songs from notation.Other than that, you learn popular music on your own by buying books and learning from notation.

13. **Was that how it was until you entered UCSI? (01:09:44)**

Yeah, I think started from the age of 10, that's how it was.

Sarah

1. **Could you tell me the story about how it started? From the moment you 'met' the piano/ keys or knew you wanted to learn to play the piano/keys till where you've arrived at today. (01:01:48)**

I remember very distinctively i was brought up in Hong Kong in my very early childhood, around 2-4 years old maybe. I remember i was 3 when my dad used to play the guitar at home but for fun, and then he bought this toy keyboard for me and it has like beats and stuff and you can change sounds, and i was really interested with that side rather than the pitch and things like that. But then i started to copy sound that i hear, like i remember very distinctively it was batman first cause it played on TV, and it was like 'BATMAN', and i like play on the piano and copy them and then from then whatever songs i learn in nursery, like twinkle twinkle little star I will try to sing it and play it on the toy keyboard, things like that. So that was probably around 3 years old, those kind of music you can poke around and find, yeah but i wasn't like perfect pitch, I had to poke around but i would sort of get it quite quickly, i remember, so yeah that was my early childhood. And then my dad loves music, so he would want me to like music and he was happy that i was, so he brought me to a..,it wasn't a serious lesson it was more of like an introduction to music kind of lesson, maybe i was a bit older, like 3.5 or 4 years old, maybe 4 lah, somewhere around there, we were still in HK at that time. And we would sing nursery rhymes and then not really learn the piano, but would learn about notes, i think. It was for a short while and then we had to move back here. And then i was still playing on the toy piano when we got back, but then my dad bought a clavinova and then like wanted me to seriously start music lessons, and then we ended up at Yamaha and the teacher i was with was really dedicated, she was very strict, but she knows how to develop your foundation, so we would have group lessons and then she would come to my house for ABRSM lessons. This was around 7 maybe. And then you know how JMC teaches us is supposed to be really fun, the early years were fun, singing and then i would love the hearing, we did hearing test actually now that I think about it. She would play a note and whoever can answer what that note is first would sort of like get a compliment (YEAY), you know we would encourage each other lah and we learn solfage, so that really helped me recognise the notes that i learn. But we don;t do DO DI (chromatic), we only did DO RE (major), so just C major scale, fixed DO. So that's why i think when i was in college I realised i do have some difficulty recognising the # (sharps), especially when it is very close, like sometimes its actually a D# but i will hear it as a D, something like that. Then from JMC, i took ABRSM , then changed teacher halfway, maybe when i was 10, and each time I changed teachers, the way I learn music changes, but i still stuck with Yamaha until i was 18. Then after that i went to uni. Actually even at uni i was still taking Yamaha lessons, because Yamaha you have grades, it goes down, 9, 8, 7, and then i was taking grade 4 actually, they have to parts, fundamental and practical and fundamental at this point exams have been really tough to pass, because to pass you have to get 75/100, to pass...so it was tough and i failed once and then i did it again and i passed my fundamental but there was something wrong with registration with my practical so i never took it. Yeah so that didn't happen for me, i finished

I think that this is good but also the notation skills is more of the students own individual responsibility to learn it on the side even if its not required in class because lets say your hearing is not that good, then what's the back up of hearing, its notation. Those who can play by ear will write the notation out for you so if you cant even read then we cant help you.

Views and Attitudes

59. You indicated 6/6 for the importance of both notation knowledge and ear-playing skills, could you elaborate your reason for this assessment? (02:09:06)

Lets say you go for a gig and last minute they want to change song like 'this is the song i want you to play' then you gotta read right...or if lets say one guy is playing a different key but he doesn't know it, so you got to adapt loh, play by ear. Yeah that's what i thought when i rated that

60. Could you elaborate how notational skills and ear-playing skills aided the development of your performing abilities? (02:10:14)

Lets say if I'm trying to learn notation, then the hearing part would help, it will be like 'oh s this sounds like that' then i guess. I would learn it in that way or if...i guess for both of them the more you do it the better your get at it. So if i was working on this, then the more i did it, like the first song i learned by ear took a few weeks, but slowly i could do it in like days, then like a few hours. And for notation also, the more i read, the faster i got.

Administrator: The better you got at both skills, the better you were at learning new songs

61. Could you think of any way either notation or ear-playing skills have hindered your development? (01:11:42)

No

62. How about your formal training prior to what you experience in uni? do you think that has hindered or helped you with your continuing develop emend as a musician? (02:12:04)

I think it sort of helped, i mean it was classical, then it would be kind of a hinder because its an entirely different approach so to be more classical would be less pop, cause I'm not good enough to do both at the same time. So if its like something simple like 4 chord pop song then that's out of the questions lah, but if its like trying to learn jazz, i tried actually, cause i had to accompany a classical friend of mine, so i was like jazzing for like 2 years and then suddenly I'm asked to play classical then i started swinging the quavers, then i was like 'woow', its a bit on either side it will be a hindrance lah like switching from side to side.

to work on my own style and my open approach. But at the same time cause Fly and Rohzan has been trying to teach me, fly especially, he's a born teacher he like to teach people so he tried to teach me how to read music and I just couldn't. But after that I can appreciate the importance of learning music, to be able to sight read and things like that. But i also realise that...i know you learn music right, you studied music...sorry to say this but this is my personal opinion, its like i go to Bangkok jazz, I close my eyes, I have no idea who is playing, they all sound the same, they are good they are great, they can do all the solos and things like that but when i close my eyes i dont know who's playing. So i realised that I dont want to be that, Ihave that urge to be known, so that's why it decided i dont want to take that route, cause i'll just end up being like everybody else, so then i found out that Hendrix, Clapton and all those they dont really know how to play music, so that was my reference basically.

10. His comment on formal training. (01:38:26)

From my experience, its ok that all these training that you guys go through, if you want to be a session it's its perfect, but if you want to be a performer and express your own music, that may be a hinder, cause your outlook or how you approach music is the same as everyone else, so its really going to be doubly tough to find your own voice. And i think, i dont want to mention names, but there are some people whom players who I really respected and i really still do respect their playing but they are unable to come up with their own music, they can play others peoples music note by note, play all the crazy stuff, but when it comes to their own expression they have problems and I find it sad cause i really look up to them, their skills and knowledge and things like that. But somehow their approach always get hindered because of that, because of the formal training and that scares me also, cause my uncle my dad have been forcing their children to take the certificate, but i told them Ive all these people i respected them but, and i see what happen to them. And there's another bassist, i wont mention names, he was one of the craziest bassist i know, doing flamenco on the bass, it was really really out there, then he went to berklee and he came back and he was just playing single note and I was like oh god why what happened? And what he said was right in a way, but for me i felt wasted, he said while he was in berklee he realised that education is not really the learning in berklee, the education is being there because everyone can play music, even the waiter is twice, three times better than you, that kind of environment, and he was humbled by that. So in a way its good so it kind of like honed his skill to be a bassist's bassist, so proper bassist, you know you're supposed to do your job, and as a bassist you have a certain rule to play, so just do it, its a job. But for me, i mean like for people that wants to do that as a job then yeah they should do it, but then when i saw him, what he had before he went to berklee and i felt it was such a waste, that fire, that screw you all look at what i can do. And i felt like its so wasted cause if anyone can. Really be out there and show off it was him. So that kind of like got me sad and scared to see all these people go to proper formal training and what they lost, they gained, they can make a living, they can be a sessionist, but that extra umph, that X factor they lost it.

11. Back when you were 10 and you knew you wanted to sing, did it occur to you to go for lessons to learn how to sing properly, or did you just think you could do this on your own? (01:13:02)

Yeah, cause the bands i look up to, its usually what they do. So it wasn't a conscious decision

12. So how about people around you, were there anyone learning the same way you did? Or were you like really going against the grain? (01:13:53)

Not many, but i think there were, they would play the 4 chord pop songs, but i wasn't really friends with them, bu I knew that that's what they did. My friends don't usually play music, maybe the occasional singer, from the orchestra. But there was this one guy, a guitarist, really into music, and I'm close with him. He sang too mostly, and when he saw me making covers we made a band and made some stuffs.

13. Your guitar and piano lessons, was it your own choice or did your parents encouraged you to go for them? (01:15:30)

At first i wanted to go, but then it got to a point where they would force me to practice then I didn't enjoy it anymore, and i told them i wanted to quit. Even the voice lessons at 17 was my own decision.

14. Why did you decided to go for voice lessons at 17? When you were singing for many years without it? (01:16:22)

Because up until that point the bands i listened to, the vocal techniques were like anything, but i recently discovered muse and every performance they had live was very consistent, so that's what i wanted to go for, consistency and very good technique, and i felt that i needed some training. There was something that i specifically wanted to learn which was the belt, long high notes.

15. Did you enjoy your classical lessons? (01:17:12)

Yeah I didn't, but i liked the classical voice training, cause i wanted to learn a specific thing, and the lessons lasted 6 months, but it ended cause i went to college in Taiwan, and also the teacher was classically trained, and in the end our lessons would turn into like i would play a song, a contemporary song, and she would help me on it, but she didn't really know the songs, so i felt like this is not very optimal, that this teacher could no longer teach what i wanted. cause i couldn't grasp what she taught, so i just kept not getting it and eventually i stopped cause i felt that I couldn't learn anymore. But then for 2 years i kept learning myself, keeping in mind what my teacher taught me, then i learn by myself actually.

16. Did you continue singing or learning to sing in Taiwan? (01:19:28)

At the time there was also a specific thing I wanted to learn but no one had it, which was adding distortion to your vocals***demonstrate***(rock growling singing style)

Chinese lah

49. Do any of your family members play an instrument? If yes, what instrument/music did they play? (01:40:50)

My dad played guitar, my mum played piano, sister played piano and violin, but my brother don't have, but when i ask him to play something he can, whether its drums or piano. My mum used to play classical music, but after that because she served in the church, so church music. My dad i think he learnt to play in the church, so the music he play is more pop-oriented. My sister is classically trained for piano and violin. And my brother plays whatever.

50. Did any one of your parents have music lessons before? (01:42:16)

Mum had classical training

51. Do you recall hearing music around the house as you were growing up? If yes, what kind of music was it? (01:42:20)

If playing, then its classical, theres church music also, but mainly classical music. If radio then its pop. My dad loves to listen to the Beatles, ABBA, Elvis and doo wop groups. My mum likes symphony type music, classical music. I also heard a lot of pop classical music such as those by Richard clayderman.

52. What did your family think about your choice of music. instrument and learning process? (01:45:24)

No opinions, supportive

Wider community (Before university)

53. Did you experience music listening/making in school? If yes, what kinds of music and instruments did you come in contact with? (01:45:50)

In primary school got, but not secondary school. I cant remember what kind of music, maybe like world famous catchy tune, but i remember its the recorder. Music-making not so much in school, but mainly in church

54. Can you describe how you were taught to play music in the classroom? (01:47:22)

Numbering system, then we just follow the numbers and play the recorder. Eh wait, i think theres notation, cause i remember theres F G A B C, so he/she got write notes, oh but its Roman numerals, not music notation.

55. What kinds of music did your friends listen to? (01:48:30)

Mainly English songs on the radio, Jason Derulo, pit bull, these type of pop songs, anything you can hear on the radio. These are friends outside church, church friends mainly introduce me to

8. Can you describe the process of learning a song (01:10:46)

Now - What i usually do first is to listen to the song from beginning till the end and i find the part that i cant play. For example the groove 'oh this one can play', can just play by ear, then theres one part that need to practice it, theres one break down, one fill in i need to break down, so for me i use a looper, then i cut that, and i just keep looping it first, and when i still cannot get it i try to find the score or i try to transcribe it.

Back then - I just listen to the song repeatedly. Even if there's something that i cant play i just keep listening to it until i get it, cause i feel like i train myself to listen to it. First, and i keep listening to it and eventually i can get it already.

9. How would you know if you are playing it correctly? (01:12:04)

The sound i think, the rhythm, cause its like i try to compare also, the full ins that i did and the one the guy did. And if i really cannot get it, then i wont do the fill ins, i'll do. My own fill ins that is almost like the original fill ins. Example is like ...vocalise drum fill ins (bat country)....so its like i cannot do the lick and i dont know how ton practice double pedal also that time, the only thing i know is that double pedal looks so cool can do faster sound and everything, but i cannot do that, so what i do is, i do on the snare and the thing that I'm supposed to do on the bass drum, i do on the floor tom. So ...vocalise drum fill ins...yeap

10. Started with ear then notation - where in that process did you use notation? (01:13:14)

wait 7-16 years old - i never use notation at all; i think there is, but not proper notation, its like the notation i made myself. So i hear and then i write it in a way that I understand what it is supposed to sound like. The way i write it is I use lines, so the small lines i use toms then the big lines i know is the accent.

11. You indicated that there was a lot of self-experimentation. Can you give me an example? Can refer tot he fill in example - how did you know to play the substitute the floor tom for the bass? (01:14:46)

Cause the sound is deep, although not as deep as the bass drum, but that is the deepest sound i can find. Cause i tried other toms, and it doesn't sound good.

12. Why start writing your own notation? (01:15:48)

So i can remember it mah, and to refer to it lah if i forgot, then after a while i dont need that anymore already, its like i remember.

13. Instructional tutorials/videos - did you follow a course chronologically or used it like some sort of Encyclopaedia? (01:16:12)

Music Test Results

Assessment Criteria (Haley)

Sight Reading	1	2	Total	Avg	Notes
Notation/pitch	2	3	5	2.5	-missed a few bars
Rhythm	3	3	6	3	
Sync (with track)	3	3	6	3	
Musicality	2	2	4	2	
Total (40 points)			21	10.5	
			53%		

Call & Response (improvisation)	1	2	Total	Avg	Notes
Rhythm	4	4	8	4	
Sync (with track)	4	4	8	4	
Musicality	2	2	4	2	
Creativity	2	2	4	2	
Improvisation	2	2	4	2	
Total (50 points)			28	14	
			56%		

Prepared Performance	Total		Notes
Rhythm	4		-simplistic drum beats and patterns -lack connection in her playing
Sync (with track)	4		-solo sounds written and prepared -funk
Musicality	3		
Style	3		
Communication	3		
Total (25 points)	17		
	68%		

Play by Ear	1	2	Total	Avg	Notes
Notation/pitch	3	2	5	2.5	-will play a simplified version
Rhythm/pulse	3	2	5	2.5	
Sync (with track)	4	5	9	4.5	
Musicality	2	2	4	2	
Total (40 points)			23	11.5	
			58%		

Backing Accompaniment (Improvisation)	1	2	Total	Avg	Notes
Rhythm	4	3	7	3.5	**Generally** -Gave off a non-confident vibe -Little attention given to tone
Sync (with track)	4	2	6	3	
Musicality	3	2	5	2.5	
Creativity	1	2	3	1.5	
Improvisation	3	2	5	2.5	
Total (50 points)			26	13	
			52%		

Assessment Criteria (Yasmin)

Sight Reading	1	2	Total	Avg	Notes
Notation/pitch	2	2	4	2	-struggled with the tempo of the 1st one
Rhythm	2	2	4	2	
Sync (with track)	2	2	4	2	
Musicality	1	3	4	2	
Total (40 points)			16	8	
			40%		

Play by Ear	1	2	Total	Avg	Notes
Notation/pitch	3	3	6	3	-would not attempt between playback (move fingers above the keys) -remembers the rhythm well
Rhythm	3	4	7	3.5	
Sync (with track)	3	3	6	3	
Musicality	2	3	5	2.5	
Total (40 points)			24	12	
			60%		

Call & Response (Improvisation)	1	2	Total	Avg	Notes
Pitch	4	4	8	4	-safe attempts (unadventurous) -mostly stayed within chord tones -rhythmically simple as well
Rhythm	4	3	7	3.5	
Sync (with track)	5	4	9	4.5	
Musicality	3	3	6	3	
Creativity	2	3	5	2.5	
Improvisation	2	3	5	2.5	
Total (60 points)			40	20	
			67%		

Opening Phrase (Improvisation)	1	2	Total	Avg	Notes
Pitch	4	4	8	4	
Rhythm	4	4	8	4	
Sync (with track)	4	4	8	4	
Musicality	3	4	7	3.5	
Creativity	3	4	7	3.5	
Improvisation	3	5	8	4	
Total (60 points)			46	23	
			77%		

Prepared Performance	Total		Notes
Pitch	5		Hiromi-sounding song
Rhythm	3		
Sync (with track)	3		
Musicality	4		
Style	4		
Communication	4		
Total (30 points)	18		
	60%		

Assessment Criteria (Sarah)

Sight Reading	1	2	Total	Avg	Notes
Notation/pitch	3	4	7	3.5	
Rhythm	3	4	7	3.5	
Sync (with track)	3	4	7	3.5	
Musicality	3	3	6	3	
Total (40 points)			27	10	
			68%		

Play by Ear	1	2	Total	Avg	Notes
Notation/pitch	4	4	8	4	
Rhythm	5	4	9	4.5	
Sync (with track)	4	4	8	4	
Musicality	4	3	7	3.5	
Total (40 points)			32	16	
			80%		

Call & Response (Improvisation)	1	2	Total	Avg	Notes
Pitch	5	5	10	5	-drew inspiration from given phrase
Rhythm	5	5	10	5	
Sync (with track)	5	5	10	5	
Musicality	4	5	9	4.5	
Creativity	2	5	7	3.5	
Improvisation	4	5	9	4.5	
Total (60 points)			55	27.5	
			92%		

Backing Accompaniment (Improvisation)	1	2	Total	Avg	Notes
Pitch	5	5	10	5	
Rhythm	5	5	10	5	
Sync (with track)	5	5	10	5	
Musicality	5	5	10	5	
Creativity	4	4	8	4	
Improvisation	4	4	8	4	
Total (60 points)			56	28	
			93%		

Prepared Performance	Total		Notes
Pitch	5		-progressive rock/metal
Rhythm	5		
Sync (with track)	5		
Musicality	5		
Style	5		
Communication	5		
Total (30 points)	30		
	100%		

Assessment Criteria (Ellie)

Sight Reading	1	2	Total	Avg	Notes
Notation/pitch	2	3	5	2.5	-struggled with running notes -doesn't attempt during playback (I and I-F would attempt between playbacks) -2nd - could feel the pulse but struggling to play both the pitch and rhythm right at the same time
Rhythm	2	4	6	3	
Sync (with track)	3	3	6	3	
Musicality	2	3	5	2.5	
Total (40 points)			22	8.5	
			55%		

Play by Ear	1	2	Total	Avg	Notes
Notation/pitch	4	4	8	4	
Rhythm	4	4	8	4	-will attempt between playbacks
Sync (with track)	4	4	8	4	
Musicality	3	3	6	3	
Total (40 points)			30	11	
			75%		

Call & Response (Improvisation)	1	2	Total	Avg	Notes
Pitch	5	5	10	5	-drew inspiration from the given phrases
Rhythm	5	5	10	5	
Sync (with track)	5	5	10	5	
Musicality	5	5	10	5	
Creativity	4	4	8	4	
Improvisation	4	4	8	4	
Total (60 points)			56	28	
			93%		

Backing Accompaniment (Improvisation)	1	2	Total	Avg	Notes
Pitch	5	4	9	4.5	
Rhythm	4	4	8	4	
Sync (with track)	4	4	8	4	
Musicality	4	4	8	4	
Creativity	4	4	8	4	
Improvisation	3	3	6	3	
Total (60 points)			47	23.5	
			78%		

Prepared Performance	Total		Notes
Pitch	5		-solo performance -she controlled the pulse
Rhythm	5		
Sync (with track)	5		
Musicality	3		
Style	4		
Communication	5		
Total (30 points)	27		
	90%		

Assessment Criteria (Zayne)

Sight Reading	1	2	Total	Avg	Notes
Notation/pitch	1	1	2	1	-did not bother to read the notes -just improvised a line based on the backing track -even if he can't get it, he would play something
Rhythm	1	1	2	1	
Sync (with track)	4	3	7	3.5	
Musicality	3	2	5	2.5	
Total (40 points)			16	8	
			40%		

Play by Ear	1	2	Total	Avg	Notes
Notation/pitch	2	2	4	2	-remembers beginning of phrases -got lost halfway through the second one -noted he doesn't do well with exams
Rhythm	4	3	7	3.5	
Sync (with track)	4	4	8	4	
Musicality	4	3	7	3.5	
Total (40 points)			26	13	
			65%		

Call & Response (Improvisation)	1	2	Total	Avg	Notes
Pitch	5	4	9	4.5	-will ask for time to learn chords first before listening to track
Rhythm	5	5	10	5	
Sync (with track)	5	5	10	5	
Musicality	5	4	9	4.5	
Creativity	5	3	8	4	
Improvisation	5	4	9	4.5	
Total (60 points)			55	27.5	
			92%		

Backing Accompaniment (Improvisation)	1	2	Total	Avg	Notes
Pitch	4	5	9	4.5	
Rhythm	4	5	9	4.5	
Sync (with track)	4	5	9	4.5	
Musicality	5	5	10	5	
Creativity	4	4	8	4	
Improvisation	4	4	8	4	
Total (60 points)			53	26.5	
			88%		

Prepared Performance	Total		Notes
Pitch	5		-used looper -one man band -slow r&b
Rhythm	4		
Sync (with track)	4		
Musicality	5		
Style	5		
Communication	5		
Total (30 points)	28		
	93%		

Assessment Criteria (Keith)

Sight Reading	1	2	Total	Avg	Notes
Notation/pitch	1	1	2	1	-2nd one remained silent most of the time, other times were too soft to hear
Rhythm	1	1	2	1	
Sync (with track)	2	1	3	1.5	
Musicality	1	1	2	1	
Total (40 points)			9	4.5	
			23%		

Play by Ear	1	2	Total	Avg	Notes
Notation/pitch	3	2	5	2.5	
Rhythm	4	2	6	3	
Sync (with track)	4	3	7	3.5	
Musicality	2	2	4	2	
Total (40 points)			22	11	
			55%		

Call & Response (Improvisation)	1	2	Total	Avg	Notes
Pitch	4	5	9	4.5	
Rhythm	5	5	10	5	
Sync (with track)	4	5	9	4.5	
Musicality	3	4	7	3.5	
Creativity	2	4	6	3	
Improvisation	3	4	7	3.5	
Total (60 points)			48	24	
			80%		

Backing Accompaniment (Improvisation)	1	2	Total	Avg	Notes
Pitch	4	4	8	4	
Rhythm	4	5	9	4.5	
Sync (with track)	5	5	10	5	
Musicality	5	5	10	5	
Creativity	4	4	8	4	
Improvisation	4	4	8	4	
Total (60 points)			53	26.5	
			88%		

Prepared Performance	Total		Notes
Pitch	5		-pop singer-songwriter -played guitar and sang -he controlled the pulse
Rhythm	5		
Sync (with track)	5		
Musicality	5		
Style	5		
Communication	5		
Total (30 points)	30		
	100%		

Assessment Criteria (Mateo)

Sight Reading	1	2	Total	Avg	Notes
Notation/pitch	4	4	8	4	-more focused on getting the notes right than to play in time
Rhythm	4	4	8	4	
Sync (with track)	5	4	9	4.5	
Musicality	3	3	6	3	
Total (40 points)			31	15.5	
			78%		

Play by Ear	1	2	Total	Avg	Notes
Notation/pitch	4	3	7	3.5	-ask if he could write it down (administrator said no)
Rhythm/pulse	4	4	8	4	
Sync (with track)	4	5	9	4.5	
Musicality	3	4	7	3.5	
Total (40 points)			31	15.5	
			78%		

Call & Response (Improvisation)	1	2	Total	Avg	Notes
Rhythm	4	3	7	3.5	-groove-based response -2nd - struggled with shuffle
Sync (with track)	5	4	9	4.5	
Musicality	4	4	8	4	
Creativity	2	2	4	2	
Improvisation	3	3	6	3	
Total (50 points)			34	17	
			68%		

Backing Accompaniment (Improvisation)	1	2	Total	Avg	Notes
Rhythm	5	5	10	5	
Sync (with track)	5	4	9	4.5	
Musicality	4	4	8	4	
Creativity	2	3	5	2.5	
Improvisation	4	4	8	4	
Total (50 points)			40	20	
			80%		

Prepared Performance	Total		Notes
Rhythm	4		-looking at score the whole time -progressive rock
Sync (with track)	3		
Musicality	3		
Style	4		
Communication	3		
Total (25 points)	17		
	68%		

Assessment Criteria (Eddard)

Sight Reading	1	2	Total	Avg	Notes
Notation/pitch	3	2	5	2.5	-will improvise his own groove in parts he couldn't get -might have been able to do it if more time given
Rhythm	3	3	6	3	
Sync (with track)	4	3	7	3.5	
Musicality	3	3	6	3	
Total (40 points)			24	12	
			60%		

Play by Ear	1	2	Total	Avg	Notes
Notation/pitch	4	3	7	3.5	-Remembers the melody -will improvise his own groove in parts he couldn't get
Rhythm/pulse	4	4	8	4	
Sync (with track)	5	5	10	5	
Musicality	4	4	8	4	
Total (40 points)			33	16.5	
			83%		

Call & Response (Improvisation)	1	2	Total	Avg	Notes
Rhythm	5	5	10	5	-started playing and improvised on 1st listening -did not require to play the excerpt again -groove-based
Sync (with track)	5	5	10	5	
Musicality	5	5	10	5	
Creativity	5	4	9	4.5	
Improvisation	5	4	9	4.5	
Total (50 points)			48	24	
			96%		

Backing Accompaniment (Improvisation)	1	2	Total	Avg	Notes
Rhythm	5	5	10	5	-places his phone on the snare to alter the sound upon hearing the music (sensitive to tone) -groove-based <u>OP</u> -started playing and improvised on 1st listening -groove-based
Sync (with track)	5	5	10	5	
Musicality	5	5	10	5	
Creativity	4	3	7	3.5	
Improvisation	5	4	9	4.5	
Total (50 points)			46	23	
			92%		

Prepared Performance	Total		Notes
Rhythm	5		-progressive -meter modulation -solid solo, played around with rhythmic groupings -band was tight -snarky puppy sounding
Sync (with track)	5		
Musicality	5		
Style	5		
Communication	5		
Total (25 points)	25		
	100%		

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